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DEPARTMENT OF AGRICULTURE

Food and Nutrition Service

7 CFR Parts 271, 272 and 273

[FNS 2015–0038]

RIN 0584–AE41

Supplemental Nutrition Assistance Program: Student Eligibility, Convicted Felons, Lottery and Gambling, and State Verification Provisions of the Agricultural Act of 2014

AGENCY: Food and Nutrition Service (FNS), USDA.

ACTION: Final rule.

SUMMARY: This final rule implements four sections of the Agricultural Act of 2014 (2014 Farm Bill), affecting eligibility, benefits, and program administration requirements for the Supplemental Nutrition Assistance Program (SNAP). Section 4007 clarifies that participants in a SNAP Employment & Training (E&T) program are eligible for benefits if they enroll or participate in specific programs that will assist SNAP recipients in obtaining the skills needed for the current job market. Section 4008 prohibits anyone convicted of Federal aggravated sexual abuse, murder, sexual exploitation and abuse of children, sexual assault, or similar State laws, and who are also not in compliance with the terms of their sentence or parole, or are a fleeing felon, from receiving SNAP benefits. Section 4009 prohibits individuals with substantial lottery and gambling winnings from receiving SNAP benefits. Section 4015 requires all State agencies to have a system in place to verify income, eligibility, and immigration status.

DATES: Effective dates: This final rule is effective June 14, 2019.

ADDRESSES: SNAP Program Development Division, Food and Nutrition Service, USDA, 3101 Park Center Drive, Room 812, Alexandria, Virginia 22302.

FOR FURTHER INFORMATION CONTACT: Sasha Gersten-Paal, Branch Chief, Certification Policy Branch, Program Development Division, Food and Nutrition Service (FNS), 3101 Park Center Drive, Room 810, Alexandria, Virginia 22302, (703) 305–2507, *sasha.gersten-paal@fns.usda.gov.*

SUPPLEMENTARY INFORMATION:

Background

Section 4007: Student Eligibility Disqualifications

Background

Section 6(e) of the Food and Nutrition Act of 2008 (the Act) (7 U.S.C. 2015(e)) generally prohibits students enrolled at least half-time in an institute of higher education from receiving SNAP. There are several exceptions to the general prohibition, and section 4007 of the 2014 Farm Bill amended the exception at section 6(e)(3)(B) of the Act (7 U.S.C. 2015(e)(3)(B)) for students who are enrolled at least half-time at an institution of higher education through a SNAP Employment and Training (E&T) program. Under the new requirements, these students can be eligible to participate in SNAP only if the E&T program is part of a program of career and technical education (as defined by the Carl D. Perkins Career and Technical Education Act of 2006 (Perkins Act)) that may not be completed in more than 4 years at an institute of higher education (as defined in section 102 of the Higher Education Act of 1965 (20 U.S.C. 1002)); or is limited to courses for remedial education, basic adult education, literacy, or English as a second language. This amendment does not affect the other exceptions in section 6(e) of the Act. The U.S. Department of Agriculture (the Department) proposed modifications in 7 CFR 273.5(b)(11)(ii) to incorporate these changes in section 4007.

The proposed rule also revised the description of acceptable E&T education components at 7 CFR 273.7(e)(1)(vi) to include courses or programs of study that are part of a program of career and technical education as defined in section 3 of the Perkins Act. The substance of the other criteria at section 273.7(e)(1)(vi) remain unchanged, with the exception of a technical correction. The proposed rule inadvertently removed language clarifying that educational components must directly enhance the employability of the participants and a direct link between education and job-readiness must be established for a component to be approved. The final rule restores this language. Individuals participating in remedial courses, basic adult education, or English as a second language continue to qualify for the student exemption. These courses may be offered concurrently or contextually with courses or programs of study that are part of a program of career and technical education.

Defining Career and Technical Education Programs

Section 3 of the Perkins Act (20 U.S.C. 2302) offers a general definition of the term ''career and technical education'' and the proposed rule noted that the Department believes State agencies are in the best position to determine what courses or programs of study meet the definition. A program does not have to be receiving Perkins funding for a State agency to consider it eligible; it would just need to meet the general definition, as determined by the State agency. Commenters were generally supportive of granting States this discretion in identifying which programs meet the general definition.

Some commenters asked that the final rule be clear that all State agencies must at least adopt the basic definition of career and technical education, and then have State-specific criteria. The Department believes the proposed language at section 273.5(b)(11)(ii) is sufficient to ensure that States use Perkins Act criteria to identify which programs meet the general definition and is adopting the provisions as proposed.

Four-Year Programs

Section 4007 provides that eligible courses or programs of study may be completed in not more than four years. The proposed rule explained that students participating in qualifying courses or programs of study that are designed to be completed in up to four years, but may actually take longer than four years to complete, satisfy this requirement. Commenters were unanimously supportive of this explanation and the Department is adopting the provision as proposed.

Section 4008: Eligibility Disqualifications for Certain Convicted Felons

Background

Section 4008 of the 2014 Farm Bill added a new section 6(r) to the Act (7 U.S.C. 2015(r)) prohibiting any individual from receiving SNAP benefits if the individual is convicted of certain crimes and not in compliance with the terms of the sentence, is a fleeing felon, or is a parole or probation violator (as described in section 6(k) of the Act) from receiving SNAP benefits. The certain crimes in section 4008 are: (i) Aggravated sexual abuse under section 2241 of title 18, United States Code; (ii) murder under section 1111 of title 18, United States Code; (iii) sexual exploitation and other abuse of children under chapter 110 of title 18, United States Code; (iv) a Federal or State offense involving sexual assault, as defined in section 40002(a) of the Violence Against Women Act of 1994 (42 U.S.C. 13925(a)); and (v) an offense under State law determined by the Attorney General to be substantially similar to an offense in (i) through (iii) above. The Department proposed to codify this change in a new section at 7 CFR 273.11(s).

Section 4008 requires an individual applying for SNAP benefits to attest to whether the applicant or any other member of the household was convicted of any of the enumerated offenses. In addition, although those disqualified from receiving SNAP benefits under this provision are not eligible members of a SNAP household, the statute requires that their income and resources be included in the eligibility determinations for the other eligible household members.

As provided for in section 4008(c), the amendments do not apply to convictions for conduct occurring on or before February 7, 2014, the date of enactment of the 2014 Farm Bill.

Disqualification

The proposed rule added a new section at 7 CFR 273.11(s) to include the section 4008 provisions. Before passage of the 2014 Farm Bill, section 6(k) of the Act and section 273.11(n) already prohibited certain fleeing felons and probation and parole violators from receiving SNAP benefits. Standards for determining whether someone is a fleeing felon or probation or parole violator are addressed in section 273.11(n), finalized in the ''Clarification of Eligibility of Fleeing Felons Final Rule,'' published on September 10, 2015 (80 FR 54410). Standards for fleeing felons under section 273.11(n) should apply to the new eligibility disqualifications for certain convicted felons.

Commenters were supportive of the Department's interpretation of section 4008 in section 273.11(s). Some commenters, including State agencies, requested that the Department provide additional information—through either regulations or guidance—on what crimes under State law may be determined by the Attorney General to be substantially similar offenses. The Department agrees that additional guidance from the Department of Justice will be needed for State agencies to successfully implement section 273.11(s)(1)(v) of the final rule and has requested assistance on this matter from the Department of Justice. Information from the Department of Justice is still forthcoming; therefore, the Department is adopting this provision as proposed and will provide further guidance when available.

This final rule also makes a conforming change to include individuals convicted of certain felonies not compliant with the terms of their sentence as ineligible household members listed at 7 CFR 273.1. A reference to the newly recreated 7 CFR 273.11(s) has been added to 273.1(b)(7).

Attestation

The proposed rule added section 273.2(o), which would require every individual applying for SNAP benefits to attest to whether the individual, or any member of the individual's household, has been convicted of a crime covered by this section and whether the household member is in compliance with the terms of their sentence. Section 4008 requires an attestation as to whether an individual has been convicted of one of the enumerated offenses. The Department has made the decision to also require an attestation as to whether the individual is in compliance with the sentence. This section provided basic standards to meet the attestation requirement to help ensure consistency across State agencies, while allowing some State discretion.

Proposed language at section 273.2(o) directed State agencies to update their application processes to include the attestation requirement. It allowed for this to be done in writing, verbally, or both, provided that the attestation is legally binding in the law of the State, and the method chosen is reasonable and consistently applied. The proposed rule also required State agencies to verify the felon status when an applicant affirmatively attested that the applicant or a member of the household had been convicted of a felony identified in section 4008 and was not in compliance with the sentence, or when attestations were questionable. In conducting verifications, the rule proposed that State agencies were also responsible for establishing reasonable, consistent standards, evaluating each case separately, and documenting the case file accordingly.

The Department received nine comments on the proposed implementation of section 4008. Though commenters were largely supportive or silent on how the disqualifications under this section were to be codified under 7 CFR 273.11(s), they shared some concerns for how the proposed language at section 273.2(o) addressed the application process and verifying attestations.

In updating the application process, commenters urged the Department to prohibit States from requiring individuals and/or household members to come into the office solely to complete an attestation. Commenters also recommended that State agencies be required to explain the attestation to clients to ensure the disqualification is understood prior to attestation—particularly that this disqualification only applies to those who are out of compliance with the terms of their sentence. The Department agrees that clear communication with households is vital to the application process. Similarly, completing the attestation requirement alone should not create a need for a household to visit their local office as this is not a prudent use of administrative resources. Therefore, the final rule is adopting additional language at section 273.2(o)(1) to ensure State agencies explain the attestation requirement to applicant households during the application process and to prevent State agencies from compelling applicants to come to the office solely to complete or discuss an attestation. As with all other program materials, this explanation must meet bilingual requirements at 272.4(b).

Comments received from State agencies as well as advocacy groups raised concerns with how to verify attestations. State agencies shared that verifying this new component of the application process may be challenging as there is no national database available that would allow States to conduct the verification. They also cited the associated staff resources needed to complete this requirement as evidence that meeting the requirement as proposed would be burdensome and overly difficult. Advocates agreed with the Department that the State agency, not the individual, is best suited to

verify a household member attestation that there is a convicted felon in the household who is complying with the terms of their sentence. They also agreed that verifying this information should not delay application processing beyond the required processing timeframes. The Department maintains this is a responsibility of the State agency but recognizes the concerns that the proposed requirements for verifying attestations would be onerous.

Therefore, in response to these comments, the Department is revising the proposed language at section 273.2(o)(3) and adding new paragraph 273.2(o)(4). Under the revised section 273.2(o)(3), State agency verification of attestations shall be limited to attestations that are considered questionable. The State agency shall follow the standards established under section 273.2(f)(2) to determine whether an attestation is questionable. This language is also incorporated into section 273.2(b)(5)(i). The revised section 273.2(o)(3) also explains that, when verifying an attestation, the State agency must verify both that the individual has been convicted of one of these crimes and that the individual is out of compliance with the terms of the sentence. Section 273.2(o)(4) maintains that application processing shall not be delayed beyond required processing timeframes solely because the State agency has not obtained verification of an attestation. The State agency shall continue to process the application while awaiting verification. If the State agency is required to act on the case without being able to verify an attestation in order to meet the time standards in sections 273.2(g) or 273.2(i)(3), the State agency shall process the application without consideration of the individual's felony and compliance status.

Section 4009: Lottery and Gambling Winners

Background

Section 4009 of the 2014 Farm Bill provides that any household that receives substantial lottery or gambling winnings, as determined by the Secretary, must lose eligibility for benefits immediately upon receipt of winnings. It also requires that those households remain ineligible until they meet the allowable financial resources and income eligibility requirements of the Act. Section 4009 also requires the Secretary to set standards for each State agency to establish agreements, to the maximum extent practicable, with entities responsible for the regulation or sponsorship of gaming in the State (gaming entities) to identify SNAP individuals with substantial winnings. The proposed rule added provisions regarding the disqualification based on receipt of substantial winnings in section 273.11(r), agreements between State agencies and gaming entities in section 272.17, and requirements for households to report substantial winnings in section 273.12. The final rule adopts the proposed provisions with changes discussed below.

Disqualification for Substantial Lottery or Gambling Winnings

Section 4009 gives the Secretary authority to define what amount constitutes substantial lottery and gambling winnings, that when received by a household, results in an immediate disqualification for SNAP benefits. The proposed rule defined substantial winnings as $25,000 or more, before taxes or other amounts are withheld, won in a single game.

Of the 19 comments received regarding the lottery provision, only 10 commenters discussed the $25,000 proposed threshold, the definition of substantial based on gross versus net winnings, and the disqualification to the entire household. Three of the 10 commenters agreed with the definition of substantial winnings as defined in the proposed rule. Five commenters expressed concern about the definition of substantial winnings being based on gross, not net, winnings. These five commenters noted that if substantial taxes are withheld or intercepted for debt collection, this would result in the household receiving less than $25,000. One of the five comments addressing net winnings suggested that the Department change the threshold to $50,000 after taxes and other amounts withheld and requested that the Department distinguish between the definitions of lottery and gambling winnings. While the Department appreciates the comments on considering net versus gross winnings, it is impractical for a State agency to collect information on net winnings and would result in undue State burden. In addition, if an individual's net winnings cause the household to fall below the allowable SNAP income and resource requirements, the household may reapply for SNAP benefits.

One commenter questioned why the entire household must be disqualified for substantial winnings. The Department does not have discretion to limit the disqualification for substantial lottery and gambling winnings to only the individual that receives the winnings, and not the entire household. Section 4009 specifically imposes ineligibility for the household in which a member receives substantial lottery or gambling winnings, not just the individual.

As to the comment suggesting that disqualification be based on either lottery or gambling winnings, but not both, the statute also bases the disqualification on ''lottery or gambling winnings.'' Therefore, either substantial lottery or gambling winnings result in disqualification. The Department does not see a rationale for differentiating between lottery and gambling winnings.

Three comments suggested that the $25,000 threshold for substantial winnings in the proposed rule was too high. One of these comments suggested that the Department change the threshold to $2,250 because it aligns with the non-elderly/disabled resource limit in section 5(g) of the Act, and is already programmed in State eligibility systems, thereby easing State administrative application of this provision. Another commenter suggested lowering the threshold to $5,000. The last of the three comments requested that the threshold be optional to account for States with lower, more restrictive resource limits. Taking into consideration the varied comments, the Department has decided to align the definition of substantial lottery and gambling winnings with the statutory resource limit for elderly or disabled households in the final rule. The Department believes this change will simplify administration of the provision and enhance program integrity. Aligning the threshold with the non-elderly/disabled resource limit would restrict eligibility for elderly or disabled households whose winnings exceed the lower resource limit but may not meet or exceed the higher, elderly or disabled resource limit. Imposing a limit for all households linked to the resource limit for elderly or disabled households balances the intent to enhance program integrity with ensuring that households with small winnings can continue to participate in the program up to the statutory resource limit.

Consequently, the Department is modifying the final rule regulatory text regarding the threshold for substantial winnings. In the final rule, substantial lottery or gambling winnings are defined as a cash prize won in a single game, before taxes or other amounts are withheld, which is equal to or greater than the resource limit for elderly or disabled households as defined in 7 CFR 273.8(b). For administrative simplicity, all households certified to receive SNAP benefits will be subject to this definition of substantial winnings, regardless of whether they contain an

elderly or disabled member. This rule creates a new section 273.11(r) to codify the disqualification and definition.

Adjustment for Inflation

In the proposed rule, the Department intended to adjust the $25,000 lottery and gambling threshold for inflation by recalculating the threshold each fiscal year and rounding the amount to the nearest $5,000. The Department received four comments regarding annually adjusting the lottery and gambling threshold for inflation. One commenter supported adjusting the threshold for inflation, while three commenters disagreed with adjusting for inflation annually. These three commenters noted that adjusting the threshold annually would increase State administrative burden.

Since the lottery and gambling threshold for this provision now aligns with the resource limit for elderly or disabled households, the threshold shall be adjusted for inflation in accordance with 7 CFR 273.8(b)(1) and (2). The threshold shall be rounded down to the nearest $250 increment to reflect the changes for the 12-month period ending the preceding June in the Consumer Price Index for All Urban Consumers published by the Bureau of Labor Statistics of the Department of Labor. State agencies will continue to receive an updated resource limit annually in the Cost of Living Adjustment Memorandum, which will indicate the lottery and gambling substantial winnings threshold amount. In Fiscal Year 2019, the Federal resource limit for elderly or disabled households is $3,500. The Department believes that aligning the threshold with the statutory resource limit and the current procedure for adjustment for inflation, will minimize State administrative burden. This change is codified in the final rule regulatory text at 273.11(r)(2)(ii).

Cooperative Agreements

The Department proposed to add new section 272.17 to codify the section 4009 requirement that State agencies, to the maximum extent practicable, establish agreements with gaming entities in order to identify individuals within the state with substantial winnings who are members of a SNAP household. The Department received five comments addressing this requirement. One comment noted that the match is critical, effective, and reduces burden on SNAP households. Four comments expressed concern regarding State agencies establishing cooperative agreements with gambling and lottery entities, noting that establishing the agreements will be problematic, burdensome, and increase costs to the State. Of these four comments, one comment asked for clarity on what would be considered a good faith effort and a practical number of gaming entities with which to establish agreements.

The Department appreciates the concerns expressed about establishing agreements with gaming entities; however, section 4009 requires the establishment of these agreements to the maximum extent practicable. In implementing this requirement, the Department understands that the types of lottery and gambling activities allowed within a State, and the administration and oversight of these games, vary from State to State. For example, some States may have a large number of small entities that pay out only minimal winnings, and it may not be feasible to enter into agreements with all of these entities. State agencies are expected to make a good faith effort to include as many gaming entities in their implementation of this rule as practicable. While households must always report substantial lottery or gambling winnings as proposed in section 273.12(a)(5)(iii)(G) (discussed below), if a State agency and gaming entity cannot come to an agreement after the State agency made a good faith effort, then the State agency would not need to continue to pursue an agreement with that gaming entity at that time. If there are no gaming entities in the State, the State agency is not expected to establish cooperative agreements.

One commenter requested clarity on how States should detect out-of-State winners. Section 4009 does not differentiate the disqualification for receipt of substantial lottery and gambling winnings based on in-State or out-of-State winnings. States are not required to enter into cooperative agreements with out-of-State gaming entities. However, households are required to report substantial winnings, regardless if they are won in-State or out-of-State. If a State agency becomes aware of a household member winning substantial winnings from a gaming entity outside of the State, then the State would follow procedures under 273.12(c)(3) for unclear information if that information is not verified and clear. The Department believes the proposed rule was sufficiently clear on the requirement for State agencies to establish cooperative agreements with gaming entities, and is not making changes in the final rule, but will clarify as needed with additional guidance as States implement the provision.

One commenter questioned whether gaming entities would be compensated for costs associated with establishing cooperative agreements and suggested that the costs included in the proposed information collection appeared to be minimal. The Department is not authorized to reimburse gaming entities for their business costs, but the associated allowable State agency costs of cooperative agreements would be reimbursed at 50 percent in accordance with 277.4(b). The Department will clarify as needed with additional guidance as States implement the provision.

In the final rule, the Department is revising the requirements for the State Plan of Operation in 272.2(d)(1) to include information about cooperative agreements into which the State has entered with gaming entities.

Privacy Concerns

The Department proposed that a cooperative agreement established between the State agency and a gaming entity would specify that the gaming entity would share information about individuals with substantial winnings with the State agency as frequently as is feasible to identify SNAP recipients with substantial winnings. The Department received four comments that expressed concern about safeguarding confidential information of SNAP applicants and recipients. As noted in the proposed rule, cooperative agreements are to solely allow for the gaming entities to transmit information to State agencies; State agencies are prohibited from sharing any information about SNAP households with gaming entities. Cooperative agreements shall specify the type of information shared by the gaming entity and include safeguards limiting the release and disclosure of personally identifiable information to parties outside of those included in the agreement. The Department has incorporated a reference to 272.1(c), which protects privacy concerns, at 272.17(b) in the final rule and believes this adequately addresses the concerns.

Self-Reporting

The Department proposed to add paragraph 273.12(a)(1)(viii) and revise paragraphs 273.12(a)(5)(iii)(E) and 273.12(a)(5)(vi)(B) to require households to self-report substantial winnings to the State agency administering the household's SNAP benefits, in accordance with the reporting timeframes outlined in section 273.12(a)(2). The Department received five comments about SNAP recipients self-reporting substantial winnings to

State agencies. Of the five comments, one comment suggested that State agencies should rely on self-reporting, the media, and Internal Revenue Service (IRS) yearly tax reports to identify SNAP recipients who win a substantial amount of lottery and gambling winnings. Another of the five comments noted that gambling winnings are already tracked by the IRS and easy to find. One commenter disagreed with adding the reporting requirement, while another comment encouraged the Department to ensure that reporting requirements do not unduly burden SNAP households. The last of the five comments supported the self-reporting requirement and suggested that the disqualification for not reporting substantial lottery and gambling winnings should not extend to the entire household, but only to the individual who did not report.

The Department appreciates the comments received concerning the burden to SNAP households that must self-report substantial winnings. However, households certified to receive SNAP must report substantial winnings so that the State agency may immediately act on household changes, as required by section 4009.

The Department is adopting the regulatory text from the proposed rule as final, and is making two clarifications due to the previous publication of the ''Supplemental Nutrition Assistance Program (SNAP): Eligibility, Certification, and Employment and Training Provisions of the Food, Conservation and Energy Act of 2008'' final rule on January 6, 2017 (82 FR 2010) (FCEA final rule), which made changes to section 273.12(a)(2). The Department is clarifying that, in accordance with section 273.12(a)(2), certified SNAP households must report substantial lottery and gambling winnings, as defined by this final rule, within 10 days of the date the household receives the substantial winnings or, at the State agency's option, within 10 days of the end of the month in which the household received the winnings. Additionally, 273.12(a)(5)(iii)(E) was re-designated as 273.12(a)(5)(iii)(G) in the FCEA final rule, and, therefore, the Department is codifying the requirement for households to self-report substantial winnings at section 273.12(a)(5)(iii)(G) in the final rule.

Informing SNAP Households of the Disqualification for Substantial Lottery and Gambling Winnings

The Department received four comments addressing the proposed requirement in section 272.17(c)(4) for State agencies to provide households with a notice of adverse action as described in section 273.13 before terminating benefits based on receipt of substantial lottery and gambling winnings. One of the four comments requested clarity on how States may inform SNAP households of the new lottery and gambling disqualification, and the rules for re-establishing eligibility for SNAP. Two of the four comments agreed with the Department's position that it is not necessary to include a question on the initial SNAP application asking applicants if anyone in the household has ever received substantial lottery or gambling winnings as section 4009 is aimed at households already participating in SNAP. The last of the four comments requested clarity on notices informing households of its ineligibility for SNAP.

As noted in the preamble to the proposed rule, this disqualification applies to participating SNAP households. Current regulations at 7 CFR 273.2(e)(1) require the State agency to inform households during the interview of their rights and responsibilities, including the households' responsibility to report changes. Therefore, at the time a household is certified to receive SNAP, the State agency is required to inform the household that it may lose eligibility for SNAP if a household member receives substantial lottery and gambling winnings.

States have flexibility in determining how to best inform households that have been disqualified due to receipt of substantial lottery or gambling winnings of the requirements for re-establishing eligibility. Such information may be provided in various ways, including at the time of case closure and/or the notice of adverse action. Including information in the notice of adverse action about how households may regain eligibility is a best practice for informing households that have been disqualified due to significant lottery or gambling winnings. The Department is making no changes in the final rule because it believes that the rule as proposed sufficiently addressed the above issues.

Verification of Data Matches

In new section 272.17(c), the Department proposed to give State agencies discretion to determine whether information about a SNAP household member's receipt of substantial lottery or gambling winnings received through data matches with gaming entities is verified upon receipt. The Department received three comments addressing verification of data matches. One commenter supported this discretion; two commenters recommended requiring States to send a notice to households to verify lottery or gambling winnings information received from data matches with gaming entities before disqualifying households. As noted in the proposed rule, data received through cooperative agreements with gaming entities may come from a wide variety of gaming entities (*e.g.* public or private entities; local, statewide or national entities) with varying degrees of reliability.

Based upon the comments and further review, the Department has determined that information from data matches regarding lottery or gambling winnings does not fall within the definition in 273.2(f)(9)(iii) of information that is ''verified upon receipt.'' However, State agencies have existing discretion in 273.2(f)(2) and (3) to determine what information is questionable and requires verification, so long as the criteria used is consistent. In this final rule, the Department is clarifying that the standards regarding verification in 273.2(f)(2) and (3) apply to information from data matches regarding lottery and gambling winnings.

In section 272.17(c)(4), the Department proposed requiring State agencies to send households a notice of adverse action, in accordance with section 273.13 and prior to termination, when the household receives substantial winnings during their certification period. For households found to have received substantial winnings at the time of their case's recertification, the proposed rule stated that the State agency would provide these households with a notice of denial, per section 273.10(g)(2).

Additionally, since the publication of the proposed rule, the FCEA final rule was published on January 6, 2017. The FCEA final rule updated procedures at section 273.12(c)(3) on how to treat unclear information, including when the State must send households a Request for Contact (RFC) to resolve unclear information. When information about a household's receipt of substantial winnings during the certification period is unclear, the State would follow the procedures outlined at section 273.12(c)(3).

One of these commenters also suggested that State agencies request information on deductions withheld from the household's winnings when contacting a household after the State has learned that the household has received substantial winnings. As previously discussed, basing the disqualification on net, instead of gross,

winnings would be overly burdensome. Therefore, the Department will not require States agencies to request information about deductions from winnings.

The Department believes that the procedures established in the proposed rule and those updated in the FCEA final rule give households sufficient notice when action is taken on their case due to receipt of substantial winnings and, therefore, is adopting the provisions as proposed.

Eligibility for Previously Disqualified SNAP Households

Section 4009 requires that households disqualified for substantial winnings remain ineligible until they again meet the allowable financial resources and income eligibility requirements of the Act. The Department received one comment that suggested adding a timeframe for when an applicant may re-apply for SNAP benefits under program income and resource requirements and to include an appeals process when a household is disqualified under this rule. Since section 4009 provides that a household remain ineligible ''until the household meets the allowable financial resources and income eligibility requirements,'' specifying a timeframe is not appropriate since any set timeframe may not reflect the circumstances under which a disqualified household does become eligible again. This final rule adopts the proposed rule's language that previously disqualified households remain ineligible until they meet the income and eligibility requirements outlined in sections 273.8 and 273.9. In addition, the right to request a fair hearing under section 273.15 for an action that affects a household's participation in the program applies to households disqualified under this rule for substantial lottery and gambling winnings without need for an explicit statement.

The Department received three comments requesting guidance on how the new lottery and gambling disqualification in this rule applies to households certified for SNAP under categorical eligibility requirements defined at 7 CFR 273.2(j). Under this rule, households certified to receive SNAP benefits under section 273.2(j) that lose eligibility because an individual member received substantial lottery or gambling winnings, as defined by this rule, will remain ineligible until they meet the income and eligibility requirements in the Act detailed in sections 273.8 and 273.9, as required by section 4009. The Department will make no changes to the final rule.

Section 4015: Mandating Certain Verification Systems

Section 4015 of the 2014 Farm Bill amended section 11(p) of the Act (7 U.S.C. 2020(p)) to require State agencies to use an immigration status verification system established under section 1137 of the Social Security Act (SSA) (42 U.S.C. 1320b–7) and an income and eligibility verification system, in accordance with standards set by the Secretary. Before the 2014 Farm Bill, State agencies were not required to use either of these verification systems.

Immigration Status and Verification Systems

Background

Current regulations at 7 CFR 273.2(f)(1)(ii) require that State agencies verify the eligible immigration status of all non-citizens applying for SNAP benefits but do not specify the system that State agencies must use. The amendments made by the 2014 Farm Bill mandate that State agencies use an immigration status verification system established under section 1137 of the SSA. Section 1137(d)(3) of the SSA (42 U.S.C. 1320b–7(d)(3)) requires verification of immigration status ''through an automated or other system'' designated by the Immigration and Naturalization Service (INS) for use by the States. The only immigration status verification system currently designated under section 1137 of the SSA is the Systematic Alien Verification for Entitlements (SAVE) Program.

SAVE is an inter-governmental service accessible by Federal, State, and local benefit-granting agencies and licensing bureaus that are authorized by law to verify immigration status. State agencies use the SAVE system to verify the immigration status of SNAP applicants, ensuring benefits are only provided to individuals whose citizenship or immigration status allows them to receive SNAP. As discussed in the preamble to the proposed rule, under the Homeland Security Act of 2002 (Pub. L. 107–296), INS functions transferred from the Department of Justice to the newly created Department of Homeland Security (DHS). Within DHS, the U.S. Citizenship and Immigration Services (USCIS) administers the SAVE program.

USCIS has confirmed that the only two ways a SNAP State agency can currently verify immigration status with USCIS are both through the SAVE system. Under electronic verification, a State agency submits a request electronically and the SAVE system either confirms the applicant's status or requests submission of additional information. Under paper-based verification, a State agency mails a completed Form G–845, Verification Request, with a copy of the applicant's documentation, to a USCIS State Verification Office. A State agency may also attach a Form G–845 Supplement, Document Verification Request Supplement, to request more detailed information on an applicant's immigration status, citizenship, and sponsorship. To conduct either electronic or paper-based verification through the SAVE system, the State agency must first sign a memorandum of agreement with USCIS.

Mandatory Use of SAVE

The Department proposed to amend regulations at 7 CFR 272.11(a) and 273.2(f)(1)(ii)(A) to require States to use an immigration status verification system established under section 1137 of the SSA (42 U.S.C. 1320b–7) when verifying immigration status of SNAP applicants. The Department also proposed to clarify in section 273.2(f)(1)(ii) and (f)(10) that, even though households are still required to submit documentation to verify the immigration status of household members who are non-citizens, State agencies must also verify the validity of that status with USCIS.

As discussed in the preamble to the proposed rule, all 53 State agencies (including the District of Columbia, Guam, and the Virgin Islands) have indicated to FNS that they already use the SAVE system to verify immigration status. Commenters were, therefore, generally supportive of the proposed changes, with one noting that SAVE is a system that States are already using and requiring its use ensures compliance with statutory and regulatory requirements without imposing new burdens or costs on States. Three commenters made requests for clarification.

One commenter asked the Department to clarify that the use of SAVE is limited to verifying the status of any non-citizen household member applying for SNAP, but not for any non-applicant household members, including individuals applying on behalf of a household. As per current regulations, the status of non-applicant household members does not need to be verified. The Department believes the proposed language at section 273.2(f)(10) requiring documentation and verification ''for each alien applying for SNAP benefits'' is sufficiently clear and is therefore not adopting additional clarifications for non-applicant households in the final rule.

Another commenter asked the Department to follow a State agency's policy and clarify that a delay in receipt of data from the SAVE system is not a basis for a delay in application processing timelines. Under the State policy, if all other factors of eligibility have been established and the non-citizen applicant is otherwise eligible, benefits must be granted while awaiting a SAVE response. This policy is consistent with existing regulations at section 273.2(f)(1)(ii)(B) and no change in the final rule is necessary.

A third commenter noted the SAVE system can only verify that the information provided by an applicant is accurate at one point in time; if immigration status has recently changed, SAVE may not always be updated to reflect the current status. The commenter requested the Department clarify that, if an applicant provides paper documentation indicating a new status, State agencies should be allowed to use prudent judgment to determine the status of the applicant. As the Department believes the regulatory requirements around immigration status verification are already consistent with other verification practices for questionable information, no additional clarifying language has been added to the final rule. The Department believes current verification procedures for questionable information are sufficient for these rare occurrences.

The Department also proposed in section 273.2(f)(10)(vi) to allow, but not require, State agencies to use SAVE to confirm whether an affidavit of support has been executed for a sponsored non-citizen. No comments were submitted on this issue, and the Department adopts the provision with technical edits to ensure consistent terminology.

Technical Corrections

When INS ceased to exist on March 1, 2003, its functions transferred from the Department of Justice to the DHS. Within DHS, USCIS administers the SAVE program, as well as overseeing lawful immigration to the United States and naturalization of new American citizens. The proposed rule updated references from INS to USCIS throughout parts 271, 272, and 273 accordingly. Commenters were either supportive of or silent on these changes, and the final rule adopts the changes as proposed.

Income and Eligibility Verification System (IEVS)

Section 4015 of the 2014 Farm Bill requires State agencies to use an income and eligibility verification system (IEVS), in accordance with standards set by the Secretary. As discussed in the preamble to the proposed rule, standards for the optional use of IEVS already exist at sections 272.8(a)(1), 273.2(b)(2), and 273.2(f)(9). In accordance with the statutory changes, the Department proposed amending these regulations to change the use of IEVS from an option to a requirement. State agencies must follow standard verification procedures for IEVS matches. As there were no substantive comments on these proposed changes, the final rule adopts the changes as proposed.

III. Procedural Matters

Executive Order 12866 and 13563

Executive Orders 12866 and 13563 direct agencies to assess all costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health and safety effects, distributive impacts, and equity). Executive Order 13563 emphasizes the importance of quantifying both costs and benefits, of reducing costs, of harmonizing rules, and of promoting flexibility.

This final rule has been determined to be not significant and was not reviewed by the Office of Management and Budget (OMB) in conformance with Executive Order 12866.

Regulatory Impact Analysis

This rule has been designated as not significant by the Office of Management and Budget, therefore, no Regulatory Impact Analysis is required.

Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601–612) requires Agencies to analyze the impact of rulemaking on small entities and consider alternatives that would minimize any significant impacts on a substantial number of small entities. Pursuant to that review, it has been certified that this rule would not have a significant impact on a substantial number of small entities. While there may be some burden/impact on State agencies and small entities involved in the gaming industries, the impact is not significant as the burden would be on State agencies to enter into appropriate cooperative agreements.

Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local and tribal governments and the private sector. Under section 202 of the UMRA, the Department generally must prepare a written statement, including a cost benefit analysis, for proposed and final rules with ''Federal mandates'' that may result in expenditures by State, local or tribal governments, in the aggregate, or the private sector, of $100 million or more in any one year. When such a statement is needed for a rule, section 205 of the UMRA generally requires the Department to identify and consider a reasonable number of regulatory alternatives and adopt the most cost effective or least burdensome alternative that achieves the objectives of the rule.

This final rule does not contain Federal mandates (under the regulatory provisions of Title II of the UMRA) for State, local and tribal governments or the private sector of $100 million or more in any one year. Thus, the rule is not subject to the requirements of sections 202 and 205 of the UMRA.

Executive Order 12372

SNAP is listed in the Catalog of Federal Domestic Assistance Programs under 10.551. For the reasons set forth in the **Federal Register** notice published June 24, 1983 (48 FR 29115), this program is included in the scope of Executive Order 12372 which requires intergovernmental consultation with State and local officials.

Federalism Summary Impact Statement

Executive Order 13132 requires Federal agencies to consider the impact of their regulatory actions on State and local governments. Where such actions have federalism implications, agencies are directed to provide a statement for inclusion in the preamble to the regulations describing the agency's considerations in terms of the three categories called for under section (6)(b)(2)(B) of Executive Order 13132. The Department has considered the impact of this rule on State and local governments and has determined that this rule does not have federalism implications. Therefore, under section 6(b) of the Executive Order, a federalism summary is not required.

Executive Order 12988, Civil Justice Reform

This final rule has been reviewed under Executive Order 12988, Civil Justice Reform. This rule is intended to have preemptive effect with respect to any State or local laws, regulations or policies which conflict with its provisions or which would otherwise impede its full and timely implementation. This rule is not

intended to have retroactive effect unless so specified in the Effective Dates section of the final rule. Prior to any judicial challenge to the provisions of the final rule, all applicable administrative procedures must be exhausted.

Civil Rights Impact Analysis

The Department has reviewed this final rule in accordance with USDA Regulation 4300–4, ''Civil Rights Impact Analysis,'' to identify any major civil rights impacts the rule might have on program participants on the basis of age, race, color, national origin, sex or disability. After a careful review of the rule's intent and provisions, the Department has determined that the changes to SNAP regulations in this proposed rule are driven by legislation and therefore required. The Department specifically prohibits the State and local government agencies that administer the program from engaging in discriminatory actions. Discrimination in any aspect of program administration is prohibited by SNAP regulations, the Food and Nutrition Act of 2008, the Age Discrimination Act of 1975, section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990 and Title VI of the Civil Rights Act of 1964. State agencies that participate in SNAP must take reasonable steps to ensure that persons with Limited English Proficiency (LEP) have meaningful access to programs, services, and benefits. This includes the requirement to provide bilingual program information and certification materials and interpretation services to single-language minorities in certain project areas. SNAP State agencies that do not provide meaningful access for LEP individuals risk violating prohibitions against discrimination based on National Origin in the Food and Nutrition Act of 2008, as amended, Title VI of the Civil Rights Act of 1964 (Title VI), and SNAP program regulations. SNAP State agencies must also ensure equal opportunity access for persons with disabilities. This includes ensuring that communications with applicants, participants, members of the public, and companions with disabilities are as effective as communications with people without disabilities. State Agencies that do not provide persons with disabilities equal opportunity access to programs may risk violating prohibitions against disability discrimination in the Rehabilitation Act of 1978, the American with Disabilities Act (ADA), and SNAP program regulations. Where State agencies have options, and they choose to implement a certain provision, they must implement it in such a way that it complies with non-discrimination requirements and the regulations at 7 CFR 272.6.

Executive Order 13175

Executive Order 13175 requires Federal agencies to consult and coordinate with Indian Tribes on a government-to-government basis on policies that have Tribal implications, including regulations, legislative comments or proposed legislation, and other policy statements or actions that have substantial direct effects on one or more Indian Tribes, on the relationship between the Federal Government and Indian Tribes, or on the distribution of power and responsibilities between the Federal Government and Indian Tribes. On August 15, 2018, the Department participated in a Tribal Consultation on the Lottery provisions of this rule. There were no significant comments. Tribal organizations with gaming facilities may be approached by the State(s) in which they are located to enter into cooperative agreements to identify individuals with significant lottery or gambling winnings. The Department also briefed Indian Tribes on the provisions of this rule at a listening session on February 14, 2019. Indian Tribes were subsequently provided the opportunity to consultation on this rule but the Department received no feedback. If an Indian Tribe requests future consultation, the Department will work to ensure meaningful consultation is provided.

Paperwork Reduction Act

The Paperwork Reduction Act of 1995 (44 U.S.C. Chap. 35; 5 CFR 1320) requires the Office of Management and Budget (OMB) approve all collections of information by a Federal agency before they can be implemented. Respondents are not required to respond to any collection of information unless it displays a current valid OMB control number.

In accordance with the Paperwork Reduction Act of 1995, this final rule will contain information collections that are subject to review and approval by the OMB; therefore, the Department submitted the proposed rule for public comment regarding changes in the information collection burden resulting from the provisions in this final rule.

In accordance with the Paperwork Reduction Act of 1995, the notice included in the proposed rule invited the general public and other public agencies to comment on the proposed information collection. This is a new collection for final rule, Supplemental Nutrition Assistance Program: Student Eligibility, Convicted Felons, Lottery and Gambling, and State Verification Provisions of the Agricultural Act of 2014 (RIN 0584–AE41). Section 4009 of the Agricultural Act of 2014 (the Act) makes SNAP participants with substantial lottery and gambling winnings ineligible for SNAP benefits. Section 4009 of the Act also provides that State SNAP agencies are required to the maximum extent practicable to establish cooperative agreements with gaming entities within the State to identify SNAP recipients with substantial winnings. USDA is implementing section 4009 through final rulemaking.

State SNAP agencies are required, to the maximum extent practicable, to establish cooperative agreements with gaming entities within the State to identify SNAP recipients with substantial winnings. Gaming entities (both State public agency and private business gaming entities) that enter into the cooperative agreements will share information with the State SNAP agency on individuals within their gaming establishment who win amounts equal to or greater than the maximum allowable resource limit for elderly or disabled SNAP households, as defined in 7 CFR 273.8(b).

The provisions regarding students, felon disqualification and State eligibility verification systems in this final rule do not contain information collection requirements subject to approval by OMB under the Paperwork Reduction Act of 1995. State agencies will be required to make minimal, one-time changes to their application process in order to comply with the provisions of the felon disqualification attestation requirement. Since State agencies are already required to verify the immigration status of non-citizens applying for the program, the impact of this provision is negligible. Other minimal burdens imposed on State agencies by this final rule are usual and customary within the course of their normal business activities.

These changes are contingent upon OMB approval under the Paperwork Reduction Act of 1995. When the information collection requirements have been approved, the Department will publish a separate action in the **Federal Register** announcing OMB approval.

Requests for additional information or copies of this information collection should be directed to Mary Rose Conroy at 703–305–2803.

Title: Supplemental Nutrition Assistance Program: Student Eligibility, Convicted Felons, Lottery and Gambling, and State Verification

Provisions of the Agricultural Act of 2014.

Form Number: [N/A].

OMB Number: [0584–NEW].

Expiration Date: [Not Yet Determined.]

Type of Request: New collection.

Abstract: This final rule will implement section 4009 of the Agricultural Act of 2014 (Ending Supplemental Nutrition Assistance Program Benefits for Lottery or Gambling Winners), which provides that a household in which a member receives substantial lottery or gambling winnings shall lose eligibility for SNAP until the household meets normal income and resource standards. This rule defines lottery or gambling winnings equal to or greater than the resource limit for elderly or disabled households as defined in 7 CFR 273.8(b) as substantial. The provision also requires States to establish cooperative agreements, to the maximum extent practicable, with entities responsible for regulating or sponsoring gaming activities (gaming entities) in their State in order to identify individuals with substantial winnings.

This rule does not carry any recordkeeping burden. Reporting burden details are provided below.

Affected public: State agencies, State gambling entities, gaming entities.

Regulation Section: 7 CFR 272.17.

Respondent Type: State agency and gaming entities.

Estimated number of respondents: 250.

Total annual responses: First year 1,561,350; Ongoing 1,560,800.

Estimated annual burden hours: First year 561,920 hrs; Ongoing 193,920 hrs.

Estimated cost to respondents: First year $23,317,573; Ongoing $3,874,373.

Description of Costs and Assumptions

In the proposed rule's information collection burden, the Department assumed that all 53 State agencies would establish cooperative agreements despite large variation in gaming activities among States. The final rule's information collection estimates are based on 50 of the 53 State agencies implementing this provision to establish cooperative agreements. The Department assumes that at least three of the 53 State agencies do not have gambling or lottery in the State. These three State agencies would not be subject to this information collection because the rule does not require States to establish agreements with gaming entities outside of the State. These three State agencies are required to act when a household self-reports substantial lottery or gambling winnings, or the State learns of a household's winnings. Nevertheless, the Department does not anticipate that these States will experience an increased burden for action on this information, as it is estimated that States without gaming entities will have significantly fewer households that receive substantial winnings. Therefore, the estimates in this final information collection are based on 50 State agencies establishing cooperative agreements as required by section 4009.

First Year (One-Time Occurring Costs)

It is estimated that establishing the cooperative agreements between the State Agency and the gaming entities will take approximately 320 hours per response (80,000 hours total). This includes time for the State agency to reach out to gaming entities in the State, negotiate terms for sharing identifying information of winners, establish secure connections for sharing information, and complete all necessary reviews of agreements by legal counsel and State leadership. Our estimate assumes that 50 of the 53 State Agencies receiving SNAP funding will implement this rule despite large variations in gaming activities among States.

It is estimated that creating a computerized system to match information on winners from gaming entities with State SNAP participation lists will take approximately 4,160 hours per response (208,000 hours total). All States currently make use of other computerized data matching systems (*e.g.,* SAVE for immigration verification), so costs assume States will re-program existing systems.

Ongoing Yearly Costs

Once the computerized matching system is in place, the matches between the winner list and SNAP participation list should occur automatically and with negligible cost. There is no national database of how many people win large amounts of money in State lotteries or through other gaming activities. For this estimate, it is assumed that approximately 36,000 SNAP participants (average 720 per State Agency) nationally will be identified every year through the above matches, but, of these, approximately 23,000 (average 460 per State agency) will be found to have actual substantial lottery or gambling winnings (the others may be simply misidentified because of a similar name, inaccurate reporting, etc.). For each match, an eligibility worker will:

- Generate a notice to an identified match requesting more information (10 minutes).
- Review the returned information from the participant and engage in any additional verification (20 minutes).
- If the matched participant is *not* a winner—Update the case file (10 minutes).
- If the matched participant is a winner—Un-enroll the household and send notice of adverse action (30 minutes).

Lottery or gambling winners who lose eligibility for SNAP will need to be re-evaluated according to normal program rules if they again decide to apply for SNAP benefits. This process will vary by State depending on the categorical eligibility policy options in place. Eligibility workers will need to identify if a current SNAP applicant previously lost eligibility due to substantial winnings.

Due to the change in the final rule, lowering the threshold for substantial lottery and gambling winnings to the $3,500 resource limit for elderly or disabled households under 7 CFR 273.8(b), the Department anticipates that State agencies will need to reevaluate significantly more households than estimated in the proposed information collection. This will increase the estimated cost and burden for States.

Reg. section	Respondent type	Description of activity	Estimated number of respondents	Annual report or record filed	Total annual responses	Number of burden hours per response	Estimated total burden hours	Hourly wage rate *	Estimate cost to respondents
7 CFR 272.17	State SNAP Agency Managers.	** Establish cooperative agreements with State public agency and gaming entities.	50	5	250	320	80,000	$59.35	$4,748,000
7 CFR 272.17	State Public Agency Gaming Entity Managers.	** Establish cooperative agreements with State SNAP agency.	50	1	50	320	16,000	59.35	949,600

Reg. section	Respondent type	Description of activity	Estimated number of respondents	Annual report or record filed	Total annual responses	Number of burden hours per response	Estimated total burden hours	Hourly wage rate *	Estimate cost to respondents
7 CFR 272.17	State SNAP IT Staff	** Create a data matching system with State public agency and gaming entities.	50	1	50	4,160	208,000	53.74	11,177,920
272.17 and 273.11(r)	State SNAP Agency Eligibility Worker.	Eligibility worker follow-up—misidentified winners.	50	260	13,000	0.667	8,671	21.45	185,993
7 CFR 272.17 and 7 CFR 273.11(r).	State SNAP Agency Eligibility Worker.	Eligibility worker follow-up—true winners.	50	460	23,000	1	23,000	21.45	493,350
7 CFR 272.17 and 7 CFR 273.11(r).	State SNAP Agency Eligibility Worker.	Eligibility worker work new applications (churn).	50	411	20,550	1	20,550	21.45	440,798
7 CFR 272.17	State Public Agency Gaming Entity Staff Member.	Input data into data matching system for use by State SNAP agency.	50	6,000	300,000	0.08	24,000	19.56	469,440
7 CFR 272.17	State SNAP IT Staff	Maintain a data matching system with State public agency and gaming entities.	50	1	50	320	16,000	53.74	859,840
State Agency Subtotal Reporting			50						19,324,940
7 CFR 272.17	Gaming Entity Managers.	** Establish cooperative agreements with State SNAP agency.	200	1	200	320	64,000	40.12	2,567,680
7 CFR 272.17	Gaming Entity Staff Member.	Input data into data matching system for use by State SNAP agency.	200	6,000	1,200,000	0.08	96,000	13.57	1,302,720
Business Subtotal Reporting			200	101	16,059		52,152		3,870,400
States and Business Reporting Grand Total Burden Estimates			250						23,195,340

* Based on the Bureau of Labor Statistics May 2017 Occupational and Wage Statistics. The salaries of State SNAP agency managers and public gaming entity managers are considered to be ''General and Operations Managers (11–1021).'' The salaries of gaming entity managers are considered to be ''Gaming Managers (11–9071).'' The salaries of State SNAP IT Staff are considered to be ''Software Developers, Systems Software (15–1133).'' The salaries of the eligibility workers are considered to be ''Eligibility Interviewers, Government Programs (43–4061).'' The salaries of public gaming entity staff member are considered to be ''Information and Record Clerks, All Other (43–4199).'' The salaries of gaming entity staff member are considered to be ''Gaming Cage Workers (43–3041).'' (*http://www.bls.gov/oes/home.htm*).

** These are only first year costs and are next expected to re-occur annually.

Summary of burden	Est. number of respondents	Number of responses per respondent	Total annual responses	Est. total hours per response	Est. total burden	Cost to respondents
Reporting	250	13,224	1,557,150		561,920	$23,195,340
Recordkeeping						
Total	250		1,557,150		561,920	23,195,340

E-Government Act Compliance

The Department is committed to complying with the E-Government Act, to promote the use of the internet and other information technologies to provide increased opportunities for citizen access to Government information and services, and for other purposes.

List of Subjects

7 CFR Part 271

Food stamps, Grant programs—social programs, Reporting and recordkeeping requirements.

7 CFR Part 272

Alaska, Civil rights, Claims, Food stamps, Grant programs—social programs, Reporting and recordkeeping requirements, Unemployment compensation, Wages.

7 CFR Part 273

Administrative practice and procedure, Aliens, Claims, Employment, Food stamps, Fraud, Government employees, Grant programs—social programs, Income taxes, Reporting and recordkeeping requirements, Students, Supplemental Security Income, Wages.

For the reasons set forth in the preamble, 7 CFR parts 271, 272 and 273 are amended as follows:

■ 1. The authority citation for Parts 271, 272 and 273 continues to read as follows:

Authority: 7 U.S.C. 2011–2036.

PART 271—GENERAL INFORMATION AND DEFINITIONS

■ 2. In § 271.2:

■ a. In the definition of ''*Alien Status Verification Index (ASVI)*'', remove the words ''Immigration and Naturalization Service'' and add, in their place, the words ''United States Citizenship and Immigration Services (USCIS)''.

■ b. Remove the definition of ''*Immigration and Naturalization Service (INS).*''

■ c. Add a definition of ''*United States Citizenship and Immigration Services (USCIS)*'' in alphabetical order.

The addition to read as follows:

§ 271.2 Definitions.

* * * * *

United States Citizenship and Immigration Services (USCIS) means the U.S. Citizenship and Immigration Services, U.S. Department of Homeland Security.

* * * * *

PART 272—REQUIREMENTS FOR PARTICIPATING STATE AGENCIES

■ 3. Add § 272.2(d)(1)(xviii) to read as follows:

§ 272.2 Plan of operation.

* * * * *

(d) * * *

(1) * * *

(xviii) A list indicating the names of gaming entities with which the State agency has entered into cooperative agreements and the frequency of data matches with such entities.

* * * * *

■ 4. In § 272.8(a)(1), revise the first sentence to read as follows:

§ 272.8 State Income and Eligibility Verification System.

(a) * * *

(1) State agencies shall maintain and use an income and eligibility verification system (IEVS), as specified in this section. * * *

* * * * *

■ 5. Amend § 272.11 by revising paragraph (a) and in paragraphs (b) and (d), remove the word ''INS'' and add in its place the word ''USCIS''.

§ 272.11 Systematic Alien Verification for Entitlements (SAVE) Program.

(a) *General.* A State agency shall use an immigration status verification system established under section 1137 of the Social Security Act (42 U.S.C. 1320b–7) to verify the eligible status of all aliens applying for SNAP benefits. USCIS maintains the Systematic Alien Verification for Entitlements (SAVE) Program to conduct such verification.

* * * * *

■ 6. Add § 272.17, to read as follows:

§ 272.17 Substantial Lottery or Gambling Winnings.

(a) *General.* Each State agency, to the maximum extent practicable, shall establish cooperative agreements with gaming entities within their State to identify members of certified households who have won substantial lottery or gambling winnings as defined in § 273.11(r).

(b) *Cooperative Agreements.* State agencies, to the maximum extent practicable, shall enter into cooperative agreements with the gaming entities responsible for the regulation or sponsorship of gaming in the State. Cooperative agreements should specify the type of information to be shared by the gaming entity, the procedures used to share information, the frequency of sharing information, and the job titles of individuals who will have access to the data. Cooperative agreements shall also include safeguards to prevent release or disclosure of personally identifiable information of SNAP recipients who are the subject of data matches in accordance with 272.1(c).

(c) *Use of information on winnings.* States shall provide a system for:

(1) Comparing information obtained from gaming entities about individuals with substantial winnings with databases of currently certified households within the State;

(2) The reporting of instances where there is a match;

(3) The verification of matches to determine their accuracy in accordance with § 273.2(f);

(4) If during a household's certification period, as defined in § 273.11(r), prior to any action to terminate the household's benefits, the State agency shall provide the household notice in accordance with the provisions on notices of adverse action appearing in § 273.13. If the information received is unclear, the State agency shall follow procedures at § 273.12(c)(3). For households that are found to have received substantial winnings at the time of the household's recertification, the State agency shall notify such households, in accordance with the provisions on notices of denial appearing in § 273.10(g)(2); and

(5) The establishment and collection of claims as appropriate.

(d) *Frequency of data matches.* The State agency shall perform data matches as frequently as is feasibly possible to identify SNAP recipients with substantial winnings, as defined in § 273.11(r); however, at a minimum the State agency shall conduct data matches when a household files a periodic report and at the time of the household's recertification.

(e) *State Plan of Operation.* The State agency shall include as an attachment to the annual State Plan of Operation, as required in accordance with § 272.2, the names of gaming entities with which the State agency has entered into cooperative agreements, the frequency of data matches with such entities.

PART 273—CERTIFICATION OF ELIGIBLE HOUSEHOLDS

■ 7. In Part 273 remove the word ''INS'' each place it appears and add, in its place, ''USCIS''.

■ 8. Add § 273.1(b)(7)(xii) to read as follows:

§ 273.1 Household concept.

* * * * *

(b) * * *

(7) * * *

(xii) Individuals convicted of certain crimes and who are out of compliance with the terms of their sentence and ineligible under § 273.11(s).

* * * * *

■ 9. In § 273.2:

■ a. Amend paragraph (b)(2) by revising the first sentence;

■ b. Amend paragraph (f)(1)(ii)(A) by revising the first sentence and adding a new second sentence;

■ c. Amend paragraph (f)(5)(i) by adding four sentences at the end of the paragraph;

■ d. Amend paragraph (f)(9) by revising the paragraph heading and paragraphs (f)(9)(i) and (ii);

■ e. Amend paragraph (f)(10), by revising the introductory text and adding paragraph (f)(10)(vi);

■ f. Revise (j)(2)(vii)(D);

■ g. Add new paragraph (o).

The revisions and additions to read as follows:

§ 273.2 Office operations and application processing.

* * * * *

(b) * * *

(2) * * * In using IEVS in accordance with paragraph (f)(9) of this section, a State agency must notify all applicants for SNAP benefits at the time of application and at each recertification through a written statement on, or provided with, the application form that information available through IEVS will be requested, used, and may be verified through collateral contact when discrepancies are found by the State agency, and that such information may affect the household's eligibility and level of benefits. * * *

* * * * *

(f) * * *

(1) * * *

(ii) * * *

(A) The State agency shall verify the eligible status of all aliens applying for SNAP benefits by using an immigration status verification system established under section 1137 of the Social Security Act (42 U.S.C. 1320b–7). FNS may require State agencies to provide written confirmation from USCIS that the system used by the State is an immigration status verification system established under section 1137 of the Social Security Act. * * *

* * * * *

(5) * * *

(i) * * * If a SNAP applicant's attestation regarding disqualified felon status described in § 273.2(o) is questionable, the State agency shall verify the attestation. Each element of a questionable attestation—that the individual has been convicted of a crime listed at § 273.11(s), and that the individual is not in compliance with the

terms of their sentence—shall be verified by the State agency. The State agency shall determine whether an attestation is questionable based on the standards established under § 273.2(f)(2)(i). In conducting verifications of questionable attestations under this paragraph, the State agency shall establish reasonable, consistent standards, evaluate each case separately, and document the case file accordingly.

* * * * *

(9) *Mandatory use of IEVS.* (i) The State agency must obtain information through IEVS in accordance with procedures specified in § 272.8 of this chapter and use it to verify the eligibility and benefit levels of applicants and participating households.

(ii) The State agency must access data through the IEVS in accordance with the disclosure safeguards and data exchange agreements required by part 272.

* * * * *

(10) *Mandatory use of SAVE.* Households are required to submit documentation for each alien applying for SNAP benefits in order for the State agency to verify their immigration statuses. State agencies shall verify the validity of such documents through an immigration status verification system established under section 1137 of the Social Security Act (42 U.S.C. 1320b–7) in accordance with § 272.11 of this chapter. USCIS maintains the SAVE system to conduct this verification. When using SAVE to verify immigration status, State agencies shall use the following procedures: * * *

* * * * *

(vi) State agencies may use information contained in SAVE search results to confirm whether an alien has a sponsor who has signed a legally binding affidavit of support when evaluating the alien's application for SNAP benefits in accordance with the deeming requirements described in § 273.4(c)(2).

* * * * *

(j) * * *

(2) * * *

(vii) * * *

(D) Any member of that household is ineligible under § 273.11(m) by virtue of a conviction for a drug-related felony, under § 273.11(n) for being a fleeing felon or a probation or parole violator, or under § 273.11(s) for having a conviction of certain crimes and not being in compliance with the sentence.

* * * * *

(o) Each State agency shall require the individual applying for SNAP benefits to attest to whether the individual or any other member of the household has been convicted of a crime as an adult as described in § 273.11(s) and whether the convicted member is complying with the terms of the sentence.

(1) The State agency shall update its application process, including certification and recertification procedures, to include the attestation requirement. Attestations may be done in writing, verbally, or both, provided that the attestation requirement shall be explained to the applicant household during the interview and the attestation is legally binding in the law of the State. Whatever procedure a State chooses to implement must be reasonable and consistent for all households applying for SNAP benefits. However, no individual shall be required to come to the SNAP office solely for an attestation.

(2) The State agency shall document this attestation in the case file.

(3) The State agency shall establish standards for verification of only those attestations that are questionable, as described in § 273.2(f)(2). When verifying an attestation, the State agency must verify any conviction for a crime described in § 273.11(s) and that the individual is not in compliance with the terms of the sentence.

(4) Application processing shall not be delayed beyond required processing timeframes solely because the State agency has not obtained verification of an attestation. The State agency shall continue to process the application while awaiting verification. If the State agency is required to act on the case without being able to verify an attestation in order to meet the time standards in § 273.2(g) or § 273.2(i)(3), the State agency shall process the application without consideration of the individual's felony and compliance status.

■ 10. Revise § 273.5(b)(11)(ii), to read as follows:

§ 273.5 Students.

* * * * *

(b) * * *

(11) * * *

(ii) An employment and training program under § 273.7, subject to the condition that the course or program of study, as determined by the State agency:

(A) Is part of a program of career and technical education as defined in section 3 of the Carl D. Perkins Career and Technical Education Act of 2006 (20 U.S.C. 2302) designed to be completed in not more than 4 years at an institution of higher education as defined in section 102 of the Higher Education Act of 1965 (20 U.S.C. 2296); or

(B) is limited to remedial courses, basic adult education, literacy, or English as a second language.

* * * * *

■ 11. Revise § 273.7(e)(1)(vi), to read as follows:

§ 273.7 Work provisions.

* * * * *

(e) * * *

(1) * * *

(vi) Educational programs or activities to improve basic skills or otherwise improve employability including educational programs determined by the State agency to expand the job search abilities or employability of those subject to the program.

(A) Allowable educational programs or activities may include, but are not limited to, courses or programs of study that are part of a program of career and technical education (as defined in section 3 of the Carl D. Perkins Act of 2006), high school or equivalent educational programs, remedial education programs to achieve a basic literacy level, and instructional programs in English as a second language.

(B) Only educational components that directly enhance the employability of the participants are allowable. A direct link between the education and job-readiness must be established for a component to be approved.

■ 12. In § 273.11:

■ a. Amend paragraph (c)(1) introductory text by revising the sentence after the paragraph heading; and

■ b. Add paragraphs (r) and (s).

The revisions and additions to read as follows:

§ 273.11 Action on households with special circumstances.

* * * * *

(c) * * *

(1) * * * The eligibility and benefit level of any remaining household members of a household containing individuals determined ineligible because of a disqualification for an intentional Program violation, a felony drug conviction, their fleeing felon status, noncompliance with a work requirement of § 273.7, imposition of a sanction while they were participating in a household disqualified because of failure to comply with workfare requirements, or certain convicted felons as provided at § 273.11(s) shall be determined as follows: * * *

* * * * *

(r) *Disqualification for Substantial Lottery or Gambling Winnings.* Any household certified to receive benefits

shall lose eligibility for benefits immediately upon receipt by any individual in the household of substantial lottery or gambling winnings, as defined in paragraph (r)(2) of this section. The household shall report the receipt of substantial winnings to the State agency in accordance with the reporting requirements contained in § 273.12(a)(5)(iii)(G)(3) and within the time-frames described in § 273.12(a)(2). The State agency shall also take action to disqualify any household identified as including a member with substantial winnings in accordance with § 272.17.

(1) *Regaining Eligibility.* Such households shall remain ineligible until they meet the allowable resources and income eligibility requirements described in §§ 273.8 and 273.9, respectively.

(2) *Substantial Winnings*—(i) *In General.* Substantial lottery or gambling winnings are defined as a cash prize equal to or greater than the maximum allowable financial resource limit for elderly or disabled households as defined in § 273.8(b) won in a single game before taxes or other withholdings. For the purposes of this provision, the resource limit defined in § 273.8(b) applies to all households, including non-elderly/disabled households, with substantial lottery and gambling winnings. If multiple individuals shared in the purchase of a ticket, hand, or similar bet, then only the portion of the winnings allocated to the member of the SNAP household would be counted in the eligibility determination.

(ii) *Adjustment.* The value of substantial winnings shall be adjusted annually in accordance with § 273.8(b)(1) and (2).

(s) *Disqualification for certain convicted felons.* An individual shall not be eligible for SNAP benefits if:

(1) The individual is convicted as an adult of:

(i) Aggravated sexual abuse under section 2241 of title 18, United States Code;

(ii) Murder under section 1111 of title 18, United States Code;

(iii) An offense under chapter 110 of title 18, United States Code;

(iv) A Federal or State offense involving sexual assault, as defined in section 40002(a) of the Violence Against Women Act of 1994 (42 U.S.C. 13925(a)); or

(v) An offense under State law determined by the Attorney General to be substantially similar to an offense described in clause (i), (ii), or (iii); and

(2) The individual is not in compliance with the terms of the sentence of the individual or the restrictions under § 273.11(n).

(3) The disqualification contained in this paragraph (s) shall not apply to a conviction if the conviction is for conduct occurring on or before February 7, 2014.

■ 13. In § 273.12, add paragraph (a)(1)(viii) and revise paragraphs (a)(4)(iv), (a)(5)(iii)(G) and (a)(5)(vi)(B).

The addition and revisions read as follows:

§ 273.12 Reporting requirements.

(a) * * *

(1) * * *

(viii) Whenever a member of the household wins substantial lottery or gambling winnings in accordance with § 273.11(r).

(4) * * *

(iv) *Content of the quarterly report form.* The State agency may include all of the items subject to reporting under paragraph (a)(1) of this section in the quarterly report, except changes reportable under paragraphs (a)(1)(vii) and (a)(1)(viii) of this section, or may limit the report to specific items while requiring that households report other items through the use of the change report form.

(5) * * *

(iii) * * *

(G) The periodic report form shall be the sole reporting requirement for any information that is required to be reported on the form, except that a household required to report less frequently than quarterly shall report:

(1) When the household monthly gross income exceeds the monthly gross income limit for its household size in accordance with paragraph (a)(5)(v) of this section;

(2) Whenever able-bodied adults subject to the time limit of § 273.24 have their work hours fall below 20 hours per week, averaged monthly; and

(3) Whenever a member of the household wins substantial lottery or gambling winnings in accordance with § 273.11(r).

* * * * *

(vi) * * *

(B) The State agency must not act on changes that would result in a decrease in the household's benefits unless one of the following occurs:

(*1*) The household has voluntarily requested that its case be closed in accordance with § 273.13(b)(12).

(*2*) The State agency has information about the household's circumstances considered verified upon receipt.

(*3*) A household member has been identified as a fleeing felon or probation or parole violator in accordance with § 273.11(n).

(*4*) There has been a change in the household's PA grant, or GA grant in project areas where GA and food stamp cases are jointly processed in accordance with § 273.2(j)(2).

(*5*) The State agency has verified information that a member of a SNAP household has won substantial lottery or gambling winnings in accordance with § 273.11(r).

* * * * *

Dated: April 8, 2019.

Brandon Lipps,

Administrator, Food and Nutrition Service.

[FR Doc. 2019–07194 Filed 4–12–19; 8:45 am]

BILLING CODE 3410–30–P

FEDERAL DEPOSIT INSURANCE CORPORATION

12 CFR Parts 327 and 337

RIN 3064–AE89

Limited Exception for a Capped Amount of Reciprocal Deposits From Treatment as Brokered Deposits; Technical Amendment

AGENCY: Federal Deposit Insurance Corporation (FDIC).

ACTION: Final rule; technical amendment to preamble.

SUMMARY: The FDIC is making technical amendments to the preamble of a final rule published in the **Federal Register** on February 4, 2019. The final rule relates to a limited exception for a capped amount of reciprocal deposits from treatment as brokered deposits. As published, several industry participants raised concerns about the meaning of a sentence in the preamble of the final rule. To avoid potential confusion, the FDIC is amending the language, as explained below.

DATES: The technical amendments are effective April 15, 2019.

FOR FURTHER INFORMATION CONTACT: Legal Division: Vivek V. Khare, Counsel, (202) 898–6847, *vkhare@fdic.gov*; Thomas Hearn, Counsel, (202) 898–6967, *thohearn@fdic.gov*. Division of Risk Management Supervision: Thomas F. Lyons, Chief, Policy and Program Development, (202) 898–6850, *tlyons@fdic.gov*.

SUPPLEMENTARY INFORMATION:

Technical Amendments

On December 18, 2018, the FDIC adopted a final rule relating to the treatment of reciprocal deposits. The final rule was published in the **Federal Register** on February 4, 2019 (84 FR 1346). Several industry participants

have raised concerns about whether a sentence in the preamble of the final rule could be read as changing existing interpretations related to accepting or receiving deposits. The sentence is italicized below: [1]

The FDIC recognizes that the statute only limits the amount of reciprocal deposits an institution may ''receive'' in order to be considered an agent institution. *Thus, an institution that is less than well capitalized or not well rated will still qualify as an agent institution if it holds a level of reciprocal deposits above the special cap, as long as (1) such deposits were received before the institution became less than well capitalized or not well rated, (2) such deposits are time deposits,*[28] *and (3) the institution satisfies all other qualifications necessary to be an agent institution.* For example, an institution that is well capitalized but no longer well rated could continue to be an agent institution if it holds reciprocal time deposits that it received prior to its rating downgrade until those time deposits mature or roll off, but would no longer be an agent institution if it renewed or rolled over such deposits and doing so caused the total amount of reciprocal deposits to exceed the special cap. In this case, once the institution receives reciprocal deposits in excess of its special cap, it is no longer an agent institution. If an institution is not an agent institution, all of its reciprocal deposits should be reported as brokered deposits.

* * * * *

[28] Transactional reciprocal deposits are viewed as being received daily.

The FDIC does not intend this preamble language to change existing interpretations related to accepting or receiving deposits. Therefore, in an effort to avoid confusion, the FDIC is deleting the sentence in question along with its corresponding footnote and, amending the sentence that immediately follows. The revised paragraph reads as follows:

The FDIC recognizes that the statute only limits the amount of reciprocal deposits an institution may ''receive'' in order to be considered an agent institution. To take a simple example, an institution that is well capitalized but no longer well rated could continue to be an agent institution if it holds reciprocal certificate of deposits that it received prior to its rating downgrade until those certificate of deposits mature or roll off, but would no longer be an agent institution if it renewed or rolled over such deposits and doing so caused the total amount of reciprocal deposits to exceed the special cap. In this case, once the institution receives reciprocal deposits in excess of its special cap, it is no longer an agent institution. If an institution is not an agent institution, all of its reciprocal deposits should be reported as brokered deposits.

As discussed above, these changes to the preamble text are technical, and do not change the rule text. Accordingly, the FDIC finds that notice and comment procedures are unnecessary. Further, because the changes are technical, delaying the effective date would serve no purpose. Therefore, these changes will be effective upon publication.

For convenient reference, the FDIC is posting the revised preamble and final rule in their entirety on its website.

* * * * *

Dated at Washington, DC, on March 8, 2019.

By Order of the Board of Directors.

Federal Deposit Insurance Corporation.

Valerie Best,

Assistant Executive Secretary.

[FR Doc. 2019–07048 Filed 4–12–19; 8:45 am]

BILLING CODE 6714–01–P

[1] 84 FR 1346, 1349 (February 4, 2019).

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

21 CFR Part 868

[Docket No. FDA–2019–N–0647]

Medical Devices; Anesthesiology Devices; Classification of the Ventilatory Electrical Impedance Tomograph

AGENCY: Food and Drug Administration, HHS.

ACTION: Final order.

SUMMARY: The Food and Drug Administration (FDA or we) is classifying the ventilatory electrical impedance tomograph into class II (special controls). The special controls that apply to the device type are identified in this order and will be part of the codified language for the ventilatory electrical impedance tomograph's classification. We are taking this action because we have determined that classifying the device into class II (special controls) will provide a reasonable assurance of safety and effectiveness of the device. We believe this action will also enhance patients' access to beneficial innovative devices, in part by reducing regulatory burdens.

DATES: This order is effective April 15, 2019. The classification was applicable on December 20, 2018.

FOR FURTHER INFORMATION CONTACT: Deepika Arora Lakhani, Center for Devices and Radiological Health, Food and Drug Administration, 10903 New Hampshire Ave., Bldg. 66, Rm. 2560, Silver Spring, MD 20993–0002, 301–796–4042, *Deepika.Lakhani@fda.hhs.gov.*

SUPPLEMENTARY INFORMATION:

I. Background

Upon request, FDA has classified the ventilatory electrical impedance tomograph as class II (special controls), which we have determined will provide a reasonable assurance of safety and effectiveness. In addition, we believe this action will enhance patients' access to beneficial innovation, in part by reducing regulatory burdens by placing the device into a lower device class than the automatic class III assignment.

The automatic assignment of class III occurs by operation of law and without any action by FDA, regardless of the level of risk posed by the new device. Any device that was not in commercial distribution before May 28, 1976, is automatically classified as, and remains within, class III and requires premarket approval unless and until FDA takes an action to classify or reclassify the device (see 21 U.S.C. 360c(f)(1)). We refer to these devices as ''postamendments devices'' because they were not in commercial distribution prior to the date of enactment of the Medical Device Amendments of 1976, which amended the Federal Food, Drug, and Cosmetic Act (FD&C Act).

FDA may take a variety of actions in appropriate circumstances to classify or reclassify a device into class I or II. We may issue an order finding a new device to be substantially equivalent under section 513(i) of the FD&C Act (21 U.S.C. 360c(i)) to a predicate device that does not require premarket approval. We determine whether a new device is substantially equivalent to a predicate by means of the procedures for premarket notification under section 510(k) of the FD&C Act and part 807 (21 U.S.C. 360(k) and 21 CFR part 807, respectively).

FDA may also classify a device through ''De Novo'' classification, a common name for the process authorized under section 513(f)(2) of the FD&C Act. Section 207 of the Food and Drug Administration Modernization Act of 1997 (Pub. L. 105–115) established the first procedure for De Novo classification. Section 607 of the Food and Drug Administration Safety and Innovation Act (Pub. L. 112–144) modified the De Novo application process by adding a second procedure. A device sponsor may utilize either procedure for De Novo classification.

Under the first procedure, the person submits a 510(k) for a device that has not previously been classified. After receiving an order from FDA classifying the device into class III under section 513(f)(1) of the FD&C Act, the person

then requests a classification under section 513(f)(2).

Under the second procedure, rather than first submitting a 510(k) and then a request for classification, if the person determines that there is no legally marketed device upon which to base a determination of substantial equivalence, that person requests a classification under section 513(f)(2) of the FD&C Act.

Under either procedure for De Novo classification, FDA is required to classify the device by written order within 120 days. The classification will be according to the criteria under section 513(a)(1) of the FD&C Act. Although the device was automatically placed within class III, the De Novo classification is considered to be the initial classification of the device.

We believe this De Novo classification will enhance patients' access to beneficial innovation, in part by reducing regulatory burdens. When FDA classifies a device into class I or II via the De Novo process, the device can serve as a predicate for future devices of that type, including for 510(k)s (see 21 U.S.C. 360c(f)(2)(B)(i)). As a result, other device sponsors do not have to submit a De Novo request or premarket approval application in order to market a substantially equivalent device (see 21 U.S.C. 360c(i), defining ''substantial equivalence''). Instead, sponsors can use the 510(k) process, when necessary, to market their device.

II. De Novo Classification

On September 29, 2017, TIMPEL Inc. submitted a request for De Novo classification of the ENLIGHT 1810. FDA reviewed the request in order to classify the device under the criteria for classification set forth in section 513(a)(1) of the FD&C Act.

We classify devices into class II if general controls by themselves are insufficient to provide reasonable assurance of safety and effectiveness, but there is sufficient information to establish special controls that, in combination with the general controls, provide reasonable assurance of the safety and effectiveness of the device for its intended use (see 21 U.S.C. 360c(a)(1)(B)). After review of the information submitted in the request, we determined that the device can be classified into class II with the establishment of special controls. FDA has determined that these special controls, in addition to the general controls, will provide reasonable assurance of the safety and effectiveness of the device.

Therefore, on December 20, 2018, FDA issued an order to the requester classifying the device into class II. FDA is codifying the classification of the device by adding 21 CFR 868.1505. We have named the generic type of device ventilatory electrical impedance tomograph, and it is identified as a prescription non-invasive, non-radiological ventilatory device that provides an assessment of local impedance variation within a cross-section of a patient's thorax.

FDA has identified the following risks to health associated specifically with this type of device and the measures required to mitigate these risks in table 1.

TABLE 1—VENTILATORY ELECTRICAL IMPEDANCE TOMOGRAPH RISKS AND MITIGATION MEASURES

Identified risks	Mitigation measure
Adverse tissue reaction	Biocompatibility evaluation.
Electromagnetic interference with other devices	Electromagnetic compatibility testing.
Infection	Reprocessing validation and Labeling.
Inaccurate images due to either device hardware or software failure/malfunction.	Software verification, validation, and hazard analysis; Non-clinical performance testing; and Labeling.
Electrical shock injury or thermal injury	Electrical, thermal, and mechanical safety testing; Software verification, validation, and hazard analysis; Non-clinical performance testing; and Labeling.

FDA has determined that special controls, in combination with the general controls, address these risks to health and provide reasonable assurance of safety and effectiveness. For a device to fall within this classification, and thus avoid automatic classification in class III, it would have to comply with the special controls named in this final order. The necessary special controls appear in the regulation codified by this order. This device is subject to premarket notification requirements under section 510(k) of the FD&C Act.

At the time of classification, ventilatory electrical impedance tomographs are for prescription use only. Prescription devices are exempt from the requirement for adequate directions for use for the layperson under section 502(f)(1) of the FD&C Act (21 U.S.C. 352(f)(1)) and 21 CFR 801.5, as long as the conditions of 21 CFR 801.109 are met (referring to 21 U.S.C. 352(f)(1)).

III. Analysis of Environmental Impact

We have determined under 21 CFR 25.34(b) that this action is of a type that does not individually or cumulatively have a significant effect on the human environment. Therefore, neither an environmental assessment nor an environmental impact statement is required.

IV. Paperwork Reduction Act of 1995

This final order establishes special controls that refer to previously approved collections of information found in other FDA regulations and guidance. These collections of information are subject to review by the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520). The collections of information in the guidance document ''De Novo Classification Process (Evaluation of Automatic Class III Designation)'' have been approved under OMB control number 0910–0844; the collections of information in 21 CFR part 820, regarding quality system regulation, have been approved under OMB control number 0910–0073; the collections of information in 21 CFR part 814, subparts A through E, regarding premarket approval, have been approved under OMB control number 0910–0231; the collections of information in part 807, subpart E, regarding premarket notification submissions, have been approved under OMB control number 0910–0120; and the collections of information in 21 CFR part 801, regarding labeling, have been approved under OMB control number 0910–0485.

List of Subjects in 21 CFR Part 868

Medical devices.

Therefore, under the Federal Food, Drug, and Cosmetic Act and under authority delegated to the Commissioner of Food and Drugs, 21 CFR part 868 is amended as follows:

PART 868—ANESTHESIOLOGY DEVICES

■ 1. The authority citation for part 868 continues to read as follows:

Authority: 21 U.S.C. 351, 360, 360c, 360e, 360j, 360*l*, 371.

■ 2. Add § 868.1505 to subpart B to read as follows:

§ 868.1505 Ventilatory electrical impedance tomograph.

(a) *Identification.* A ventilatory electrical impedance tomograph is a prescription non-invasive, non-radiological ventilatory device that provides an assessment of local impedance variation within a cross-section of a patient's thorax.

(b) *Classification.* Class II (special controls). The special controls for this device are:

(1) The patient-contacting components of the device must be demonstrated to be biocompatible.

(2) Non-clinical performance testing must demonstrate that the device performs as intended under anticipated conditions of use, including the following:

(i) Characterization of device parameters, including signal-to-noise ratio, voltage accuracy, drift, reciprocity accuracy, amplitude response, position error, and ringing;

(ii) Real time evaluation of local impedance variation;

(iii) Plethysmogram accuracy testing; and

(iv) Use life testing of reusable components.

(3) Performance data must validate reprocessing instructions for any reusable components of the device.

(4) Performance data must demonstrate the electrical, thermal, and mechanical safety and the electromagnetic compatibility of the device.

(5) Software verification, validation, and hazard analysis must be performed.

(6) Labeling must include the following:

(i) Guidance for interpretation of the images generated;

(ii) A warning that the device should be removed before use of a defibrillator, or defibrillator interaction information based on defibrillator performance testing with the device;

(iii) A use life for any reusable components; and

(iv) Instructions for reprocessing any reusable components.

Dated: April 10, 2019.

Lowell J. Schiller,

Principal Associate Commissioner for Policy.

[FR Doc. 2019–07463 Filed 4–12–19; 8:45 am]

BILLING CODE 4164–01–P

DEPARTMENT OF THE INTERIOR

Bureau of Indian Affairs

[192A2100DD/AAKC001030/A0A501010.999900253G]

25 CFR Parts 140, 141, 211, 213, 225, 226, 227, 243, and 249

RIN 1076–AF40

Civil Penalties Inflation Adjustments; Annual Adjustments

AGENCY: Bureau of Indian Affairs, Interior.

ACTION: Final rule.

SUMMARY: This rule provides for annual adjustments to the level of civil monetary penalties contained in Bureau of Indian Affairs (Bureau) regulations to account for inflation under the Federal Civil Penalties Inflation Adjustment Act Improvements Act of 2015 and Office of Management and Budget (OMB) guidance.

DATES: This rule is effective on April 15, 2019.

FOR FURTHER INFORMATION CONTACT: Elizabeth Appel, Director, Office of Regulatory Affairs and Collaborative Action, Office of the Assistant Secretary—Indian Affairs; telephone (202) 273–4680, *elizabeth.appel@bia.gov*.

SUPPLEMENTARY INFORMATION:

I. Background
II. Calculation of Annual Adjustments
III. Procedural Requirements
A. Regulatory Planning and Review (E.O. 12866 and 13563)
B. Reducing Regulation and Controlling Regulatory Costs (E.O. 13771)
C. Regulatory Flexibility Act
D. Small Business Regulatory Enforcement Fairness Act
E. Unfunded Mandates Reform Act
F. Takings (E.O. 12630)
G. Federalism (E.O. 13132)
H. Civil Justice Reform (E.O. 12988)
I. Consultation With Indian Tribes (E.O. 13175)
J. Paperwork Reduction Act
K. National Environmental Policy Act
L. Effects on the Energy Supply (E.O. 13211)
M. Clarity of This Regulation
N. Administrative Procedure Act

I. Background

On November 2, 2015, the President signed into law the Federal Civil Penalties Inflation Adjustment Act Improvements Act of 2015 (Sec. 701 of Pub. L. 114–74) (''the Act''). The Act requires Federal agencies to adjust the level of civil monetary penalties with an initial ''catch-up'' adjustment through rulemaking and then make subsequent annual adjustments for inflation. The purpose of these adjustments is to maintain the deterrent effect of civil penalties and to further the policy goals of the underlying statutes.

The Office of Management and Budget (OMB) issued guidance for Federal agencies on calculating the catch-up adjustment. *See* February 24, 2016, Memorandum for the Heads of Executive Departments and Agencies, from Shaun Donovan, Director, Office of Management and Budget, re: *Implementation of the Federal Civil Penalties Inflation Adjustment Act Improvements Act of 2015* (M–16–06). Under the guidance, the Department identified applicable civil monetary penalties and calculated the catch-up adjustment. A civil monetary penalty is any assessment with a dollar amount that is levied for a violation of a Federal civil statute or regulation, and is assessed or enforceable through a civil action in Federal court or an administrative proceeding. A civil monetary penalty does not include a penalty levied for violation of a criminal statute, or fees for services, licenses, permits, or other regulatory review. The calculated catch-up adjustment is based on the percent change between the Consumer Price Index for all Urban Consumers (CPI0–U) for the month of October in the year of the previous adjustment (or in the year of establishment, if no adjustment has been made) and the October 2015 CPI–U.

The Bureau issued an interim final rule providing for calculated catch-up adjustments on June 30, 2016 (81 FR 42478) with an effective date of August 1, 2016, and requesting comments post-promulgation. The Bureau issued a final rule affirming the catch-up adjustments set forth in the interim final rule on December 2, 2016 (81 FR 86953). The Bureau then issued a final rule making the next scheduled annual inflation adjustment for 2017 on January 23, 2017 (82 FR 7649) and for 2018 on February 6, 2018 (83 FR 5192).

II. Calculation of 2019 Annual Adjustments

OMB recently issued guidance to assist Federal agencies in implementing the annual adjustments required by the Act which agencies must complete by January 15, 2019. *See* December 14, 2018, Memorandum for the Heads of Executive Departments and Agencies, from Mick Mulvaney, Director, Office of Management and Budget, re: *Implementation of the Penalty Inflation Adjustments for 2019, Pursuant to the Federal Civil Penalties Inflation Adjustment Act Improvements Act of*

2015 (M–19–04). The guidance states that the cost-of-living adjustment multiplier for 2019, based on the Consumer Price Index (CPI–U) for the month of October 2018, not seasonally adjusted, is 1.02522. (The annual inflation adjustments are based on the percent change between the October CPI–U preceding the date of the adjustment, and the prior year's October CPI–U. For 2019, OMB explains, October 2018 CPI–U (252.885) / October 2017 CPI–U (246.663) = 1.02522.) The guidance instructs agencies to complete the 2019 annual adjustment by multiplying each applicable penalty by the multiplier, 1.02522, and rounding to the nearest dollar. Further, agencies should apply the multiplier to the most recent penalty amount that includes the initial catch-up adjustment required by the Act.

The annual adjustment applies to all civil monetary penalties with a dollar amount that are subject to the Act. This final rule adjusts the following civil monetary penalties contained in the Bureau's regulations for 2019 by multiplying 1.02522 (*i.e.,* the cost-of-living adjustment multiplier for 2019) by each penalty amount as updated by the adjustment made in 2018:

CFR citation	Description of penalty	Current penalty including catchup adjustment	Annual adjustment (multiplier)	Adjusted penalty for 2019
25 CFR 140.3	Penalty for trading in Indian country without a license	$1,296	1.02522	$1,329
25 CFR 141.50	Penalty for trading on Navajo, Hopi or Zuni reservations without a license.	1,296	1.02522	1,329
25 CFR 211.55	Penalty for violation of leases of Tribal land for mineral development, violation of part 211, or failure to comply with a notice of noncompliance or cessation order.	1,558	1.02522	1,597
25 CFR 213.37	Penalty for failure of lessee to comply with lease of restricted lands of members of the Five Civilized Tribes in Oklahoma for mining, operating regulations at part 213, or orders.	1,296	1.02522	1,329
25 CFR 225.37	Penalty for violation of minerals agreement, regulations at part 225, other applicable laws or regulations, or failure to comply with a notice of noncompliance or cessation order.	1,650	1.02522	1,692
25 CFR 226.42	Penalty for violation of lease of Osage reservation lands for oil and gas mining or regulations at part 226, or noncompliance with the Superintendent's order.	924	1.02522	948
25 CFR 226.43(a)	Penalty per day for failure to obtain permission to start operations	92	1.02522	94
25 CFR 226.43(b)	Penalty per day for failure to file records	92	1.02522	94
25 CFR 226.43(c)	Penalty for each well and tank battery for failure to mark wells and tank batteries.	92	1.02522	94
25 CFR 226.43(d)	Penalty each day after operations are commenced for failure to construct and maintain pits.	92	1.02522	94
25 CFR 226.43(e)	Penalty for failure to comply with requirements regarding valve or other approved controlling device.	185	1.02522	189
25 CFR 226.43(f)	Penalty for failure to notify Superintendent before drilling, redrilling, deepening, plugging, or abandoning any well.	369	1.02522	379
25 CFR 226.43(g)	Penalty per day for failure to properly care for and dispose of deleterious fluids.	924	1.02522	948
25 CFR 226.43(h)	Penalty per day for failure to file plugging and other required reports	92	1.02522	94
25 CFR 227.24	Penalty for failure of lessee of certain lands in Wind River Indian Reservation, Wyoming, for oil and gas mining to comply with lease provisions, operating regulations, regulations at part 227, or orders.	1,296	1.02522	1,329
25 CFR 243.8	Penalty for non-Native transferees of live Alaskan reindeer who violates part 243, takes reindeer without a permit, or fails to abide by permit terms.	6,111	1.02522	6,265
25 CFR 249.6(b)	Penalty for fishing in violation of regulations at part 249 (Off-Reservation Treaty Fishing).	1,296	1.02522	1,329

Consistent with the Act, the adjusted penalty levels for 2019 will take effect immediately upon the effective date of the adjustment. The adjusted penalty levels for 2019 will apply to penalties assessed after that date including, if consistent with agency policy, assessments associated with violations that occurred on or after November 2, 2015 (the date of the Act). The Act does not, however, change previously assessed penalties that the Bureau is collecting or has collected. Nor does the Act change an agency's existing statutory authorities to adjust penalties.

III. Procedural Requirements

A. Regulatory Planning and Review (E.O. 12866 and 13563)

Executive Order 12866 provides that the Office of Information and Regulatory Affairs in the Office of Management and Budget will review all significant rules. The Office of Information and Regulatory Affairs has determined that this rule is not significant.

Executive Order 13563 reaffirms the principles of E.O. 12866 while calling for improvements in the nation's regulatory system to promote predictability, to reduce uncertainty, and to use the best, most innovative, and least burdensome tools for achieving regulatory ends. The executive order directs agencies to consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public where these approaches are relevant, feasible, and consistent with regulatory objectives. E.O. 13563 emphasizes further that regulations must be based on the best available science and that the rulemaking process must allow for public participation and an open exchange of ideas. We have developed this rule in a manner consistent with these requirements.

B. Reducing Regulation and Controlling Regulatory Costs (Executive Order 13771)

This rule is not an E.O. 13771 regulatory action because this rule is not significant under Executive Order 12866.

C. Regulatory Flexibility Act

This rule will not have a significant economic effect on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) because the rule makes adjustments for inflation.

D. Small Business Regulatory Enforcement Fairness Act

This rule is not a major rule under 5 U.S.C. 804(2), the Small Business Regulatory Enforcement Fairness Act. This rule:

(a) Does not have an annual effect on the economy of $100 million or more.

(b) Will not cause a major increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions.

(c) Does not have significant adverse effects on competition, employment, investment, productivity, innovation, or the ability of U.S.-based enterprises to compete with foreign-based enterprises.

E. Unfunded Mandates Reform Act

This rule does not impose an unfunded mandate on State, local, or tribal governments, or the private sector of more than $100 million per year. The rule does not have a significant or unique effect on State, local, or tribal governments or the private sector. A statement containing the information required by the Unfunded Mandates Reform Act (2 U.S.C. 1531 *et seq.*) is not required.

F. Takings (E.O. 12630)

This rule does not affect a taking of private property or otherwise have taking implications under Executive Order 12630. A takings implication assessment is not required.

G. Federalism (E.O. 13132)

Under the criteria in section 1 of Executive Order13132, this rule does not have sufficient federalism implications to warrant the preparation of a federalism summary impact statement. A federalism summary impact statement is not required.

H. Civil Justice Reform (E.O. 12988)

This rule complies with the requirements of Executive Order 12988. Specifically, this rule: (a) Meets the criteria of section 3(a) requiring that all regulations be reviewed to eliminate errors and ambiguity and be written to minimize litigation; and (b) meets the criteria of section 3(b)(2) requiring that all regulations be written in clear language and contain clear legal standards.

I. Consultation With Indian Tribes (E.O. 13175 and Departmental Policy)

The Department of the Interior strives to strengthen its government-to-government relationship with Indian tribes through a commitment to consultation with Indian Tribes and recognition of their right to self-governance and tribal sovereignty. We have evaluated this rule under the Department's consultation policy and under the criteria in Executive Order 13175 and have determined that it has no substantial direct effects on federally recognized Indian Tribes and that consultation under the Department's Tribal consultation policy is not required.

J. Paperwork Reduction Act

This rule does not contain information collection requirements, and a submission to the Office of Management and Budget under the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*) is not required. We may not conduct or sponsor, and you are not required to respond to, a collection of information unless it displays a currently valid OMB control number.

K. National Environmental Policy Act

This rule does not constitute a major Federal action significantly affecting the quality of the human environment. A detailed statement under the National Environmental Policy Act of 1969 (NEPA) is not required because the rule is covered by a categorical exclusion. This rule is excluded from the requirement to prepare a detailed statement because it is a regulation of an administrative nature. (For further information see 43 CFR 46.210(i).) We have also determined that the rule does not involve any of the extraordinary circumstances listed in 43 CFR 46.215 that would require further analysis under NEPA.

L. Effects on the Energy Supply (E.O. 13211)

This rule is not a significant energy action under the definition in Executive Order 13211. A Statement of Energy Effects is not required.

M. Clarity of This Regulation

We are required by Executive Orders 12866 (section 1 (b)(12)), 12988 (section 3(b)(1)(B)), and 13563 (section 1(a)), and by the Presidential Memorandum of June 1, 1998, to write all rules in plain language. This means that each rule we publish must:

(a) Be logically organized;

(b) Use the active voice to address readers directly;

(c) Use common, everyday words and clear language rather than jargon;

(d) Be divided into short sections and sentences; and

(e) Use lists and tables wherever possible.

If you feel that we have not met these requirements, send us comments by one of the methods listed in the **ADDRESSES** section. To better help us revise the rule, your comments should be as specific as possible. For example, you should tell us the numbers of the sections or paragraphs that you find unclear, which sections or sentences are too long, the sections where you feel lists or tables would be useful, etc.

N. Administrative Procedure Act

The Act requires agencies to publish annual inflation adjustments by no later than January 15, of each year, notwithstanding section 553 of the Administrative Procedure Act (APA) (5 U.S.C. 553). OMB has interpreted this direction to mean that the usual APA public procedure for rulemaking—which includes public notice of a proposed rule, an opportunity for public comment, and a delay in the effective date of a final rule—is not required when agencies issue regulations to implement the annual adjustments to civil penalties that the Act requires. Accordingly, we are issuing the 2019 annual adjustments as a final rule without prior notice or an opportunity for comment and with an effective date immediately upon publication in the **Federal Register**.

Section 553(b) of the Administrative Procedure Act (APA) provides that, when an agency for good cause finds that ''notice and public procedure . . . are impracticable, unnecessary, or contrary to the public interest,'' the agency may issue a rule without providing notice and an opportunity for prior public comment. Under section 553(b), the Bureau finds that there is good cause to promulgate this rule without first providing for public comment. It would not be possible to meet the deadlines imposed by the Act if we were to first publish a proposed rule, allow the public sufficient time to submit comments, analyze the comments, and publish a final rule. Also, the Bureau is promulgating this final rule to implement the statutory directive in the Act, which requires agencies to publish a final rule and to

update the civil penalty amounts by applying a specified formula. The Bureau has no discretion to vary the amount of the adjustment to reflect any views or suggestions provided by commenters. Accordingly, it would serve no purpose to provide an opportunity for public comment on this rule prior to promulgation. Thus, providing for notice and public comment is impracticable and unnecessary.

Furthermore, the Bureau finds under section 553(d)(3) of the APA that good cause exists to make this final rule effective immediately upon publication in the **Federal Register**. In the Act, Congress expressly required Federal agencies to publish annual inflation adjustments to civil penalties in the **Federal Register** by January 15 of each year, notwithstanding section 553 of the APA. Under the statutory framework and OMB guidance, the new penalty levels take effect immediately upon the effective date of the adjustment. The statutory deadline does not allow time to delay this rule's effective date beyond publication. Moreover, an effective date after January 15 would delay application of the new penalty levels, contrary to Congress's intent.

List of Subjects

25 CFR 140

Business and industry, Indians, Penalties.

25 CFR 141

Business and industry, Credit, Indians-business and finance, Penalties.

25 CFR 211

Geothermal energy, Indians-lands, Mineral resources, Mines, Oil and gas exploration, Reporting and recordkeeping requirements.

25 CFR 213

Indians-lands, Mineral resources, Mines, Oil and gas exploration, Reporting and recordkeeping requirements.

25 CFR 225

Geothermal energy, Indians-lands, Mineral resources, Mines, Oil and gas exploration, Penalties, Reporting and recordkeeping requirements, Surety bonds.

25 CFR 226

Indians-lands.

25 CFR 227

Indians-lands, Mineral resources, Mines, Oil and gas exploration, Reporting and recordkeeping requirements.

25 CFR 243

Indians, Livestock.

25 CFR 249

Fishing, Indians.

For the reasons given in the preamble, the Department of the Interior amends Chapter 1 of title 25 Code of Federal Regulations as follows.

Title 25—Indians

Chapter 1—Bureau of Indian Affairs

Department of the Interior

PART 140—LICENSED INDIAN TRADERS

■ 1. The authority citation for part 140 is revised to read as follows:

Authority: Sec. 5, 19 Stat. 200, sec. 1, 31 Stat. 1066 as amended; 25 U.S.C. 261, 262; 94 Stat. 544, 18 U.S.C. 437; 25 U.S.C. 2 and 9; 5 U.S.C. 301; and Sec. 701, Pub. L. 114–74, 129 Stat. 599, unless otherwise noted.

§ 140.3 [Amended]

■ 2. In § 140.3, remove ''$1,296'' and add in its place ''$1,329''.

PART 141—BUSINESS PRACTICES ON THE NAVAJO, HOPI AND ZUNI RESERVATIONS

■ 3. The authority citation for part 141 is revised to read as follows:

Authority: 5 U.S.C. 301; 25 U.S.C. 2 and 9; and Sec. 701, Pub. L. 114–74, 129 Stat. 599, unless otherwise noted.

§ 141.50 [Amended]

■ 4. In § 141.50, remove ''$1,296'' and add in its place ''$1,329''.

PART 211—LEASING OF TRIBAL LANDS FOR MINERAL DEVELOPMENT

■ 5. The authority citation for part 211 is revised to read as follows:

Authority: Sec. 4, Act of May 11, 1938 (52 Stat. 347); Act of August 1, 1956 (70 Stat. 744); 25 U.S.C. 396a–g; 25 U.S.C. 2 and 9; and Sec. 701, Pub. L. 114–74, 129 Stat. 599, unless otherwise noted.

§ 211.55 [Amended]

■ 6. In § 211.55(a), remove ''$1,558'' and add in its place ''$1,597''.

PART 213—LEASING OF RESTRICTED LANDS FOR MEMBERS OF FIVE CIVILIZED TRIBES, OKLAHOMA, FOR MINING

■ 7. The authority citation for part 213 is revised to read as follows:

Authority: Sec. 2, 35 Stat. 312; sec. 18, 41 Stat. 426; sec. 1, 45 Stat. 495; sec. 1, 47 Stat. 777; 25 U.S.C. 356; and Sec. 701, Pub. L. 114–74, 129 Stat. 599. Interpret or apply secs. 3, 11, 35 Stat. 313, 316; sec. 8, 47 Stat. 779, unless otherwise noted.

§ 213.37 [Amended]

■ 8. In § 213.37, remove ''$1,296'' and add in its place ''$1,329''.

PART 225—OIL AND GAS, GEOTHERMAL AND SOLID MINERALS AGREEMENTS

■ 9. The authority citation for part 225 is revised to read as follows:

Authority: 25 U.S.C. 2, 9, and 2101–2108; and Sec. 701, Pub. L. 114–74, 129 Stat. 599.

§ 225.37 [Amended]

■ 10. In § 225.37(a), remove ''$1,650'' and add in its place ''$1,692''.

PART 226—LEASING OF OSAGE RESERVATION LANDS FOR OIL AND GAS MINING

■ 9. The authority citation for part 226 is revised to read as follows:

Authority: Sec. 3, 34 Stat. 543; secs. 1, 2, 45 Stat. 1478; sec. 3, 52 Stat. 1034, 1035; sec. 2(a), 92 Stat. 1660; and Sec. 701, Pub. L. 114–74, 129 Stat. 599.

§ 226.42 [Amended]

■ 10. In § 226.42, remove ''$924'' and add in its place ''$948''.

§ 226.43 [Amended]

■ 11. In § 226.43:

■ a. Remove ''$92'' each time it appears and add in each place ''$94'' wherever it appears in this section.

■ b. In paragraph (e), remove ''$185'' and add in its place ''$189''.

■ c. In paragraph (f), remove ''$369'' and add in its place ''$379''.

■ d. In paragraph (g), remove ''$924'' and add in its place ''$948''.

PART 227—LEASING OF CERTAIN LANDS IN WIND RIVER INDIAN RESERVATION, WYOMING, FOR OIL AND GAS MINING

■ 12. The authority citation for part 227 is revised to read as follows:

Authority: Sec. 1, 39 Stat. 519; and Sec. 701, Pub. L. 114–74, 129 Stat. 599, unless otherwise noted.

§ 227.24 [Amended]

■ 13. In § 227.24, remove ''$1,296'' and add in its place ''$1,329''.

PART 243—REINDEER IN ALASKA

■ 14. The authority citation for part 243 is revised to read as follows:

Authority: Sec. 12, 50 Stat. 902; 25 U.S.C. 500K; and Sec. 701, Pub. L. 114–74, 129 Stat. 599.

§ 243.8 [Amended]

■ 15. In § 243.8(a), remove ''$6,111'' and add in its place ''$6,265''.

PART 249—OFF-RESERVATION TREATY FISHING

■ 16. The authority citation for part 249 is revised to read as follows:

Authority: 25 U.S.C. 2, and 9; 5 U.S.C. 301; and Sec. 701, Pub. L. 114–74, 129 Stat. 599, unless otherwise noted.

§ 249.6 [Amended]

■ 17. In § 249.6(b), remove ''$1,296'' and add in its place ''$1,329''.

Dated: February 1, 2019.

Tara Sweeney,

Assistant Secretary—Indian Affairs.

[FR Doc. 2019–07469 Filed 4–12–19; 8:45 am]

BILLING CODE 4337–15–P

DEPARTMENT OF LABOR

Occupational Safety and Health Administration

29 CFR Part 1910

Process Safety Management of Highly Hazardous Chemicals and Slings

AGENCY: Occupational Safety and Health Administration (OSHA), Labor.

ACTION: Final rule; technical amendments.

SUMMARY: OSHA is issuing technical amendments for minor corrections to the Process Safety Management of Highly Hazardous Chemicals and Slings standards.

DATES: Effective on April 15, 2019.

FOR FURTHER INFORMATION CONTACT:

Press inquiries: Frank Meilinger, Director, OSHA Office of Communications; telephone: (202) 693–1999; email: *meilinger.francis2@dol.gov.*

General and technical information: Lisa Long, Director, Office of Engineering Safety, OSHA Directorate of Standards and Guidance; telephone: (202) 693–2222; email: *long.lisa@dol.gov.*

SUPPLEMENTARY INFORMATION:

I. Summary and Explanation

Process Safety Management of Highly Hazardous Chemicals (§ 1910.1119)

Appendix A of the Process Safety Management (PSM) standard (§ 1910.1119) contains the ''List of Highly Hazardous Chemicals, Toxics and Reactives.'' A typographical error was recently discovered in the Chemical Abstract Service (''CAS'') number for the chemical ''Methyl Vinyl Ketone.'' The published version of the standard incorrectly lists the CAS number as ''79–84–4;'' the correct CAS number is ''78–94–4.'' The error first appears in the proposed rule of the standard (55 FR 29167, July 17, 1990). It should be noted that the incorrect CAS number, ''79–84–4,'' is not a valid CAS number and does not represent a different chemical. The error is that the numerals eight and nine of the CAS number for methyl vinyl ketone were accidentally switched when publishing the proposed rule. That error was repeated in the final rule (57 FR 6407, Feb. 24, 1991).

OSHA is correcting 29 CFR 1910.119 Process Safety Management of Highly Hazardous Chemicals to correct the CAS number for methyl vinyl ketone in Appendix A of the standard.

Slings (§ 1910.184)

On June 8, 2011, OSHA updated its standards regulating slings for general industry (§ 1910.184); shipyard employment (§§ 1915.112, 1915.113, and 1915.118), and construction (§ 1926.251). Modifications to these standards included removal of previous load capacity tables (§ 1910.184, tables N–184–1, N–184–3 through N–184–22; and G–1 through G–5, G–7, G–8, and G–10) and references to these tables (§ 1915.112; § 1915.113; and § 1926.251; tables H–1 and H–3 through H–19). The updated rule now requires employers to use slings with permanently affixed identification markings that depict the maximum load capacity. The final rule also provides similar protection for shackles in §§ 1915.113 and 1926.251.

OSHA is correcting 29 CFR 1910.184 Slings to restore two figures, Figure N–184–4 and Figure N–184–5,that were inadvertently removed by amendments published on June 8, 2011 (76 FR 33590; effective July 8, 2011). Figure N–184–4 shows the basic sling configurations with vertical legs. Figure N–184–5 shows the basic sling configurations with angled legs. Both of these figures are referenced in section (b) definitions of the standard and should not have been removed.

II. Exemption From Notice-and-Comment Procedures

OSHA determined that this rulemaking is not subject to the procedures for public notice and comment specified in Section 4 of the Administrative Procedures Act (5 U.S.C. 553), Section 6(b) of the Occupational Safety and Health Act of 1970 (29 U.S.C. 655(b)), and 29 CFR 1911.5. This rulemaking only corrects a minor typographical error and the erroneous deletion of illustrative figures and does not affect or change any existing rights or obligations. No stakeholder is likely to object to these corrections. Therefore, the agency finds good cause that public notice and comment are unnecessary within the meaning of 5 U.S.C. 553(b)(3)(B), 29 U.S.C. 655(b), and 29 CFR 1911.5.

List of Subjects in 29 CFR Part 1910

Process Safety Management of Highly Hazardous Chemicals; Slings.

Authority and Signature

Loren Sweatt, Acting Assistant Secretary of Labor for Occupational Safety and Health, authorized the preparation of this document pursuant to 29 U.S.C. 653,655, and 657, Secretary's Order 1–2012 (77 FR 3912; Jan. 25, 2012), and 29 CFR part 1911.

Signed at Washington, DC, on April 4, 2019.

Loren Sweatt,

Acting Assistant Secretary of Labor for Occupational Safety and Health.

Accordingly, OSHA is correcting 29 CFR part 1910 with the following technical amendments:

PART 1910—OCCUPATIONAL SAFETY AND HEALTH STANDARDS

Subpart H—Hazardous Materials

■ 1. The authority citation for subpart H of part 1910 continues to read as follows:

Authority: Sections 4, 6, and 8 of the Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, 657); Secretary of Labor's Order No. 12–71 (36 FR 8754), 8–76 (41 FR 25059), 9–83 (48 FR 35736), 1–90 (55 FR 9033), 6–96 (62 FR 111), 3–2000 (65 FR 50017), or 5–2007 (72 FR 31159), 4–2010 (75 FR 55355) or 1–2012 (77 FR 3912), as applicable; and 29 CFR part 1911.Sections 1910.103, 1910.106 through 1910.111, and 1910.119, 1910.120, and 1910.122 through 1910.126 also issued under 29 CFR part 1911.

Section 1910.119 also issued under Section 304, Clean Air Act Amendments of 1990 (Pub. L. 101–549), reprinted at 29 U.S.C.A. 655 Note.

Section 1910.120 also issued under Section 126, Superfund Amendments and Reauthorization Act of 1986 as amended (29 U.S.C.A. 655 Note), and 5 U.S.C. 553.

■ 2. In § 1910.119, revise appendix A to read as follows:

§ 1910.119 Process safety management of highly hazardous chemicals.

* * * * *

Appendix A to § 1910.119—List of Highly Hazardous Chemicals, Toxics and Reactives (Mandatory)

This appendix contains a listing of toxic and reactive highly hazardous chemicals

which present a potential for a catastrophic event at or above the threshold quantity.

Chemical name	CAS *	TQ **
Acetaldehyde	75–07–0	2500
Acrolein (2-Propenal)	107–02–8	150
Acrylyl Chloride	814–68–6	250
Allyl Chloride	107–05–1	1000
Allylamine	107–11–9	1000
Alkylaluminums	Varies	5000
Ammonia, Anhydrous	7664–41–7	10000
Ammonia solutions (>44% ammonia by weight)	7664–41–7	15000
Ammonium Perchlorate	7790–98–9	7500
Ammonium Permanganate	7787–36–2	7500
Arsine (also called Arsenic Hydride)	7784–42–1	100
Bis(Chloromethyl) Ether	542–88–1	100
Boron Trichloride	10294–34–5	2500
Boron Trifluoride	7637–07–2	250
Bromine	7726–95–6	1500
Bromine Chloride	13863–41–7	1500
Bromine Pentafluoride	7789–30–2	2500
Bromine Trifluoride	7787–71–5	15000
3-Bromopropyne (also called Propargyl Bromide)	106–96–7	100
Butyl Hydroperoxide (Tertiary)	75–91–2	5000
Butyl Perbenzoate (Tertiary)	614–45–9	7500
Carbonyl Chloride (see Phosgene)	75–44–5	100
Carbonyl Fluoride	353–50–4	2500
Cellulose Nitrate (concentration >12.6% nitrogen)	9004–70–0	2500
Chlorine	7782–50–5	1500
Chlorine Dioxide	10049–04–4	1000
Chlorine Pentrafluoride	13637–63–3	1000
Chlorine Trifluoride	7790–91–2	1000
Chlorodiethylaluminum (also called Diethylaluminum Chloride)	96–10–6	5000
1-Chloro-2,4-Dinitrobenzene	97–00–7	5000
Chloromethyl Methyl Ether	107–30–2	500
Chloropicrin	76–06–2	500
Chloropicrin and Methyl Bromide mixture	None	1500
Chloropicrin and Methyl Chloride mixture	None	1500
Cumene Hydroperoxide	80–15–9	5000
Cyanogen	460–19–5	2500
Cyanogen Chloride	506–77–4	500
Cyanuric Fluoride	675–14–9	100
Diacetyl Peroxide (Concentration >70%)	110–22–5	5000
Diazomethane	334–88–3	500
Dibenzoyl Peroxide	94–36–0	7500
Diborane	19287–45–7	100
Dibutyl Peroxide (Tertiary)	110–05–4	5000
Dichloro Acetylene	7572–29–4	250
Dichlorosilane	4109–96–0	2500
Diethylzinc	557–20–0	10000
Diisopropyl Peroxydicarbonate	105–64–6	7500
Dilaluroyl Peroxide	105–74–8	7500
Dimethyldichlorosilane	75–78–5	1000
Dimethylhydrazine, 1,1-	57–14–7	1000
Dimethylamine, Anhydrous	124–40–3	2500
2,4-Dinitroaniline	97–02–9	5000
Ethyl Methyl Ketone Peroxide (also Methyl Ethyl Ketone Peroxide; concentration >60%)	1338–23–4	5000
Ethyl Nitrite	109–95–5	5000
Ethylamine	75–04–7	7500
Ethylene Fluorohydrin	371–62–0	100
Ethylene Oxide	75–21–8	5000
Ethyleneimine	151–56–4	1000
Fluorine	7782–41–4	1000
Formaldehyde (Formalin)	50–00–0	1000
Furan	110–00–9	500
Hexafluoroacetone	684–16–2	5000
Hydrochloric Acid, Anhydrous	7647–01–0	5000
Hydrofluoric Acid, Anhydrous	7664–39–3	1000
Hydrogen Bromide	10035–10–6	5000
Hydrogen Chloride	7647–01–0	5000
Hydrogen Cyanide, Anhydrous	74–90–8	1000
Hydrogen Fluoride	7664–39–3	1000
Hydrogen Peroxide (52% by weight or greater)	7722–84–1	7500
Hydrogen Selenide	7783–07–5	150
Hydrogen Sulfide	7783–06–4	1500

Chemical name	CAS *	TQ **
Hydroxylamine	7803–49–8	2500
Iron, Pentacarbonyl	13463–40–6	250
Isopropylamine	75–31–0	5000
Ketene	463–51–4	100
Methacrylaldehyde	78–85–3	1000
Methacryloyl Chloride	920–46–7	150
Methacryloyloxyethyl Isocyanate	30674–80–7	100
Methyl Acrylonitrile	126–98–7	250
Methylamine, Anhydrous	74–89–5	1000
Methyl Bromide	74–83–9	2500
Methyl Chloride	74–87–3	15000
Methyl Chloroformate	79–22–1	500
Methyl Ethyl Ketone Peroxide (concentration >60%)	1338–23–4	5000
Methyl Fluoroacetate	453–18–9	100
Methyl Fluorosulfate	421–20–5	100
Methyl Hydrazine	60–34–4	100
Methyl Iodide	74–88–4	7500
Methyl Isocyanate	624–83–9	250
Methyl Mercaptan	74–93–1	5000
Methyl Vinyl Ketone	78–94–4	100
Methyltrichlorosilane	75–79–6	500
Nickel Carbonly (Nickel Tetracarbonyl)	13463–39–3	150
Nitric Acid (94.5% by weight or greater)	7697–37–2	500
Nitric Oxide	10102–43–9	250
Nitroaniline (para Nitroaniline	100–01–6	5000
Nitromethane	75–52–5	2500
Nitrogen Dioxide	10102–44–0	250
Nitrogen Oxides (NO; NO_2; N204; N203)	10102–44–0	250
Nitrogen Tetroxide (also called Nitrogen Peroxide)	10544–72–6	250
Nitrogen Trifluoride	7783–54–2	5000
Nitrogen Trioxide	10544–73–7	250
Oleum (65% to 80% by weight; also called Fuming Sulfuric Acid)	8014–95–7	1,000
Osmium Tetroxide	20816–12–0	100
Oxygen Difluoride (Fluorine Monoxide)	7783–41–7	100
Ozone	10028–15–6	100
Pentaborane	19624–22–7	100
Peracetic Acid (concentration >60% Acetic Acid; also called Peroxyacetic Acid)	79–21–0	1000
Perchloric Acid (concentration >60% by weight)	7601–90–3	5000
Perchloromethyl Mercaptan	594–42–3	150
Perchloryl Fluoride	7616–94–6	5000
Peroxyacetic Acid (concentration >60% Acetic Acid; also called Peracetic Acid)	79–21–0	1000
Phosgene (also called Carbonyl Chloride)	75–44–5	100
Phosphine (Hydrogen Phosphide)	7803–51–2	100
Phosphorus Oxychloride (also called Phosphoryl Chloride)	10025–87–3	1000
Phosphorus Trichloride	7719–12–2	1000
Phosphoryl Chloride (also called Phosphorus Oxychloride)	10025–87–3	1000
Propargyl Bromide	106–96–7	100
Propyl Nitrate	627–3–4	2500
Sarin	107–44–8	100
Selenium Hexafluoride	7783–79–1	1000
Stibine (Antimony Hydride)	7803–52–3	500
Sulfur Dioxide (liquid)	7446–09–5	1000
Sulfur Pentafluoride	5714–22–7	250
Sulfur Tetrafluoride	7783–60–0	250
Sulfur Trioxide (also called Sulfuric Anhydride)	7446–11–9	1000
Sulfuric Anhydride (also called Sulfur Trioxide)	7446–11–9	1000
Tellurium Hexafluoride	7783–80–4	250
Tetrafluoroethylene	116–14–3	5000
Tetrafluorohydrazine	10036–47–2	5000
Tetramethyl Lead	75–74–1	1000
Thionyl Chloride	7719–09–7	250
Trichloro (chloromethyl) Silane	1558–25–4	100
Trichloro (dichlorophenyl) Silane	27137–85–5	2500
Trichlorosilane	10025–78–2	5000
Trifluorochloroethylene	79–38–9	10000
Trimethyoxysilane	2487–90–3	1500

* Chemical Abstract Service Number.
** Threshold Quantity in Pounds (Amount necessary to be covered by this standard).

* * * * *

Subpart N—Materials Handling and Storage

■ 3. The authority citation for subpart N of part 1910 continues to read as follows:

Authority: 29 U.S.C. 653, 655, 657; Secretary of Labor's Order No. 12–71 (36 FR 8754), 8–76 (41 FR 25059), 9–83 (48 FR 35736), 1–90 (55 FR 9033), 6–96 (62 FR 111), 3–2000 (65 FR 50017), 5–2002 (67 FR 65008), 5–2007 (72 FR 31159), 4–2010 (75 FR 55355), or 1–2012 (77 FR 3912), as applicable; and 29 CFR part 1911.

■ 4. In § 1910.184, add Figures N–184–4 and N–184–5 immediately after Figure N–184–3 to read as follows:

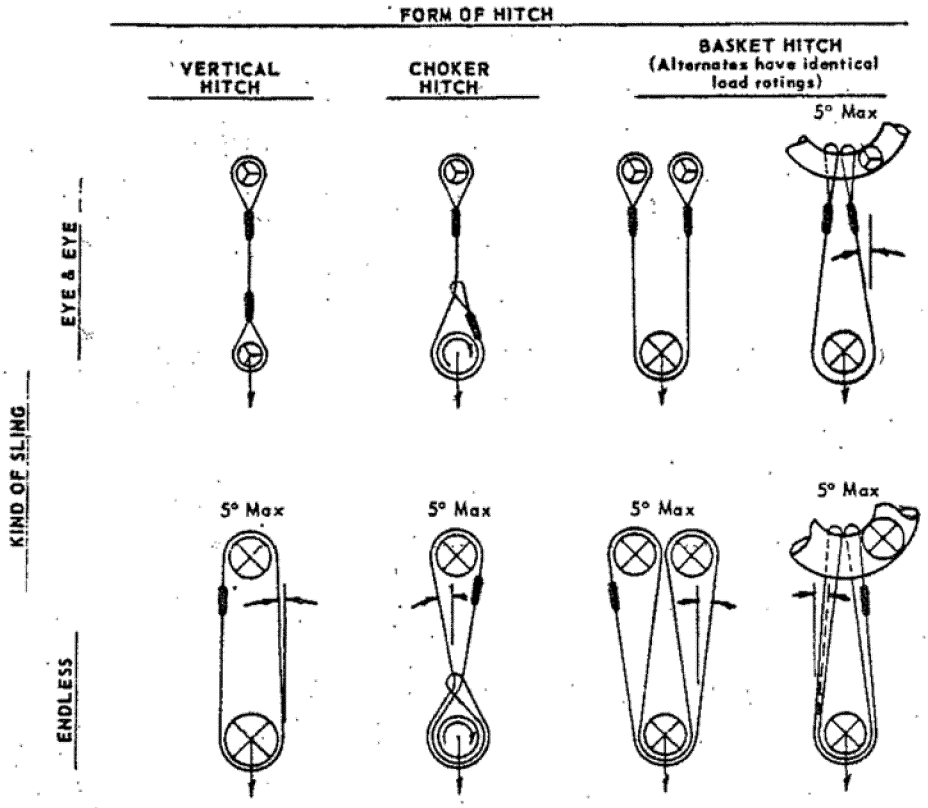
§ 1910.184 Slings.

* * * * *

BILLING CODE 4510–26–P

FIGURE N-184-4

Basic Sling Configurations
with Vertical Legs



NOTES: Angles 5° or less from the vertical may be considered vertical angles.

For slings with legs more than 5° off vertical, the actual angle as shown in Figure N-184-5 must be considered.

EXPLANATION OF SYMBOLS: MINIMUM DIAMETER OF CURVATURE

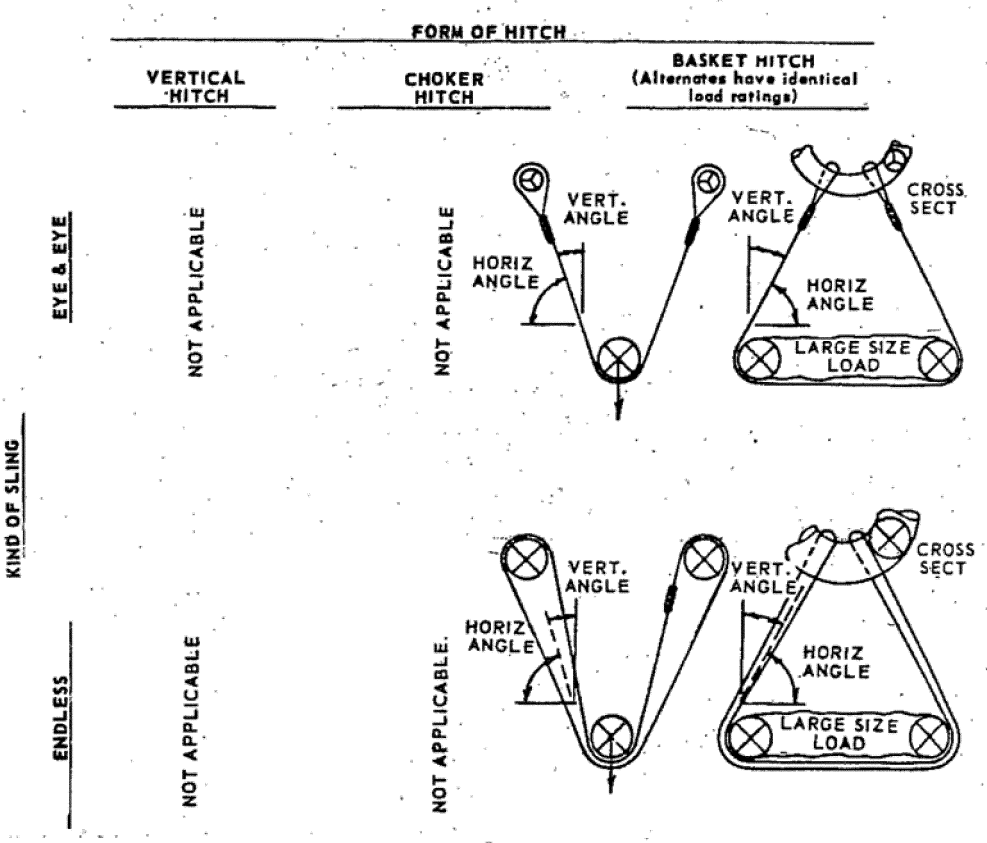
Represents a contact surface which shall have a diameter of curvature at least double the diameter of the rope from which the sling is made.

Represents a contact surface which shall have a diameter of curvature at least 8 times the diameter of the rope.

Represents a load in a choker hitch and illustrates the rotary force on the load and/or the slippage of the rope in contact with the load. Diameter of curvature of load surface shall be at least double the diameter of the rope.

FIGURE N-184-5

Sling Configurations with Angled Legs



NOTES: For vertical angles of 5° or less, refer to Figure N-184-4 "Basic Sling Configurations with Vertical Legs".

See Figure N-184-4 for explanation of symbols.

* * * * *

[FR Doc. 2019–07286 Filed 4–12–19; 8:45 am]

BILLING CODE 4510–26–C

PENSION BENEFIT GUARANTY CORPORATION

29 CFR Part 4022

Benefits Payable in Terminated Single-Employer Plans; Interest Assumptions for Paying Benefits

AGENCY: Pension Benefit Guaranty Corporation.

ACTION: Final rule.

SUMMARY: This final rule amends the Pension Benefit Guaranty Corporation's regulation on Benefits Payable in Terminated Single-Employer Plans to prescribe certain interest assumptions under the regulation for plans with valuation dates in May 2019. These interest assumptions are used for paying certain benefits under terminating single-employer plans covered by the pension insurance system administered by PBGC.

DATES: Effective May 1, 2019.

FOR FURTHER INFORMATION CONTACT: Gregory Katz (*katz.gregory@pbgc.gov*), Attorney, Regulatory Affairs Division, Pension Benefit Guaranty Corporation, 1200 K Street NW, Washington, DC 20005, 202–326–4400 ext. 3829. (TTY users may call the Federal relay service toll-free at 1–800–877–8339 and ask to be connected to 202–326–4400, ext. 3829.)

SUPPLEMENTARY INFORMATION: PBGC's regulation on Benefits Payable in Terminated Single-Employer Plans (29 CFR part 4022) prescribes actuarial assumptions—including interest assumptions—for paying plan benefits under terminated single-employer plans covered by title IV of the Employee Retirement Income Security Act of 1974 (ERISA). The interest assumptions in the regulation are also published on PBGC's website (*https://www.pbgc.gov*).

PBGC uses the interest assumptions in appendix B to part 4022 (''Lump Sum Interest Rates for PBGC Payments'') to determine whether a benefit is payable as a lump sum and to determine the amount to pay. Because some private-sector pension plans use these interest rates to determine lump sum amounts payable to plan participants (if the resulting lump sum is larger than the amount required under section 417(e)(3) of the Internal Revenue Code and section 205(g)(3) of ERISA), these rates are also provided in appendix C to part 4022 (''Lump Sum Interest Rates for Private-Sector Payments'').

This final rule updates appendices B and C of the benefits payment regulation to provide the rates for May 2019 measurement dates.

The May 2019 lump sum interest assumptions will be 1.00 percent for the

period during which a benefit is (or is assumed to be) in pay status and 4.00 percent during any years preceding the benefit's placement in pay status. In comparison with the interest assumptions in effect for April 2019, these assumptions represent a decrease of 0.25 percent in the immediate rate and are otherwise unchanged.

PBGC updates appendices B and C each month. PBGC has determined that notice and public comment on this amendment are impracticable and contrary to the public interest. This finding is based on the need to issue new interest assumptions promptly so that they are available for plans that rely on our publication of them each month to calculate lump sum benefit amounts.

Because of the need to provide immediate guidance for the payment of benefits under plans with valuation dates during May 2019, PBGC finds that good cause exists for making the assumptions set forth in this amendment effective less than 30 days after publication. PBGC has determined that this action is not a ''significant regulatory action'' under the criteria set forth in Executive Order 12866.

Because no general notice of proposed rulemaking is required for this amendment, the Regulatory Flexibility Act of 1980 does not apply. See 5 U.S.C. 601(2).

List of Subjects in 29 CFR Part 4022

Employee benefit plans, Pension insurance, Pensions, Reporting and recordkeeping requirements.

In consideration of the foregoing, 29 CFR part 4022 is amended as follows:

PART 4022—BENEFITS PAYABLE IN TERMINATED SINGLE-EMPLOYER PLANS

■ 1. The authority citation for part 4022 continues to read as follows:

Authority: 29 U.S.C. 1302, 1322, 1322b, 1341(c)(3)(D), and 1344.

■ 2. In appendix B to part 4022, rate set 307 is added at the end of the table to read as follows:

Appendix B to Part 4022—Lump Sum Interest Rates for PBGC Payments

* * * * *

Rate set	For plans with a valuation date		Immediate annuity rate (percent)	Deferred annuities (percent)				
	On or after	Before		i_1	i_2	i_3	n_1	n_2
*	*	*	*	*	*	*	*	
307	5–1–19	6–1–19	1.00	4.00	4.00	4.00	7	8

■ 3. In appendix C to part 4022, rate set 307 is added at the end of the table to read as follows:

Appendix C to Part 4022—Lump Sum Interest Rates for Private-Sector Payments

* * * * *

Rate set	For plans with a valuation date		Immediate annuity rate (percent)	Deferred annuities (percent)				
	On or after	Before		i_1	i_2	i_3	n_1	n_2
*	*	*	*	*	*	*	*	
307	5–1–19	6–1–19	1.00	4.00	4.00	4.00	7	8

Issued in Washington, DC.

Hilary Duke,

Assistant General Counsel for Regulatory Affairs, Pension Benefit Guaranty Corporation.

[FR Doc. 2019–07279 Filed 4–12–19; 8:45 am]

BILLING CODE 7709–02–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 52 and 81

[EPA–R03–OAR–2018–0215; FRL–9991–44-Region 3]

Air Plan Approval; District of Columbia, Maryland, and Virginia; Maryland and Virginia Redesignation Requests and District of Columbia, Maryland, and Virginia Maintenance Plan for the Washington, DC-MD-VA 2008 Ozone Standard Nonattainment Area

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency (EPA) is approving the requests from the State of Maryland (Maryland) and the Commonwealth of Virginia (Virginia) to redesignate to attainment their respective portions of the Washington, DC-MD-VA nonattainment area (hereafter ''the Washington Area'' or ''the Area'') for the 2008 8-hour ozone national ambient air quality standard (NAAQS or standard) (also referred to as the 2008 ozone NAAQS) as Maryland's and Virginia's portions of the Area meet the statutory requirements for redesignation under the Clean Air Act (CAA). EPA is therefore redesignating the following jurisdictions to attainment for the 2008 ozone NAAQS: The Counties of Calvert, Charles, Frederick, Montgomery, and Prince George's in Maryland as well as the Counties of Arlington, Fairfax, Loudoun, and Prince William and the Cities of Alexandria, Fairfax, Falls Church, Manassas, and Manassas Park in Virginia. EPA is also approving, as a revision to District of

Columbia's (the District), Maryland's, and Virginia's state implementation plans (SIPs), the joint Washington Area maintenance plan submitted by the District, Maryland, and Virginia, which demonstrates maintenance of the 2008 ozone NAAQS through 2030 in the Washington Area. The Washington Area maintenance plan includes motor vehicle emissions budgets (MVEBs) for the 2008 ozone NAAQS for nitrogen oxides (NO_X) and volatile organic compounds (VOCs), which are precursors to ozone. EPA has found the MVEBs adequate and is approving, as a SIP revision, these 2014, 2025, and 2030 NO_X and VOC MVEBs for the Washington Area.

DATES: This final rule is effective on May 15, 2019.

ADDRESSES: EPA has established a docket for this action under Docket ID Number EPA–R03–OAR–2018–0215. All documents in the docket are listed on the *https://www.regulations.gov* website. Although listed in the index, some information is not publicly available, *e.g.,* confidential business information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the internet and will be publicly available only in hard copy form. Publicly available docket materials are available through *https://www.regulations.gov,* or please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section for additional availability information.

FOR FURTHER INFORMATION CONTACT: Sara Calcinore, (215) 814–2043, or by email at *calcinore.sara@epa.gov.*

SUPPLEMENTARY INFORMATION:

I. Background

On May 21, 2012 and June 11, 2012, EPA designated nonattainment areas for the 2008 ozone NAAQS. 77 FR 30088 and 77 FR 34221. Effective July 20, 2012, the Washington Area was designated as marginal nonattainment for the 2008 ozone NAAQS. The Washington Area consists of the Counties of Calvert, Charles, Frederick, Montgomery, and Prince George's in Maryland, the Counties of Arlington, Fairfax, Loudoun, and Prince William and the Cities of Alexandria, Fairfax, Falls Church, Manassas, and Manassas Park in Virginia, and the District of Columbia. *See* 40 CFR 81.309, 81.321, and 81.347.

Section 107(d)(3)(E) of the CAA allows redesignation of an area to attainment of the NAAQS provided that: (1) The Administrator (EPA) determines that the area has attained the applicable NAAQS; (2) the Administrator has fully approved the applicable implementation plan for the area under section 110(k) of the CAA; (3) the Administrator determines that the improvement in air quality is due to permanent and enforceable reductions in emissions resulting from implementation of the applicable SIP, applicable Federal air pollutant control regulations, and other permanent and enforceable emission reductions; (4) the Administrator has fully approved a maintenance plan for the area as meeting the requirements of section 175A of the CAA; and (5) the State containing the area has met all requirements applicable to the area for purposes of redesignation under section 110 and part D of the CAA.[1]

On March 12, 2018, February 5, 2018, and January 3, 2018, the District, Maryland, and Virginia, respectively, formally submitted requests to redesignate their portions of the Washington Area from marginal nonattainment to attainment for the 2008 ozone NAAQS.[2] Concurrently, the District, Maryland, and Virginia formally submitted, as revisions to their respective SIPs, a joint maintenance plan prepared by the Metropolitan Washington Council of Governments (MWCOG) for the Washington Area to ensure continued attainment for at least 10 years following redesignation. The maintenance plan includes MVEBs for NO_X and VOC for the years 2014, 2025, and 2030.

On August 8, 2018 (83 FR 39019), EPA published a notice of proposed rulemaking (NPRM) for the District, Maryland, and Virginia. In the NPRM, EPA proposed approval of Maryland's and Virginia's requests to redesignate to attainment their respective portions of the Washington Area, pursuant to CAA section 107(d)(3).[3] EPA did not propose approval of the redesignation request for the District's portion of the Washington Area and will address the District's redesignation request for its portion of the Area in a separate rulemaking action. EPA also proposed to approve, as a revision to the District's, Maryland's, and Virginia's SIPs, the joint maintenance plan submitted by the District, Maryland, and Virginia that demonstrates maintenance of the 2008 ozone NAAQS through 2030 in the Washington Area. Additionally, EPA proposed to approve, as revisions to the District's, Maryland's, and Virginia's SIPs, the 2014, 2025, and 2030 MVEBs for NO_X and VOC for the Washington Area identified in the Washington Area maintenance plan.

II. Summary of SIP Revision and EPA Analysis

EPA reviewed the District's, Maryland's, and Virginia's redesignation requests and found that Maryland's and Virginia's portions of the Washington Area have satisfied the requirements for redesignation pursuant to CAA section 107(d)(3)(E). As one of the criteria for redesignation to attainment, section 107(d)(3)(E)(iv) of the CAA requires EPA to determine that the area has a fully approved maintenance plan pursuant to section 175A of the CAA that demonstrates continued attainment of the NAAQS for at least 10 years following redesignation to attainment. EPA reviewed the joint maintenance plan submitted by the District, Maryland, and Virginia and found that it satisfies the requirements of section 175A. The Washington Area maintenance plan includes 2014, 2025, and 2030 MVEBs for NO_X and VOC for the 2008 ozone NAAQS. EPA found the submitted MVEBs adequate and approvable as a revision to the District's, Maryland's, and Virginia's SIPs.[4] EPA's

[1] The following EPA guidance documents are included in the docket for this rulemaking available online at *https://www.regulations.gov,* Docket ID: EPA–R03–OAR–2018–0215: ''Procedures for Processing Requests to Redesignate Areas to Attainment,'' Memorandum from John Calcagni, Director, Air Quality Management Division, September 4, 1992 (the ''Calcagni memorandum'') and ''State Implementation Plan (SIP) requirements for Areas Submitting Requests for Redesignation to Attainment of the Ozone and Carbon Monoxide (CO) National Ambient Air Quality Standards (NAAQS) On or After November 15, 1992,'' Memorandum from Michael H. Shapiro, Acting Assistant Administrator for Air and Radiation, September 17, 1993 (the ''Shapiro memorandum'').

[2] In the August 8, 2018 NPRM (83 FR 39019), EPA incorrectly stated that Maryland's request to redesignate its portion of the Washington Area was submitted on January 29, 2018. Maryland's redesignation request and corresponding maintenance plan were submitted February 5, 2018.

[3] As stated previously, Maryland's portion of the Washington Area consists of the Counties of Calvert, Charles, Frederick, Montgomery, and Prince George's. Virginia's portion of the Washington Area consists of Counties of Arlington, Fairfax, Loudoun, and Prince William and the Cities of Alexandria, Fairfax, Falls Church, Manassas, and Manassas Park in Virginia. In the August 8, 2018 NPRM, EPA proposed to redesignate these areas to attainment for the 2008 ozone NAAQS.

[4] The adequacy comment period for the MVEBs began on May 21, 2018, with EPA's posting of the availability of the District's, Maryland's, and Virginia's maintenance plan submittal on EPA's Adequacy website (at *https://www.epa.gov/state-and-local-transportation*). The adequacy comment period for these MVEBs ended on June 20, 2018. EPA did not receive any adverse comments on this submittal during the adequacy comment period. EPA originally informed the District, Maryland, and Virginia that the 2014, 2025, and 2030 MVEBs were adequate for use in transportation conformity analyses in letters dated July 18, 2018. EPA revised language in these letters and sent the revised letters

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rationale for these actions can be found in the August 8, 2018 NPRM and corresponding Technical Support Documents (TSDs) included in the docket for this action available online at *www.regulations.gov,* Docket ID: EPA–R03–OAR–2018–0215.

III. Public Comments and EPA Response

EPA received comments on the August 8, 2018 NPRM from four commenters. Comments from two anonymous commenters did not concern any of the specific issues raised in the NPRM, nor did they address EPA's rationale for the proposed approval of Maryland's and Virginia's redesignation requests or the District's, Maryland's, and Virginia's joint maintenance plan. Therefore, EPA is not responding to those comments. EPA received relevant comments from two commenters. Those comments and EPA's responses are discussed below. All of the comments received and any submitted attachments are included in the docket for this action, available online at *www.regulations.gov,* Docket ID: EPA–R03–OAR–2018–0215.

Commenter 1: On August 16, 2018, EPA received anonymous comments on the August 8, 2018 NPRM. The commenter questioned how EPA can redesignate a portion of the Washington Area if the Area was designated as one nonattainment area due to air quality in the entire Area not meeting the standard. The commenter also questioned how the maintenance plan for the entire Washington Area could be approved without first redesignating the District's portion of the Area. The commenter suggested that the entire Washington Area, including the District, be redesignated prior to the approval of the maintenance plan.

EPA Response: Section 107(d)(3)(E) of the CAA, which sets forth the criteria that must be met to redesignate a nonattainment area, specifically mentions redesignating a portion of a nonattainment area. Section 107(d)(3)(E) states that ''[t]he Administrator may not promulgate a redesignation of a nonattainment area (*or portion thereof*) to attainment unless . . .'' five criteria in sections 107(d)(3)(E)(i)–(v) are met. (Emphasis added). Therefore, that statute allows EPA to redesignate to attainment Maryland's and Virginia's portions of the Washington Area without simultaneously redesignating the District's portion. *See, e.g.,* Pennsylvania portion of the Philadelphia-Wilmington, PA-NJ-DE nonattainment area for the 1997 Annual and 2006 24-Hour fine particulate matter standard, final rulemaking for redesignation, 80 FR 22112 (April 21, 2015); Ohio portion of the Youngstown-Warren-Sharon, OH-PA nonattainment area for the 1997 ozone NAAQS, final rulemaking for redesignation, 72 FR 32190 (June 12, 2007); Indiana portion of the Chicago-Gary-Lake County, IL-IN nonattainment area for the 1997 ozone NAAQS, final rulemaking for redesignation, 75 FR 26113 (May 11, 2010); and, West Virginia portion of the Huntington-Ashland, WV-KY nonattainment area for the 1997 ozone NAAQS, final rulemaking for redesignation, 71 FR 54421 (September 15, 2006).

Regarding the initial nonattainment designation for the Area based on air quality not meeting the standard, air quality in the entire Area has improved, and on November 14, 2017, EPA determined that the entire Washington Area attained the 2008 ozone NAAQS by the July 20, 2016 attainment date. 82 FR 52651. As discussed in the August 8, 2018 NPRM, the entire Washington Area also continues to attain the 2008 ozone NAAQS. Because the entire Area is in attainment, EPA received formal requests from the District, Maryland, and Virginia to redesignate their respective portions of the Washington Area to attainment for the 2008 ozone NAAQS. As explained in the NPRM, EPA found that Maryland and Virginia have satisfied the CAA section 107(d)(3)(E) requirements for redesignation of their respective portions of the Washington Area, so EPA is approving Maryland's and Virginia's requests and redesignating their respective portions of the Washington Area to attainment in accordance with section 107(d)(3)(E) of the CAA. As stated in the NPRM, EPA will act on the District's redesignation request at a later date.

The commenter also questioned how EPA can approve the maintenance plan for the Washington Area prior to redesignating the District's portion of the Area. However, CAA section 107(d)(3)(E)(iv) requires that in order to redesignate an area to attainment, EPA must first have fully approved a maintenance plan for the area meeting the requirements of CAA section 175A. EPA has long interpreted that provision to also allow for concurrent approval of the maintenance plan or other necessary SIP submissions. *See* Calcagni memorandum at 7. Because a maintenance plan is one of the prerequisites in sections 107(d)(3)(E)(i)–(iv) for redesignation, EPA cannot redesignate an area until the area has a maintenance plan approved by EPA.

Furthermore, nothing in CAA sections 107(d)(3)(E) or 175A prohibits EPA from approving a maintenance plan for an area prior to redesignating the area, and approving the maintenance plan into the District's SIP prior to redesignating the District does not adversely impact the District's ability to maintain the NAAQS and will provide for continued maintenance in the Washington Area, including the District, for the 2008 ozone NAAQS. Therefore, EPA is approving the maintenance plan as a revision to the District's, Maryland's, and Virginia's SIPs.

Commenter 2: On September 7, 2018, Earthjustice submitted comments on the August 8, 2018 NPRM on behalf of Sierra Club. The following is a summary of Earthjustice's comments and EPA's responses:

Comment 1: Earthjustice commented that redesignating the Washington Area under the 2008 ozone standard ''would authorize weaker protections against ozone despite the fact that the area continues to have unhealthy levels of ozone.'' Earthjustice noted that EPA just designated the Washington Area as nonattainment under the 2015 ozone NAAQS and that the most recent 2017 design value for the Washington Area is in violation of the 2015 standard. Earthjustice provided Air Quality Index (AQI) data for several days from May 2018 to August 2018 and stated that this year, air quality monitors within the Washington Area have ''repeatedly recorded ozone pollution levels exceeding the level of even the 1997 standard, while far more often exceeding the level of the 2008 and 2015 standards.'' [5] Earthjustice stated that, ''It is inconsistent with the Act's [CAA] statutory design to allow protections against the ozone pollution that plagues the region to be weakened via a redesignation under the 2008 ozone standard.''

EPA Response: EPA does not agree that redesignating the Washington Area to attainment for the 2008 ozone NAAQS will authorize weaker protections against ozone in the area. The August 8, 2018 NPRM proposes to redesignate the Washington Area only for the 2008 ozone NAAQS and does not affect the Washington Area's designation as marginal nonattainment

to the District, Maryland, and Virginia on July 24, 2018. The original and revised letters are available online at *https://www.regulations.gov,* Docket ID: EPA–R03–OAR–2018–0215.

[5] Earthjustice submitted AQI data from May 2, 2018, May 24, 2018, June 18, 2018, June 30, 2018, July 3, 2018, July 9, 2018, July 10, 2018, July 16, 2018, and August 10, 2018 with their comment, which are included in the docket for this action, available online at *www.regulations.gov,* Docket ID: EPA–R03–OAR–2018–0215.

for the more stringent 2015 ozone NAAQS. The 2008 ozone NAAQS and 2015 ozone NAAQS are two separate standards: Areas within states are designated for each standard and must satisfy the requirements applicable to their designation for each standard.[6] The redesignation of the Washington Area from marginal nonattainment to attainment of the 2008 ozone NAAQS will not change the Area's marginal nonattainment designation under the 2015 ozone NAAQS, nor exempt the Area from meeting the applicable requirements for marginal nonattainment areas under the 2015 ozone NAAQS. Because the Washington Area was classified as marginal nonattainment under both the 2008 and 2015 ozone standards, the Area is subject to the same statutory and associated regulatory requirements in subchapter I, Part D of the CAA under both standards. Therefore, redesignating the Washington Area for the 2008 ozone NAAQS will not remove any of the protections related to the Washington Area's marginal nonattainment designation under the more stringent 2015 ozone NAAQS.

In addition, as demonstrated in the NPRM, air quality in the Washington Area satisfies the CAA section 107(d)(3)(E)(i) requirement for redesignation to attainment under the 2008 ozone NAAQS, which requires the Administrator (EPA) to determine that the area has attained the applicable NAAQS. Therefore, in order to be redesignated to attainment of the 2008 ozone NAAQS, the Washington Area must, among other requirements, attain the 2008 ozone NAAQS. On November 14, 2017 (82 FR 52651), EPA determined that the entire Washington Area attained the 2008 ozone NAAQS by the July 20, 2016 attainment date because all of the Washington Area monitoring sites with valid data had design values less than or equal to 0.075 ppm during the 2013–2015 monitoring period. The Washington Area continues to attain the 2008 ozone NAAQS, as shown by 2014–2016 and 2015–2017 design values and preliminary 2016–2018 design values throughout the Area that continue to be below the 0.075 ppm level of the 2008 ozone NAAQS.[7]

TABLE 1—WASHINGTON AREA 2014–2016, 2015–2017, AND PRELIMINARY 2016–2018 OZONE DESIGN VALUES

AQS site ID	Site description	Jurisdiction	Annual 4th highest reading (ppm)					2014–2016 design value (ppm)	2015–2017 design value (ppm)	2016–2018 design value (ppm)[8]
			2014	2015	2016	2017	2018			
11–001–0041[9]	420 34th Street NE, Washington, DC 20019	District of Columbia	.....	.....	0.065	0.056	0.050	0.056	0.060	0.057
11–001–0043	2500 1st Street NW, Washington, DC	District of Columbia	0.068	0.072	0.072	0.071	0.073	0.070	0.071	0.072
11–001–0050	300 Van Buren Street NW, Washington, DC 20012.	District of Columbia	0.069	0.72	0.071	0.067	0.073	0.070	0.070	0.070
24–009–0011	350 Stafford Road	Maryland	0.070	0.067	0.070	0.066	0.067	0.069	0.067	0.067
24–017–0010	14320 Oaks Road	Maryland	0.070	0.068	0.073	0.068	0.068	0.070	0.069	0.069
24–021–0037	Frederick County Airport	Maryland	0.063	0.070	0.070	0.067	0.067	0.067	0.069	0.068
24–031–3001	Lathrop E. Smith Environmental Education Center.	Maryland	0.064	0.072	0.068	0.065	0.069	0.068	0.068	0.067
24–033–0030	Howard University's Beltsville Laboratory	Maryland	0.065	0.072	0.070	0.069	0.070	0.069	0.070	0.069
24–033–8003	PG County Equestrian Center	Maryland	0.069	0.069	0.073	0.072	0.070	0.070	0.071	0.071
24–033–9991	Powder Mill Rd Laurel, MD 20708	Maryland	0.069	0.067	0.070	0.070	0.073	0.068	0.069	0.071
51–013–0020	S 18th and Hayes St.	Virginia	0.071	0.073	0.072	0.070	0.070	0.072	0.071	0.070
51–059–0030	STA. 46–B9, Lee Park, Telegraph Road	Virginia	0.065	0.072	0.073	0.068	0.066	0.070	0.071	0.069
51–107–1005	38–I, Broad Run High School, Ashburn	Virginia	0.063	0.071	0.068	0.066	0.065	0.067	0.068	0.066
51–153–0009	James S. Long Park	Virginia	0.062	0.067	0.067	0.065	0.065	0.065	0.066	0.065

Therefore, the Washington Area has satisfied the requirement in CAA section 107(d)(3)(E)(i) for redesignation to attainment of the 2008 ozone NAAQS. The Washington Area's designation status for the 2015 ozone NAAQS is not relevant to determining if the Area has satisfied the requirement in CAA section 107(d)(3)(E)(i) for redesignation for the 2008 ozone NAAQS.

EPA notes that the 2015–2017 design value exceeds the 2015 ozone standard of 0.070 ppm but does not exceed the 2008 ozone standard of 0.075 ppm. Because this redesignation is only for the less stringent 2008 standard, a design value above the 2015 standard is not relevant, as long as it is below the 2008 standard. In addition, the other monitoring data (the AQI data) provided by Earthjustice are not design values. The values provided by Earthjustice are daily maximum concentrations of ozone at monitors located in the Washington Area. Compliance with the 2008 ozone NAAQS, as well as the 1997 and 2015 NAAQS, is not determined based on daily maximum concentrations, as implied by Earthjustice, but on design values exceeding the particular NAAQS standard. A design value for an air quality monitor is the three-year average of the annual fourth-highest daily maximum 8-hour average ozone concentrations recorded at that monitor. *See* 40 CFR 50.15(b). An area's design value is based on the monitor in the area which records the highest design value over the three-year period. As discussed in the August 8, 2018 NPRM, an area ''attains'' the 2008 ozone NAAQS if the area's design value is below 0.075 ppm. The final 2015–2017 design values, shown in Table 1, are below the 2008 ozone NAAQS. The most recent preliminary air quality monitoring data (2016–2018 design value) is also consistent with this finding. Thus, there is no evidence that the ozone design value for the Washington Area exceeded the 2008 ozone standard.

Comment 2: Earthjustice also stated that EPA cannot approve the

[6] On October 26, 2015, EPA strengthened both the primary and secondary NAAQS for ozone to a level of 0.070 parts per million (ppm) (annual fourth-highest daily maximum 8-hour average concentration, averaged over 3 years). *See* 80 FR 65292. The 2015 ozone NAAQS is more stringent than the 2008 ozone NAAQS, which was set at 0.075 ppm (annual fourth-highest daily maximum 8-hour average concentration, averaged over 3 years). *See* 73 FR 16483 (March 27, 2008). The Washington Area was designated as marginal nonattainment for the 2015 ozone NAAQS (83 FR 25776, June 4, 2018).

[7] A summary of the 2014 to 2016 ozone air quality data as well as the preliminary 2015–2017 ozone design values were provided in Table 1 of the August 8, 2018 NPRM. Since the publication of the NPRM, the 2015–2017 design values were finalized and preliminary 2016–2018 design value data became available. This data is included in the docket for this rulemaking action available online at *https://www.regulations.gov,* Docket ID: EPA–R03–OAR–2018–0215.

[8] As noted previously, the 2016–2018 design values are preliminary.

[9] The 2014 and 2015 data at monitoring site 11–001–0041 (also referred to as ''the River Terrace monitor'') is incomplete. Therefore, the 2014–2016 and 2015–2017 design values are invalid. The River Terrace monitor was temporarily shut down in March 2014 due to renovations at the monitoring site. The River Terrace monitor was reinstated in 2016, and began operation in May 2016. The temporary shutdown of the River Terrace monitor is discussed in more detail in the TSD for the August 8, 2018 NPRM available online at *https://www.regulations.gov,* Docket ID: EPA–R03–OAR–2018–0215.

redesignation of the Washington Area because the Area has not satisfied its anti-backsliding obligations under the 1997 ozone standard. Earthjustice commented that EPA failed to evaluate in the NPRM if the Washington Area has met the anti-backsliding requirements under the 1997 ozone NAAQS and that Virginia lacks EPA-approved reasonably available control technology (RACT) SIPs under the 1997 standard. Specifically, Earthjustice referenced EPA's ''SIP Dashboard,'' which showed that for Virginia's portion of the Washington, DC-MD-VA nonattainment area for the 1997 ozone NAAQS,[10] EPA had not approved the following RACT VOC control techniques guidelines (CTGs): *Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coatings* (Publication No. EPA 453/R–08–006; September 2008) (auto and light-duty truck assembly coatings CTG), *Control Techniques Guidelines for Fiberglass Boat Manufacturing* (Publication No. EPA 453/R–08–004; September 2008) (fiberglass boat manufacturing materials CTG), *Control Techniques Guidelines for Flat Wood Paneling Coatings* (Publication No. EPA 453/R–06–004; September 2006) (flat wood paneling coatings CTG), *Control Techniques Guidelines for Flexible Package Printing* (Publication No. EPA 453/R–06–003; September 2006) (flexible packaging printing materials CTG), *Control Techniques Guidelines for Large Appliance Coatings* (Publication No. EPA 453/R–07–004; September 2007) (large appliance coatings CTG), *Control Techniques Guidelines for Metal Furniture Coatings* (Publication No. EPA 453/R–07–005; September 2007) (metal furniture coatings CTG), *Control Techniques Guidelines for Paper, Film, and Foil Coatings* (Publication No. EPA 453/R–07–003; September 2007) (paper, film, and foil coatings CTG), and *Control of Refinery Vacuum Producing Systems, Wastewater Separators, and Process Unit Turnarounds* (Publication No. EPA 450/2–77–025; October 1977) (refinery vacuum producing systems, wastewater separators, and process unit turnarounds CTG).[11]

EPA Response: EPA disagrees that the Washington Area has not met its anti-backsliding requirements for the 1997 ozone standard. In accordance with 40 CFR 51.1105(a)(1), the Washington Area is subject to those anti-backsliding controls listed in 40 CFR 51.1100(o) that were applicable to an area with a moderate nonattainment classification as of the time of revocation, until the area is redesignated to attainment for the 2008 ozone NAAQS. EPA believes Virginia and Maryland have complied with all applicable anti-backsliding requirements for the revoked 1997 ozone NAAQS.

Specifically, with respect to ozone RACT requirements under the revoked 1997 standard, EPA believes that Virginia has met its obligations. The commenter is correct that at the time Earthjustice submitted its comment, EPA's ''SIP Dashboard'' indicated that Virginia did not have an approved RACT SIP for the refinery vacuum producing systems, wastewater separators, and process unit turnarounds CTG under the 1997 ozone NAAQS. However, this entry in the SIP Dashboard was incorrect. On October 23, 2006, Virginia submitted a SIP revision to EPA that addressed the requirements of RACT under the 1997 ozone NAAQS (also referred to at the time as the ''8-hour ozone NAAQS'') for all RACT VOC CTGs that were due at the time (September 15, 2006). EPA found that Virginia met all of the RACT requirements,[12] including those addressing the refinery vacuum producing systems, wastewater separators, and processes unit turnarounds CTG in question. On June 16, 2009 (74 FR 28444), EPA finalized approval of Virginia's October 23, 2006 SIP revision as satisfying the requirements of RACT under the 1997 8-hour ozone NAAQS.

Subsequent to Virginia's 2006 submittal, EPA issued additional CTGs for the 1997 ozone NAAQS in September 2006, 2007, and 2008.[13] With respect to CTG requirements covering lithographic printing materials and letterpress printing materials, industrial cleaning solvents, miscellaneous industrial adhesives, and miscellaneous metal products coatings and plastic parts coatings, Virginia submitted three SIP revisions on February 1, 2016 adopting RACT for these source categories located in the Northern Virginia Volatile Organic Compound Emissions Control Area. On August 23, 2016 (81 FR 57531), EPA approved Virginia's SIP revisions adopting RACT for these source categories.

Other 1997 ozone NAAQS CTGs issued subsequent to Virginia's 2006 SIP submission include those covering flat wood paneling coatings, flexible packaging printing materials, large appliance coatings, paper, film, and foil coatings, metal furniture coatings, fiberglass boat manufacturing materials, and auto and light-duty truck assembly coatings. However, no sources subject to these CTGs are located within the Northern Virginia Volatile Organic Compound Emissions Control Area.[14] Virginia therefore sent negative declaration letters to EPA on November 25, 2008 for the flat wood paneling coatings CTG and flexible packaging printing materials CTG, on December 3, 2008 for the large appliance coatings CTG, paper, film, and foil coatings CTG, and metal furniture coatings CTG, on May 6, 2009 for the fiberglass boat manufacturing materials CTG, and on May 18, 2009 for the auto and light-duty truck assembly coatings CTG.[15] These

[10] On April 30, 2004, EPA designated the following areas in Virginia as moderate nonattainment for the 1997 ozone NAAQS: The Counties of Arlington, Fairfax, Loudoun, and Prince William and the Cities of Alexandria, Fairfax, Falls Church, Manassas, and Manassas Park. *See* 69 FR 23858.

[11] A copy of the list submitted by Earthjustice to EPA as part of Earthjustice's comment is included in the docket for this rulemaking available online at *https://www.regulations.gov,* Docket ID: EPA–R03–OAR–2018–0215. The current version of EPA's ''SIP Dashboard'' may be accessed online at *https://www.epa.gov/air-quality-implementation-plans/sip-status-reports.*

[12] EPA found that Virginia met all of the RACT requirements for the 1997 8-hour ozone NAAQS through: Certification that previously adopted RACT controls in Virginia's SIP that were approved by EPA under the 1-hour ozone NAAQS are based on the currently available technically and economically feasible controls, and that they continue to represent RACT for 1997 8-hour implementation purposes; a negative declaration demonstrating that no facilities exist in the Virginia portion of the Washington, DC-MD-VA 1997 ozone NAAQS nonattainment area for certain CTG categories; and a new RACT determination for a specific source.

[13] The following RACT VOC CTGs were issued and/or became due after Virginia submitted their SIP submittal addressing the RACT CTG requirements for the 1997 ozone NAAQS: Auto and light-duty truck assembly coatings CTG; fiberglass boat manufacturing materials CTG; flat wood paneling coatings CTG; flexible packaging printing materials CTG; *Control Techniques Guidelines for Industrial Cleaning Solvents* (Publication No. EPA 453/R–06–001; September 2006) (industrial cleaning solvents CTG); large appliance coatings CTG; metal furniture coatings CTG; *Control Techniques Guidelines for Miscellaneous Industrial Adhesives* (Publication No. EPA 453/R–08–005; September 2008) (miscellaneous industrial adhesives CTG); *Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts Coatings* (Publication No. EPA 453/R–08–003; September 2008) (miscellaneous metal products coatings and plastic parts coatings CTGs); *Control Techniques Guidelines for Offset Lithographic Printing and Letterpress Printing* (Publication No. EPA 453/R–06–002; September 2006) (lithographic printing materials and letterpress printing materials); and paper, film, and foil coatings CTG. These CTGs were due one year from the date they were issued. Therefore, they were not addressed in Virginia's October 23, 2006 submittal addressing RACT requirements for the 1997 ozone NAAQS.

[14] The Northern Virginia Volatile Organic Compound Emissions Control Area consists of Arlington, Fairfax, Loudoun, Prince William, and Stafford Counties as well as the cities of Alexandria, Fairfax, Falls Church, Manassas, Manassas Park and therefore includes Virginia's portion of the Washington Area plus Stafford County.

[15] These negative declaration letters were submitted by Virginia in order to meet section 105

negative declaration letters certified that there are no sources located in the Northern Virginia Volatile Organic Compound Emissions Control Area subject to the RACT VOC CTGs for fiberglass boat manufacturing materials and auto and light-duty truck assembly coatings and no sources located in the Commonwealth of Virginia subject to the RACT VOC CTGs for large appliance coatings, paper, film, and foil coatings, metal furniture coatings, flat wood paneling coatings, and flexible packaging printing materials. Virginia has recently re-certified that there are no sources located in the relevant Control Area subject to these same CTGs as part of its December 12, 2017 SIP submission addressing Virginia's RACT obligations under the 2008 ozone NAAQS.[16] In addition, EPA consulted the latest version of EPA's National Emissions Inventory (2014 NEI v2) and confirmed that no facilities subject to these CTGs were found in Virginia's portion of the Washington Area.

Comment 3: Earthjustice stated that EPA cannot approve the proposed maintenance plan because the contingency measures do not include implementation of ''all measures with respect to the control of the air pollutant concerned which were contained in the State implementation plan for the area before redesignation of the area.'' *See* CAA section 175A(d).

EPA Response: The District, Maryland, and Virginia are not moving any of their existing SIP-approved measures into the contingency plan. These measures remain part of their active SIPs. Therefore, these measures are not included as part of the contingency plan in the maintenance plan for the Washington Area. The District's, Maryland's, and Virginia's maintenance plan states, ''This maintenance plan includes a commitment to continue to enforce all applicable requirements of past revisions to the state implementation plan (SIP) after the ozone nonattainment area is redesignated to attainment.''[17] On February 26, 2019, February 27, 2019, and February 6, 2019, EPA received letters from the District, Maryland, and Virginia, respectively, clarifying that this statement in the maintenance plan was intended to mean that, in accordance with section 175A(d) of the CAA, the District, Maryland, and Virginia will implement all measures, with respect to the control of ozone, that were contained in the SIPs for the Washington Area prior to redesignation of the Area to attainment and that any measures currently in the District's, Maryland's, and Virginia's SIPs, with respect to the control of ozone, will be retained as contingency measures for the 20-year maintenance period following redesignation of the Washington Area to attainment for the 2008 ozone NAAQS.[18] Therefore, EPA finds that the maintenance plan for the Washington Area satisfies the requirement of CAA section 175A(d) referenced in Earthjustice's comment.

Comment 4: Earthjustice commented that EPA cannot approve the maintenance plan because EPA proposed to approve ''a commitment to adopt contingency measures to address violations'' as a contingency measure. Earthjustice stated that EPA cannot approve the contingency measures in the maintenance plan because the commitment to adopt contingency measures to address violations is a ''promise to do later what's required now'' by CAA section 175A(d).

EPA Response: Section 175A(d) of the CAA requires that a maintenance plan include contingency provisions, as necessary, to promptly correct any violation of the NAAQS that occurs after redesignation of the area. States are not required to have fully-adopted contingency measures in their SIP in order for the maintenance plan to be approved.[19] Contingency measures are adopted and implemented by a State if a violation of the NAAQS occurs in the maintenance area or if a triggering event (also referred to as an ''indicator'') identified by the State in its maintenance plan occurs.[20] The District's, Maryland's, and Virginia's joint maintenance plan identifies specific measures that EPA has found to be appropriate to use as contingency measures.[21] In addition to these measures, the District, Maryland, and Virginia commit in their maintenance plan to adopt, as SIP revisions, additional contingency measures if necessary to address a violation of the 2008 ozone NAAQS in the Washington Area. This commitment strengthens the contingency measures in the maintenance plan by providing assurance that if a violation of the 2008 ozone NAAQS occurs in the Washington Area that may not be responsive using the existing contingency measures in the maintenance plan, the District, Maryland, and Virginia can assess the specific cause of the violation and adopt appropriate, tailored contingency measures as necessary. The contingency measures included in the District's, Maryland's, and Virginia's maintenance plan satisfy the requirements for contingency measures in CAA section 175A as well as the Calcagni memorandum.[22]

Comment 5: Earthjustice commented that if EPA approves the proposed redesignation, EPA ''should make clear in the final action that the redesignation does not affect obligations that apply via the Washington nonattainment area's severe classification under the 1-hour ozone NAAQS.''

grant commitments for 2009 and 2010 and are included in the docket for this rulemaking available online at *https://www.regulations.gov,* Docket ID: EPA–R03–OAR–2018–0215.

[16] We note that RACT SIPs submitted to address the 2008 ozone NAAQS are not applicable requirements for purposes of redesignation under CAA section 107(d)(3)(E)(ii) and (v). As explained in the August 8, 2018 NPRM, EPA has interpreted the CAA section 184 requirements, including reasonable available control technology (RACT), as not applicable under these provisions because they apply to the Washington Area pursuant to the Area's inclusion in the ozone transport region (OTR), and are not tied to the area's designation status. *See* 61 FR 53174, 53175–53176 (October 10, 1996) and 62 FR 24826, 24830–24832 (May 7, 1997). Therefore, the Washington Area will remain subject to the requirements of CAA section 184, including RACT, even after redesignation.

[17] *See* pages 11 and 15–17 of the ''Maintenance Plan for the Washington DC-MD-VA 2008 Ozone NAAQS Nonattainment Area,'' prepared by the Metropolitan Washington Council of Governments, December 20, 2017 included in the docket for this rulemaking available online at *https://www.regulations.gov,* Docket ID: EPA–R03–OAR–2018–0215.

[18] These February 26, 2019, February 27, 2019, and February 6, 2019 clarifying letters from the District, Maryland, and Virginia, respectively, are included in the docket for this rulemaking available online at *https://www.regulations.gov,* Docket ID: EPA–R03–OAR–2018–0215.

[19] *See* ''Procedures for Processing Requests to Redesignate Areas to Attainment,'' Memorandum from John Calcagni, Director, Air Quality Management Division, September 4, 1992 (the ''Calcagni memorandum'') included in the docket for this rulemaking available online at *https://www.regulations.gov,* Docket ID: EPA–R03–OAR–2018–0215.

[20] The Calcagni memorandum states that the State should identify in the maintenance plan specific indicators, or ''triggers'', to be used to determine when the contingency measures need to be implemented.

[21] *See* the discussion of the contingency measures included in the District's, Maryland's, and Virginia's maintenance plan in the August 8, 2018 NPRM as well as the July 19, 2018 ''Technical Support Document for the Approval of the Maryland and Virginia Redesignation Requests and District of Columbia, Maryland, and Virginia Maintenance Plan for the Washington, DC-MD-VA 2008 Ozone Standard Nonattainment Area'' included in the docket for this rulemaking available online at *https://www.regulations.gov,* Docket ID: EPA–R03–OAR–2018–0215.

[22] For a detailed analysis of the contingency measures included in the District's, Maryland's, and Virginia's maintenance plan, see the August 8, 2018 NPRM as well as the July 19, 2018 ''Technical Support Document for the Approval of the Maryland and Virginia Redesignation Requests and District of Columbia, Maryland, and Virginia Maintenance Plan for the Washington, DC-MD-VA 2008 Ozone Standard Nonattainment Area'' included in the docket for this rulemaking available online at *https://www.regulations.gov,* Docket ID: EPA–R03–OAR–2018–0215.

EPA Response: EPA's approval of Maryland's and Virginia's redesignation requests for the Washington Area for the 2008 ozone NAAQS and the associated maintenance plan submitted by the District, Maryland, and Virginia pertains to the 2008 ozone NAAQS and the anti-backsliding requirements for the 1997 ozone NAAQS and does not affect obligations that apply under 40 CFR 51.905(a) for the 1-hour ozone NAAQS. *South Coast Air Quality Mgmt. Dist.* v. *EPA,* 882 F.3d 1138, 1151 (D.C. Cir. 2018).

Comment 6: Earthjustice stated that EPA should not finalize the August 8, 2018 NPRM nor redesignate the Washington Area to attainment for the 2008 ozone NAAQS.

EPA Response: EPA disagrees with Earthjustice's comment that EPA should not finalize the August 8, 2018 NPRM. EPA finds that Maryland's and Virginia's portions of the Washington Area satisfy the requirements for redesignation under CAA section 107(d)(3)(E) for the 2008 ozone NAAQS. EPA also still finds that the joint maintenance plan submitted by the District, Maryland, and Virginia for the Washington Area satisfies the requirements of CAA section 175A. Therefore, EPA is approving the requests from Maryland and Virginia to redesignate to attainment their respective portions of the Washington Area for the 2008 ozone NAAQS as well as the joint maintenance plan submitted by the District, Maryland, and Virginia.

IV. Final Action

EPA is approving the requests from Maryland and Virginia to redesignate to attainment their respective portions of the Washington Area for the 2008 ozone NAAQS. EPA is not at this time approving the redesignation request from the District but will address the District's redesignation request in a separate rulemaking action. EPA is also approving, as a revision to the District's, Maryland's, and Virginia's SIPs, the joint maintenance plan submitted by the District, Maryland, and Virginia. The joint maintenance plan demonstrates maintenance of the 2008 ozone NAAQS through 2030 in the Washington Area and includes 2014, 2025, and 2030 MVEBs for NO_X and VOCs for the 2008 ozone NAAQS. Finally, EPA has found adequate and is approving these 2014, 2025, and 2030 NO_X and VOC MVEBs for the Washington Area.

V. General Information Pertaining to SIP Submittals From the Commonwealth of Virginia

In 1995, Virginia adopted legislation that provides, subject to certain conditions, for an environmental assessment (audit) ''privilege'' for voluntary compliance evaluations performed by a regulated entity. The legislation further addresses the relative burden of proof for parties either asserting the privilege or seeking disclosure of documents for which the privilege is claimed. Virginia's legislation also provides, subject to certain conditions, for a penalty waiver for violations of environmental laws when a regulated entity discovers such violations pursuant to a voluntary compliance evaluation and voluntarily discloses such violations to the Commonwealth and takes prompt and appropriate measures to remedy the violations. Virginia's Voluntary Environmental Assessment Privilege Law, Va. Code Sec. 10.1–1198, provides a privilege that protects from disclosure documents and information about the content of those documents that are the product of a voluntary environmental assessment. The Privilege Law does not extend to documents or information that: (1) Are generated or developed before the commencement of a voluntary environmental assessment; (2) are prepared independently of the assessment process; (3) demonstrate a clear, imminent and substantial danger to the public health or environment; or (4) are required by law.

On January 12, 1998, the Commonwealth of Virginia Office of the Attorney General provided a legal opinion that states that the Privilege law, Va. Code Sec. 10.1–1198, precludes granting a privilege to documents and information ''required by law,'' including documents and information ''required by federal law to maintain program delegation, authorization or approval,'' since Virginia must ''enforce federally authorized environmental programs in a manner that is no less stringent than their federal counterparts. . . .'' The opinion concludes that ''[r]egarding § 10.1–1198, therefore, documents or other information needed for civil or criminal enforcement under one of these programs could not be privileged because such documents and information are essential to pursuing enforcement in a manner required by federal law to maintain program delegation, authorization or approval.''

Virginia's Immunity law, Va. Code Sec. 10.1–1199, provides that ''[t]o the extent consistent with requirements imposed by federal law,'' any person making a voluntary disclosure of information to a state agency regarding a violation of an environmental statute, regulation, permit, or administrative order is granted immunity from administrative or civil penalty. The Attorney General's January 12, 1998 opinion states that the quoted language renders this statute inapplicable to enforcement of any federally authorized programs, since ''no immunity could be afforded from administrative, civil, or criminal penalties because granting such immunity would not be consistent with federal law, which is one of the criteria for immunity.''

Therefore, EPA has determined that Virginia's Privilege and Immunity statutes will not preclude the Commonwealth from enforcing its program consistent with the Federal requirements. In any event, because EPA has also determined that a state audit privilege and immunity law can affect only state enforcement and cannot have any impact on Federal enforcement authorities, EPA may at any time invoke its authority under the CAA, including, for example, sections 113, 167, 205, 211 or 213, to enforce the requirements or prohibitions of the state plan, independently of any state enforcement effort. In addition, citizen enforcement under section 304 of the CAA is likewise unaffected by this, or any, state audit privilege or immunity law.

VI. Statutory and Executive Order Reviews

A. General Requirements

Under the CAA, redesignation of an area to attainment and the accompanying approval of the maintenance plan under CAA section 107(d)(3)(E) are actions that affect the air quality designation status of geographical areas and do not impose any additional regulatory requirements on sources beyond those required by state law. A redesignation to attainment does not in and of itself impose any new requirements, but rather results in the application of requirements contained in the CAA for areas that have been redesignated to attainment. Moreover, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve State choices, provided that they meet the criteria of the CAA. Accordingly, this action merely approves State law as meeting Federal requirements and does not impose additional requirements beyond those imposed by State law. For that reason, this action:

- Is not a ''significant regulatory action'' subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735,

October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);

- Is not an Executive Order 13771 (82 FR 9339, February 2, 2017) regulatory action because it is not a significant regulatory action under Executive Order 12866.
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4);
- Does not have federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and
- Does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

The SIP is not approved to apply on any Indian reservation land as defined in 18 U.S.C. 1151 or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications and will not impose substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000). In addition, this rule does not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), because the SIP is not approved to apply in Indian country located in the state, and EPA notes that it will not impose substantial direct costs on tribal governments or preempt tribal law.

B. Submission to Congress and the Comptroller General

The Congressional Review Act, 5 U.S.C. 801 *et seq.,* as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this action and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a ''major rule'' as defined by 5 U.S.C. 804(2).

C. Petitions for Judicial Review

Under section 307(b)(1) of the CAA, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by June 14, 2019. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this action for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed and shall not postpone the effectiveness of such rule or action. This action approving Maryland's and Virginia's redesignation requests for their respective portions of the Washington Area as well as the District's, Maryland's, and Virginia's maintenance plan for the Washington Area may not be challenged later in proceedings to enforce its requirements. (See section 307(b)(2).)

List of Subjects

40 CFR Part 52

Environmental protection, Air pollution control, Carbon monoxide, Incorporation by reference, Intergovernmental relations, Lead, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds.

40 CFR Part 81

Environmental protection, Air pollution control, National parks, Wilderness areas.

Dated: March 19, 2019.

Cecil Rodrigues,

Acting Regional Administrator, Region III.

Title 40 CFR parts 52 and 81 are amended as follows:

PART 52—APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

■ 1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

Subpart J—District of Columbia

■ 2. In § 52.470, the table in paragraph (e) is amended by adding an entry for ''Maintenance plan for the District of Columbia portion of the Washington, DC-MD-VA Nonattainment Area for the 2008 8-hour ozone National Ambient Air Quality Standard'' at the end of the table to read as follows:

§ 52.470 Identification of plan.

* * * * *

(e) * * *

Name of non-regulatory SIP revision	Applicable geographic area	State submittal date	EPA approval date	Additional explanation
Maintenance plan for the District of Columbia portion of the Washington, DC-MD-VA Nonattainment Area for the 2008 8-hour ozone National Ambient Air Quality Standard.	District of Columbia	3/12/18	4/15/2019, [*Insert* ***Federal Register*** *citation*].	§ 52.476(j).

■ 3. Section 52.476 is amended by adding paragraph (j) to read as follows:

§ 52.476 Control strategy: ozone.

* * * * *

(j) EPA approves the maintenance plan for the District of Columbia portion of the Washington, DC-MD-VA nonattainment area for the 2008 8-hour ozone NAAQS submitted by the Director of the District of Columbia Department of Energy and Environment on March 12, 2018. The maintenance plan includes 2014, 2025, and 2030 motor vehicle emission budgets

(MVEBs) for VOC and NO_X to be applied to all future transportation conformity determinations and analyses for the entire Washington, DC-MD-VA area for the 2008 8-hour ozone NAAQS. The maintenance plan includes two sets of VOC and NO_X MVEBs: The MVEBs without transportation buffers are effective as EPA has determined them adequate for transportation conformity purposes; the MVEBs with transportation buffers will be used only as needed in situations where the conformity analysis must be based on different data, models, or planning assumptions, including, but not limited to, updates to demographic, land use, or project-related assumptions, than were used to create the set of MVEBs without transportation buffers. The technical analyses used to demonstrate compliance with the MVEBs and the need, if any, to use transportation buffers will be fully documented in the conformity analysis and follow the Transportation Planning Board's (TPB) interagency consultation procedures.

TABLE 3 TO PARAGRAPH (j)—MOTOR VEHICLE EMISSIONS BUDGETS FOR THE WASHINGTON, DC-MD-VA AREA

Type of control strategy SIP	Year	VOC (TPD)	NO_X (TPD)	Effective date of adequacy determination of SIP approval
Maintenance Plan	2014	61.3	136.8	5/15/2019.
	2025	33.2	40.7	
	2030	24.1	27.4	

TABLE 4 TO PARAGRAPH (j)—MOTOR VEHICLE EMISSIONS BUDGETS WITH TRANSPORTATION BUFFERS FOR THE WASHINGTON, DC-MD-VA AREA

Type of control strategy SIP	Year	VOC (TPD)	NO_X (TPD)	Effective date of adequacy determination of SIP approval
Maintenance Plan	2014	61.3	136.8	Contingent and effective upon interagency consultation.
	2025	39.8	48.8	
	2030	28.9	32.9	

Subpart V—Maryland

■ 4. In § 52.1070, the table in paragraph (e) is amended by adding an entry for ''Maintenance plan for the Maryland portion of the Washington, DC-MD-VA Nonattainment Area for the 2008 8-hour ozone National Ambient Air Quality Standard'' at the end of the table to read as follows:

§ 52.1070 Identification of plan.

* * * * *

(e) * * *

Name of non-regulatory SIP revision	Applicable geographic area	State submittal date	EPA approval date	Additional explanation
*	*	*	*	*
Maintenance plan for the Maryland portion of the Washington, DC-MD-VA Nonattainment Area for the 2008 8-hour ozone National Ambient Air Quality Standard.	Calvert, Charles, Frederick, Montgomery, and Prince George's Counties.	2/5/2018	4/15/2019, [*Insert* ***Federal Register*** *citation*].	§ 52.1076(ee).

■ 5. Section 52.1076 is amended by adding paragraph (ee) to read as follows:

§ 52.1076 Control strategy plans for attainment and rate-of-progress: Ozone.

* * * * *

(ee) EPA approves the maintenance plan for the Maryland portion of the Washington, DC-MD-VA nonattainment area for the 2008 8-hour ozone NAAQS submitted by the Secretary of the Maryland Department of the Environment on February 5, 2018. The maintenance plan includes 2014, 2025, and 2030 motor vehicle emission budgets (MVEBs) for VOC and NO_X to be applied to all future transportation conformity determinations and analyses for the entire Washington, DC-MD-VA area for the 2008 8-hour ozone NAAQS. The maintenance plan includes two sets of VOC and NO_X MVEBs: The MVEBs without transportation buffers are effective as EPA has determined them adequate for transportation conformity purposes; the MVEBs with transportation buffers will be used only as needed in situations where the conformity analysis must be based on different data, models, or planning assumptions, including, but not limited to, updates to demographic, land use, or project-related assumptions, than were used to create the set of MVEBs without transportation buffers. The technical analyses used to demonstrate compliance with the MVEBs and the need, if any, to use transportation buffers will be fully documented in the conformity analysis and follow the Transportation Planning Board's (TPB) interagency consultation procedures.

TABLE 9 TO PARAGRAPH (ee)—MOTOR VEHICLE EMISSIONS BUDGETS FOR THE WASHINGTON, DC-MD-VA AREA

Type of control strategy SIP	Year	VOC (TPD)	NO_X (TPD)	Effective date of adequacy determination of SIP approval
Maintenance Plan	2014	61.3	136.8	5/15/2019.
	2025	33.2	24.1	
	2030	40.7	27.4	

TABLE 10 TO PARAGRAPH (ee)—MOTOR VEHICLE EMISSIONS BUDGETS WITH TRANSPORTATION BUFFERS FOR THE WASHINGTON, DC-MD-VA AREA

Type of control strategy SIP	Year	VOC (TPD)	NO_X (TPD)	Effective date of adequacy determination of SIP approval
Maintenance Plan	2014	61.3	136.8	Contingent and effective upon interagency consultation.
	2025	39.8	48.8	
	2030	28.9	32.9	

Subpart VV—Virginia

■ 6. In § 52.2420, the table in paragraph (e)(1) is amended by adding an entry for ''Maintenance plan for the Virginia portion of the Washington, DC-MD-VA Nonattainment Area for the 2008 8-hour ozone National Ambient Air Quality Standard'' at the end of the table to read as follows:

§ 52.2420 Identification of plan.

* * * * *

(e) * * *

(1) * * *

Name of non-regulatory SIP revision	Applicable geographic area	State submittal date	EPA approval date	Additional explanation
*	*	*	*	*
Maintenance plan for the Virginia portion of the Washington, DC-MD-VA Nonattainment Area for the 2008 8-hour ozone National Ambient Air Quality Standard.	Arlington, Fairfax, Loudoun, and Prince William Counties and the Cities of Alexandria, Fairfax, Falls Church, Manassas, and Manassas Park.	1/3/18	4/15/2019, [*Insert* ***Federal Register*** *citation*].	§ 52.2428(m).

* * * * *

■ 7. Section 52.2428 is amended by adding paragraph (m) to read as follows:

§ 52.2428 Control Strategy: Carbon monoxide and ozone.

* * * * *

(m) EPA approves the maintenance plan for the Virginia portion of the Washington, DC-MD-VA nonattainment area for the 2008 8-hour ozone NAAQS submitted by the Director of the Virginia Department of Environmental Quality on January 3, 2018. The maintenance plan includes 2014, 2025, and 2030 motor vehicle emission budgets (MVEBs) for VOC and NO_X to be applied to all future transportation conformity determinations and analyses for the entire Washington, DC-MD-VA area for the 2008 8-hour ozone NAAQS. The maintenance plan includes two sets of VOC and NO_X MVEBs: The MVEBs without transportation buffers are effective as EPA has determined them adequate for transportation conformity purposes; the MVEBs with transportation buffers will be used only as needed in situations where the conformity analysis must be based on different data, models, or planning assumptions, including, but not limited to, updates to demographic, land use, or project-related assumptions, than were used to create the set of MVEBs without transportation buffers. The technical analyses used to demonstrate compliance with the MVEBs and the need, if any, to use transportation buffers will be fully documented in the conformity analysis and follow the Transportation Planning Board's (TPB) interagency consultation procedures.

TABLE 3 TO PARAGRAPH (m)—MOTOR VEHICLE EMISSIONS BUDGETS FOR THE WASHINGTON, DC-MD-VA AREA

Type of control strategy SIP	Year	VOC (TPD)	NO_X (TPD)	Effective date of adequacy determination of SIP approval
Maintenance Plan	2014	61.3	136.8	5/15/2019.
	2025	33.2	40.7	
	2030	24.1	27.4	

TABLE 4 TO PARAGRAPH (m)—MOTOR VEHICLE EMISSIONS BUDGETS WITH TRANSPORTATION BUFFERS FOR THE WASHINGTON, DC-MD-VA AREA

Type of control strategy SIP	Year	VOC (TPD)	NO_X (TPD)	Effective date of adequacy determination of SIP approval
Maintenance Plan	2014	61.3	136.8	Contingent and effective upon interagency consultation.
	2025	39.8	48.8	
	2030	28.9	32.9	

PART 81—DESIGNATION OF AREAS FOR AIR QUALITY PLANNING PURPOSES

■ 8. The authority citation for part 81 continues to read as follows:

Authority: 42 U.S.C. 7401, *et seq.*

Subpart C—Section 107 Attainment Status Designations

■ 9. In § 81.321, the table ''Maryland—2008 8-Hour Ozone NAAQS (Primary and secondary)'' is amended by revising the entry ''Washington, DC-MD-VA:'' to read as follows:

§ 81.321 Maryland.

* * * * *

MARYLAND—2008 8-HOUR OZONE NAAQS

[Primary and secondary]

Designated area	Designation		Classification	
	Date [1]	Type	Date [1]	Type
* *	*	*	*	*
Washington, DC-MD-VA: [2]	April 15, 2019	Attainment.		
Calvert County	April 15, 2019	Attainment.		
Charles County	April 15, 2019	Attainment.		
Frederick County	April 15, 2019	Attainment.		
Montgomery County	April 15, 2019	Attainment.		
Prince George's County	April 15, 2019	Attainment.		
* *	*	*	*	*

[1] This date is July 20, 2012, unless otherwise noted.
[2] Excludes Indian country located in each area, unless otherwise noted.

* * * * *

■ 10. In § 81.347, the table ''Virginia—2008 8-Hour Ozone NAAQS (Primary and secondary)'' is amended by:

■ a. Removing the footnote designation from the table heading ''Designated area'';

■ b. Revising the footnote designations for both ''Date'' table headings; and

■ c. Revising the entry ''Washington, DC-MD-VA:''.

The revisions read as follows:

§ 81.347 Virginia.

* * * * *

VIRGINIA—2008 8-HOUR OZONE NAAQS

[Primary and secondary]

Designated area	Designation		Classification	
	Date [1]	Type	Date [1]	Type
Washington, DC-MD-VA: [2]	April 15, 2019	Attainment.		
Arlington County	April 15, 2019	Attainment.		
Fairfax County	April 15, 2019	Attainment.		
Loudoun County	April 15, 2019	Attainment.		
Prince William County	April 15, 2019	Attainment.		
Alexandria City	April 15, 2019	Attainment.		
Fairfax City	April 15, 2019	Attainment.		
Falls Church City	April 15, 2019	Attainment.		
Manassas City	April 15, 2019	Attainment.		
Manassas Park City	April 15, 2019	Attainment.		
* *	*	*	*	*

[1] This date is July 20, 2012, unless otherwise noted.
[2] Excludes Indian country located in each area, unless otherwise noted.

* * * * *

[FR Doc. 2019–06128 Filed 4–12–19; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 147

[EPA–HQ–OW–2018–0669; FRL–9992–26–OW]

State of North Dakota Underground Injection Control Program; Class I, III, IV, and V Primacy Revisions

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency (EPA) is approving an application from the State of North Dakota under the Safe Drinking Water Act (SDWA) to revise the State's existing Underground Injection Control (UIC) Program for Class I, III, IV, and V injection wells located within the State, except those in Indian country. North Dakota has revised its UIC Class I, III, IV, and V program regulations to transfer primary enforcement authority from the North Dakota Department of Health to the North Dakota Department of Environmental Quality.

DATES: This final rule is effective on May 15, 2019. The Director of the Federal Register approved this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51 on May 15, 2019. For judicial purposes, this final rule is promulgated as of April 15, 2019.

ADDRESSES: The EPA has established a docket for this action under Docket ID No. EPA–HQ–OW–2018–0669. All documents in the docket are listed on the *http://www.regulations.gov* website. Although listed in the index, some information is not publicly available, *e.g.,* Confidential Business Information (CBI) or other information disclosure of which is restricted by statute. Certain other material, such as copyrighted material, is not placed on the internet and will be publicly available only in hard copy form. Publicly available docket materials are available electronically through *http://www.regulations.gov.*

FOR FURTHER INFORMATION CONTACT: Kyle Carey, Drinking Water Protection Division, Office of Ground Water and Drinking Water (4606M), U.S. Environmental Protection Agency, 1200 Pennsylvania Ave. NW, Washington, DC 20460; telephone number: (202) 564–2322; fax number: (202) 564–3754; email address: *carey.kyle@epa.gov,* or Omar Sierra-Lopez, Underground Injection Control Unit, Safe Drinking Water Program, Office of Water Protection (8WP–SUI), U.S. Environmental Protection Agency, Region 8, 1595 Wynkoop Street, Denver, Colorado 80202–1129; telephone number: (303) 312–7045; fax number: (303) 312–7517; email address: *sierra-lopez.omar@epa.gov.*

SUPPLEMENTARY INFORMATION:

I. Introduction

The EPA approved North Dakota's UIC program as meeting the requirements for primary enforcement responsibility (primacy) for Class I, III, IV, and V injection wells, under section 1422 of the Safe Drinking Water Act (SDWA), on September 21, 1984. The State has revised its UIC Class I, III, IV, and V program statutes and regulations to transfer this authority from the North Dakota Department of Health to the North Dakota Department of Environmental Quality.

II. Legal Authorities

These regulations are being promulgated under authority of sections 1422 and 1450 of the SDWA, 42 U.S.C. 300h–1 and 300j–9.

A. Revision of State UIC Programs

As required by section 1421 of the SDWA, the EPA promulgated minimum requirements in the *Code of Federal Regulations* (CFR) at 40 CFR part 145 for effective state UIC programs to prevent underground injection activities that endanger underground sources of drinking water (USDWs). Under section 1422 of the SDWA, once the EPA approves a state UIC program, the state has primary enforcement responsibility for the UIC program. A state may revise its UIC program as provided under 40 CFR 145.32(a) and by following the procedures described under 40 CFR 145.32(b), which require the state to submit a modified program description, an Attorney General's statement, a Memorandum of Agreement, or other such documentation as the EPA determines to be necessary under the circumstances (40 CFR 145.32(b)(1)). States with approved programs are required to notify the EPA whenever they propose to transfer all or part of the approved state agency to any other state agency and to identify any new division of responsibilities among the agencies involved. Organizational charts required in the state's original primacy approval package must be revised and resubmitted. The new agency is not authorized to administer the program until approval by the Administrator (40 CFR 145.32(c)).

All revisions to the UIC program are federally enforceable as of the effective date of the EPA's approval of the respective revision and 40 CFR part 147 codification.

In the EPA's announcement of its proposed rule in the **Federal Register** on December 4, 2018, Table 1 in the proposed amendment to 40 CFR part 147 indicated a State effective date of 2018 for the revisions to the North Dakota Century Code and North Dakota Administrative Code. In the final rule, the EPA is revising § 147.1751(a) to identify 2019 as the effective date of the statute and regulations that North Dakota submitted to the EPA in its program revision submission. The revised statute specified in § 147.1751(a) was enacted in 2018 and will be fully effective in April 2019. The revised regulations in § 147.1751(a) were promulgated in 2018 and became effective on January 1, 2019.

Consistent with the EPA Guidance 34, *Guidance for Review and Approval of State Underground Injection Control (UIC) Programs and Revisions to Approved State Programs,* the EPA considers state-initiated program revisions to transfer all or part of any program from the approved authority to another state agency as substantial program revisions. Under the EPA's regulations, this means that there was an opportunity for public comment and to request a public hearing (40 CFR 145.32(b)(2)).

B. Indian Country

The EPA's approval of North Dakota's application to transfer its SDWA UIC Class I, III, IV, and V primary enforcement authority from the North Dakota Department of Health to the North Dakota Department of Environmental Quality does not extend to Indian lands. Pursuant to the EPA's UIC regulations at 40 CFR 144.3, Indian lands ''means 'Indian country' as defined in 18 U.S.C. 1151.'' As defined in 18 U.S.C. 1151, Indian country generally includes lands within the exterior boundaries of the following Indian reservations located within North Dakota: The Fort Berthold Indian Reservation, the Spirit Lake Reservation, the Standing Rock Sioux Reservation, and the Turtle Mountain Reservation; any land held in trust by the United States for an Indian tribe; and any other areas that are Indian country within the meaning of 18 U.S.C. 1151. The EPA, or eligible Indian tribes, as appropriate, will retain responsibilities under the SDWA UIC program for Class I, III, IV, and V injection wells in Indian country.

III. North Dakota's Application

A. Notice of Completion

On September 18, 2018, the EPA received a complete program revision package from the State of North Dakota, requesting approval of its revised UIC regulations for Class I, III, IV, and V injection wells, to transfer primary enforcement authority from the North Dakota Department of Health to the North Dakota Department of Environmental Quality. The EPA has determined that the application contains all the required elements.

The UIC program revision package from the State of North Dakota includes revised versions of: (1) The description of the State's UIC program (40 CFR 145.23); (2) copies of all applicable State statutes, regulations, and forms (40 CFR 145.22(a)(5)); (3) the Attorney General's statement that the State has adequate legal authority to carry out the program described and to meet the requirements of 40 CFR part 145; and (4) the Memorandum of Agreement between the State of North Dakota and the EPA's Region 8 Administrator (40 CFR 145.25).

B. Public Participation Activities Conducted by the State of North Dakota

On April 12, 2018, the North Dakota Department of Environmental Quality provided public notice of its intent to amend and adopt North Dakota's 1422 Underground Injection Control Rules. The Department published the notice in 52 North Dakota newspapers. The Department accepted written comments on the proposed rule changes between April 12, 2018 and May 31, 2018. The Department received no comments. The Department held a public hearing regarding the UIC rules on March 21, 2018. There were no attendees.

C. Public Participation Activities Conducted by the EPA

On December 4, 2018, the EPA published a public notice in the Bismarck Tribune announcing the Agency's proposed approval, request for public comment, and notice of a public hearing to be held, if requested within 30 days, on January 8, 2019, and posted it on the EPA Region 8's website at: *https://www.epa.gov/uic/underground-injection-control-epa-region-8-co-mt-nd-sd-ut-and-wy.*

The EPA received three comments in response to the Agency's proposed rule. Further information regarding the comments can be found in the docket for this action under Docket ID No. EPA–HQ–OW–2018–0669. The EPA did not receive a request for a public hearing; as a result, the EPA announced that no public hearing would be held.

IV. The EPA's Final Action

A. What is the EPA finalizing in this action?

In this final rule, the EPA is approving the State of North Dakota's application to transfer its Class I, III, IV, and V primary enforcement authority from the North Dakota Department of Health to the North Dakota Department of Environmental Quality and to make conforming changes to its regulations to reflect such transfer. Regulations under 40 CFR part 147 set forth the applicable UIC programs for each of the states. This rule updates 40 CFR part 147, subpart JJ, to reflect the transfer of authority.

The supporting documents for this final rule are part of the public record in the EPA's Docket No. EPA–HQ–OW–2018–0669. This action amends 40 CFR part 147, subpart JJ, to incorporate by reference the revised EPA-approved State statutes and regulations. The EPA will continue to administer its UIC program for Class I, III, IV, and V injection wells in Indian country.

The EPA will continue to oversee the State of North Dakota's administration of UIC Class I, III, IV, V, and VI programs as authorized under the SDWA. Part of the EPA's oversight responsibility will require State quarterly reports of non-compliance and annual UIC performance reports pursuant to 40 CFR 144.8. The Memorandum of Agreement between the EPA and the State of North Dakota, signed by the Regional Administrator on September 18, 2018, provides the EPA with the opportunity to review and comment on all draft permits.

B. What codification decisions is the EPA making in this rule?

In this rule, the EPA is finalizing the Federal regulatory text that incorporates by reference the federally authorized North Dakota UIC program for Class I, III, IV, and V injection wells, except those in Indian country. In accordance with the requirements of 1 CFR 51.5, the EPA is finalizing the incorporation by reference of the North Dakota statutes and regulations described in the amendments to 40 CFR part 147 set forth below. The EPA has made, and will continue to make, these documents generally available through *www.regulations.gov* and at the U.S. Environmental Protection Agency, Region 8, Library 2nd Floor, 1595 Wynkoop Street, Denver, Colorado 80202–1129. The EPA is revising the incorporation by reference at 40 CFR 147.1751 with ''EPA-Approved North Dakota SDWA § 1422 Underground Injection Control Program Statutes and Regulations for Well Classes I, III, IV, V and VI,'' dated January 2019.

The EPA is also revising table 1 to paragraph (a) of § 147.1751, which lists the EPA-approved North Dakota statutes and regulations contained in the material incorporated by reference at 40 CFR 147.1751.

V. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This action is not a significant regulatory action and therefore the EPA did not submit it to the Office of Management and Budget (OMB) for review.

B. Executive Order 13771: Reducing Regulations and Controlling Regulatory Costs

This action is not an Executive Order 13771 regulatory action because this action is not significant under Executive Order 12866.

C. Paperwork Reduction Act (PRA)

This action does not impose any new information collection burden under the PRA. The OMB has previously approved the information collection activities contained in the existing regulations and has assigned OMB control number 2040–0042. Reporting or record-keeping requirements will be based on the State of North Dakota's UIC regulations, and the State of North Dakota is not subject to the PRA.

D. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. In making this determination, the impact of concern is any significant adverse economic impact on small entities. An agency may certify that a rule will not have a significant economic impact on a substantial number of small entities if the rule relieves regulatory burden, has no net burden, or otherwise has a positive economic effect on the small entities subject to the rule. This rule does not impose any requirements on small entities as this rule approves the State of North Dakota's UIC program revisions. We have therefore concluded that this action will have no net regulatory burden for all directly regulated small entities.

E. Unfunded Mandates Reform Act (UMRA)

This action does not contain any unfunded mandate as described in the

UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. The action imposes no enforceable duty on any state, local, or tribal governments or the private sector. The EPA's approval of the State of North Dakota's program revisions does not constitute a Federal mandate because there is no requirement that a state establish UIC regulatory programs and because the program is a state rather than a Federal program.

F. Executive Order 13132: Federalism

This action does not have federalism implications. It does not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.

G. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

This action does not have tribal implications as specified in Executive Order 13175. This action contains no Federal mandates for tribal governments and does not impose any enforceable duties on tribal governments. Thus, Executive Order 13175 does not apply to this action.

H. Executive Order 13045: Protection of Children From Environmental Health & Safety Risks

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that the EPA has reason to believe may disproportionately affect children, per the definition of ''covered regulatory action'' in section 2–202 of the Executive Order. This action is not subject to Executive Order 13045 because it approves the State of North Dakota's UIC program revisions.

I. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

This action is not subject to Executive Order 13211, because it is not a significant regulatory action under Executive Order 12866.

J. National Technology Transfer and Advancement Act

This rulemaking does not involve technical standards.

K. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations

The EPA has determined that this action is not subject to Executive Order 12898 (59 FR 7629, February 16, 1994) because it does not establish an environmental health or safety standard. This action simply approves North Dakota's transfer of its primary enforcement authority for its Class I, III, IV, and V wells, pursuant to which the State of North Dakota will be implementing and enforcing a State UIC regulatory program that is as stringent as the existing Federal program.

L. Congressional Review Act (CRA)

This action is subject to the CRA, and the EPA will submit a rule report to each House of the Congress and to the Comptroller General of the United States. This action is not a ''major rule'' as defined by 5 U.S.C. 804(2).

List of Subjects in 40 CFR Part 147

Environmental protection, Incorporation by reference, Indian lands, Intergovernmental relations, Reporting and recordkeeping requirements, Water supply.

Dated: April 8, 2019.

Andrew R. Wheeler,

Administrator.

For the reasons set out in the preamble, the Environmental Protection Agency is amending 40 CFR part 147 as follows:

PART 147—STATE, TRIBAL, AND EPA-ADMINISTERED UNDERGROUND INJECTION CONTROL PROGRAMS

■ 1. The authority citation for part 147 is revised to read as follows:

Authority: 42 U.S.C. 300f *et seq.;* and 42 U.S.C. 6901 *et seq.*

■ 2. Amend § 147.1751 by:
■ a. Revising the introductory text and paragraph (a);
■ b. Adding the word ''and'' at the end of paragraph (b)(1);
■ c. Removing paragraphs (b)(2) and (3);
■ d. Redesignating paragraph (b)(4) as paragraph (b)(2);
■ e. Revising paragraphs (c), (d), (e), (f), (g), and (h); and
■ f. Adding paragraph (i).

The revisions and addition read as follows:

§ 147.1751 State-administered program—Class I, III, IV, V and VI wells.

The UIC Program for Class I, III, IV, and V wells in the State of North Dakota, except those located on Indian lands, as defined under 40 CFR 144.3, is the program administered by the North Dakota Department of Environmental Quality, approved by the EPA pursuant to section 1422 of the SDWA. Notification of this approval was published in the **Federal Register** on April 15, 2019; the program is effective May 15, 2019. The UIC Program for Class VI wells in the State of North Dakota, except those located on Indian lands, is the program administered by the North Dakota Industrial Commission (NDIC), approved by the EPA pursuant to section 1422 of the SDWA. Notification of this approval was published in the **Federal Register** on April 24, 2018; the effective date of the NDIC UIC Class VI program is April 24, 2018. The State-administered UIC programs for Classes I, III, IV, V, and VI consist of the following elements, as submitted to the EPA in the State's program applications.

(a) The requirements set forth in the State statutes and regulations approved by the EPA for inclusion in ''EPA-Approved North Dakota SDWA § 1422 Underground Injection Control Program Statutes and Regulations for Well Classes I, III, IV, V and VI,'' dated January 2019, and listed in table 1 to this paragraph (a), are incorporated by reference and made a part of the applicable UIC program under the SDWA for the State of North Dakota. The Director of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of the material incorporated by reference in this paragraph (a) may be inspected at the U.S. Environmental Protection Agency, Region VIII, Library 2nd Floor, 1595 Wynkoop Street, Denver, Colorado 80202–1129. If you wish to obtain this material from the EPA Regional Office, call (303) 312–1226. Copies of this material also may be inspected at the EPA Headquarters Library, in the Water Docket, at the EPA Docket Center (EPA/DC), EPA WJC West, Room 3334, 1301 Constitution Ave. NW, Washington, DC 20460. If you wish to obtain this material from the EPA Docket Center, call (202) 566–2426. Copies of this material also may be inspected at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741–6030, or go to *www.archives.gov/federal-register/cfr/ibr-locations.html.*

TABLE 1 TO PARAGRAPH (a)—EPA-APPROVED NORTH DAKOTA SDWA SECTION 1422 UNDERGROUND INJECTION CONTROL PROGRAM STATUTES AND REGULATIONS FOR WELL CLASSES I, III, IV, V AND VI

State citation	Title/subject	State effective date	EPA approval date
North Dakota Century Code Sections 38–12–01 through 38–12–03.	Regulation, Development and Production of Subsurface Minerals.	1980	September 21, 1984, 49 FR 37066.
North Dakota Century Code Sections 61–28–02 and 61–28–06.	Control, Prevention and Abatement of Pollution of Surface Waters.	1989	March 6, 1991, 56 FR 9418.
North Dakota Century Code Sections 61–28.1–01 and 61–28.1–12.	Safe Drinking Water Act	2019	April 15, 2019, [insert **Federal Register** citation].
North Dakota Administrative Code Sections 33.1–25–01–01 through 33.1–25–01–18.	Underground Injection Control Program	2019	April 15, 2019, [insert **Federal Register** citation].
North Dakota Administrative Code Sections 43–02–02–01 through 43–02–02–50.	Subsurface Mineral Exploration and Development.	1986	March 6, 1991, 56 FR 9418.
North Dakota Administrative Code Sections 43–02–02.1–01 through 43–02–02.2–19.	Underground Injection Control Program	1984	September 21, 1984, 49 FR 37066.
North Dakota Century Code Sections 38–22–01 through 38–22–23.	Carbon Dioxide Underground Storage	2009	April 24, 2018, 83 FR 17761.
North Dakota Administrative Code Sections 38–08–16 and 38–08–17.	Control of Oil and Gas Resources	2013	April 24, 2018, 83 FR 17761.
North Dakota Administrative Code Sections 43–05–01–01 through 43–05–01–20.	Geologic Storage of Carbon Dioxide	2013	April 24, 2018, 83 FR 17761.

* * * * *

(c) The Memorandum of Agreement for the Class I, III, IV, and V Underground Injection Control Program between EPA Region 8 and the North Dakota Department of Environmental Quality, signed by the EPA Regional Administrator on September 18, 2018.

(d) The statement of legal authority, ''Class I, III, IV, and V Underground Injection Control Program, Attorney General's Statement,'' signed by the Assistant Attorney General of North Dakota on July 30, 2018, and the ''Supplement to the Attorney General Statements Relating to Programs Being Transferred to the North Dakota Department of Environmental Quality,'' signed by the Assistant Attorney General of North Dakota on October 23, 2018.

(e) The Class I, III, IV, and V Underground Injection Control Program Description and any other materials submitted as part of the program revision or as supplements thereto.

(f) The Memorandum of Agreement for the Class VI Underground Injection Control Program between EPA Region 8 and the North Dakota Industrial Commission, signed by the EPA Regional Administrator on October 28, 2013.

(g) The Memorandum of Understanding for Class VI between the North Dakota Industrial Commission, Department of Mineral Resources, Oil and Gas Division and the North Dakota Department of Health, Water Quality Division Related to the Underground Injection Control Program, signed on June 19, 2013.

(h) The statement of legal authority, ''Class VI Underground Injection Control Program, Attorney General's Statement,'' signed by the Attorney General of North Dakota on January 22, 2013.

(i) The Class VI Underground Injection Control Program Description and any other materials submitted as part of the program revision or as supplements thereto.

[FR Doc. 2019–07442 Filed 4–12–19; 8:45 am]

BILLING CODE 6560–50–P

DEPARTMENT OF HOMELAND SECURITY

Federal Emergency Management Agency

44 CFR Part 64

[Docket ID FEMA–2019–0003; Internal Agency Docket No. FEMA–8575]

Suspension of Community Eligibility

AGENCY: Federal Emergency Management Agency, DHS.

ACTION: Final rule.

SUMMARY: This rule identifies communities where the sale of flood insurance has been authorized under the National Flood Insurance Program (NFIP) that are scheduled for suspension on the effective dates listed within this rule because of noncompliance with the floodplain management requirements of the program. If the Federal Emergency Management Agency (FEMA) receives documentation that the community has adopted the required floodplain management measures prior to the effective suspension date given in this rule, the suspension will not occur and notification of this will be provided by publication in the **Federal Register** on a subsequent date. Also, information identifying the current participation status of a community can be obtained from FEMA's Community Status Book (CSB). The CSB is available at *https://www.fema.gov/national-flood-insurance-program-community-status-book.*

DATES: The effective date of each community's scheduled suspension is the third date (''Susp.'') listed in the third column of the following tables.

FOR FURTHER INFORMATION CONTACT: If you want to determine whether a particular community was suspended on the suspension date or for further information, contact Adrienne L. Sheldon, PE, CFM, Federal Insurance and Mitigation Administration, Federal Emergency Management Agency, 400 C Street SW, Washington, DC 20472, (202) 212–3966.

SUPPLEMENTARY INFORMATION: The NFIP enables property owners to purchase Federal flood insurance that is not otherwise generally available from private insurers. In return, communities agree to adopt and administer local

floodplain management measures aimed at protecting lives and new construction from future flooding. Section 1315 of the National Flood Insurance Act of 1968, as amended, 42 U.S.C. 4022, prohibits the sale of NFIP flood insurance unless an appropriate public body adopts adequate floodplain management measures with effective enforcement measures. The communities listed in this document no longer meet that statutory requirement for compliance with program regulations, 44 CFR part 59. Accordingly, the communities will be suspended on the effective date in the third column. As of that date, flood insurance will no longer be available in the community. We recognize that some of these communities may adopt and submit the required documentation of legally enforceable floodplain management measures after this rule is published but prior to the actual suspension date. These communities will not be suspended and will continue to be eligible for the sale of NFIP flood insurance. A notice withdrawing the suspension of such communities will be published in the **Federal Register**.

In addition, FEMA publishes a Flood Insurance Rate Map (FIRM) that identifies the Special Flood Hazard Areas (SFHAs) in these communities. The date of the FIRM, if one has been published, is indicated in the fourth column of the table. No direct Federal financial assistance (except assistance pursuant to the Robert T. Stafford Disaster Relief and Emergency Assistance Act not in connection with a flood) may be provided for construction or acquisition of buildings in identified SFHAs for communities not participating in the NFIP and identified for more than a year on FEMA's initial FIRM for the community as having flood-prone areas (section 202(a) of the Flood Disaster Protection Act of 1973, 42 U.S.C. 4106(a), as amended). This prohibition against certain types of Federal assistance becomes effective for the communities listed on the date shown in the last column. The Administrator finds that notice and public comment procedures under 5 U.S.C. 553(b), are impracticable and unnecessary because communities listed in this final rule have been adequately notified.

Each community receives 6-month, 90-day, and 30-day notification letters addressed to the Chief Executive Officer stating that the community will be suspended unless the required floodplain management measures are met prior to the effective suspension date. Since these notifications were made, this final rule may take effect within less than 30 days.

National Environmental Policy Act. FEMA has determined that the community suspension(s) included in this rule is a non-discretionary action and therefore the National Environmental Policy Act of 1969 (42 U.S.C. 4321 *et seq.*) does not apply.

Regulatory Flexibility Act. The Administrator has determined that this rule is exempt from the requirements of the Regulatory Flexibility Act because the National Flood Insurance Act of 1968, as amended, Section 1315, 42 U.S.C. 4022, prohibits flood insurance coverage unless an appropriate public body adopts adequate floodplain management measures with effective enforcement measures. The communities listed no longer comply with the statutory requirements, and after the effective date, flood insurance will no longer be available in the communities unless remedial action takes place.

Regulatory Classification. This final rule is not a significant regulatory action under the criteria of section 3(f) of Executive Order 12866 of September 30, 1993, Regulatory Planning and Review, 58 FR 51735.

Executive Order 13132, Federalism. This rule involves no policies that have federalism implications under Executive Order 13132.

Executive Order 12988, Civil Justice Reform. This rule meets the applicable standards of Executive Order 12988.

Paperwork Reduction Act. This rule does not involve any collection of information for purposes of the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.*

List of Subjects in 44 CFR Part 64

Flood insurance, Floodplains.

Accordingly, 44 CFR part 64 is amended as follows:

PART 64—[AMENDED]

■ 1. The authority citation for part 64 continues to read as follows:

Authority: 42 U.S.C. 4001 *et seq.;* Reorganization Plan No. 3 of 1978, 3 CFR, 1978 Comp.; p. 329; E.O. 12127, 44 FR 19367, 3 CFR, 1979 Comp.; p. 376.

§ 64.6 [Amended]

■ 2. The tables published under the authority of § 64.6 are amended as follows:

State and location	Community No.	Effective date authorization/cancellation of sale of flood insurance in community	Current effective map date	Date certain Federal assistance no longer available in SFHAs
Region IV				
Alabama:				
Baldwin County, Unincorporated Areas	015000	April 30, 1971, Emerg; January 12, 1973, Reg; April 19, 2019, Susp.	April 19, 2019	April 19, 2019.
Bay Minette, City of, Baldwin County	010004	April 23, 1975, Emerg; December 1, 1981, Reg; April 19, 2019, Susp.	do*	Do.
Elberta, Town of, Baldwin County	010212	N/A, Emerg; March 8, 2011, Reg; April 19, 2019, Susp.	do	Do.
Fairhope, City of, Baldwin County	010006	September 22, 1972, Emerg; January 5, 1978, Reg; April 19, 2019, Susp.	do	Do.
Gulf Shores, City of, Baldwin County	015005	January 15, 1971, Emerg; July 9, 1971, Reg; April 19, 2019, Susp.	do	Do.
Loxley, Town of, Baldwin County	010009	April 24, 1975, Emerg; December 1, 1981, Reg; April 19, 2019, Susp.	do	Do.
Magnolia Springs, Town of, Baldwin County	010524	N/A, Emerg; August 1, 2011, Reg; April 19, 2019, Susp.	do	Do.
Orange Beach, City of, Baldwin County	015011	April 30, 1971, Emerg; January 12, 1973, Reg; April 19, 2019, Susp.	do	Do.
Perdido Beach, Town of, Baldwin County	010523	N/A, Emerg; April 22, 2010, Reg; April 19, 2019, Susp.	do	Do.
Robertsdale, City of, Baldwin County	010222	August 28, 1978, Emerg; December 1, 1981, Reg; April 19, 2019, Susp.	do	Do.
Silverhill, Town of, Baldwin County	010010	April 28, 1976, Emerg; December 14, 1979, Reg; April 19, 2019, Susp.	do	Do.

State and location	Community No.	Effective date authorization/cancellation of sale of flood insurance in community	Current effective map date	Date certain Federal assistance no longer available in SFHAs
Spanish Fort, City of, Baldwin County	010429	May 3, 1999, Emerg; June 17, 2002, Reg; April 19, 2019, Susp.	.....do	Do.
Kentucky:				
Christian County, Unincorporated Areas	210277	May 2, 1997, Emerg; November 1, 1997, Reg; April 19, 2019, Susp.	April 19, 2019	April 19, 2019.
Princeton, City of, Caldwell County	210031	June 30, 1975, Emerg; August 19, 1986, Reg; April 19, 2019, Susp.	.....do	Do.

*.....do = Ditto.
Code for reading third column: Emerg.—Emergency; Reg.—Regular; Susp.—Suspension.

Dated: March 29, 2019.

Katherine B. Fox,

Assistant Administrator for Mitigation, Federal Insurance and Mitigation Administration—FEMA Resilience, Department of Homeland Security, Federal Emergency Management Agency.

[FR Doc. 2019–07359 Filed 4–12–19; 8:45 am]

BILLING CODE 9110–12–P

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 64

[WC Docket No. 13–39, FCC 18–120]

Rural Call Completion

AGENCY: Federal Communications Commission.

ACTION: Final rule; announcement of effective date.

SUMMARY: In this document, the Commission announces that the Office of Management and Budget (OMB) has approved, for a period of three years, the information collection associated with rules requiring intermediate providers to register with the Commission before offering to transmit covered voice communications that were adopted in the Commission's Rural Call Completion, Third Report and Order (*Order*). This document is consistent with the *Order,* which stated that the Commission would publish a document in the **Federal Register** announcing the effective date of those rules.

DATES: The addition of 47 CFR 64.2115, published at 83 FR 47296, September 19, 2018, is effective May 15, 2019.

FOR FURTHER INFORMATION CONTACT: Zachary Ross, Competition Policy Division, Wireline Competition Bureau, at (202) 418–1033, or email: *zachary.ross@fcc.gov.*

SUPPLEMENTARY INFORMATION: This document announces that, on January 28, 2019, OMB approved, for a period of three years, the information collection relating to the rural call completion registry requirements for intermediate providers contained in the Commission's *Order,* FCC 18–120, published at 83 FR 47296, September 19, 2018. The OMB Control Number is 3060–1259. The Commission publishes this document as an announcement of the effective date of the rules. If you have any comments on the burden estimates listed below, or how the Commission can improve the collections and reduce any burdens caused thereby, please contact Nicole Ongele, Federal Communications Commission, Room 1–A620, 445 12th Street SW, Washington, DC 20554. Please include the OMB Control Number, 3060–1259, in your correspondence. The Commission will also accept your comments via email at *PRA@fcc.gov.* To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, audio format), send an email to *fcc504@fcc.gov* or call the Consumer and Governmental Affairs Bureau at (202) 418–0530 (voice), (202) 418–0432 (TTY).

Synopsis

As required by the Paperwork Reduction Act of 1995 (44 U.S.C. 3507), the FCC is notifying the public that it received final OMB approval on January 28, 2019, for the information collection requirements contained in the modifications to the Commission's rules in 47 CFR part 64. Under 5 CFR part 1320, an agency may not conduct or sponsor a collection of information unless it displays a current, valid OMB Control Number.

No person shall be subject to any penalty for failing to comply with a collection of information subject to the Paperwork Reduction Act that does not display a current, valid OMB Control Number. The OMB Control Number is 3060–1259.

The foregoing notice is required by the Paperwork Reduction Act of 1995, Public Law 104–13, October 1, 1995, and 44 U.S.C. 3507.

The total annual reporting burdens and costs for the respondents are as follows:

OMB Control Number: 3060–1259.

OMB Approval Date: January 28, 2019.

OMB Expiration Date: January 31, 2022.

Title: Rural Call Completion, WC Docket No. 13–39.

Form Number: N/A.

Respondents: Business or other for-profit entities.

Number of Respondents and Responses: 168 respondents; 168 responses.

Estimated Time per Response: 1 hour.

Frequency of Response: Third-party disclosure; one-time reporting requirement; on occasion reporting requirement.

Obligation to Respond: Required to obtain or retain benefits. Statutory authority for this collection is contained in sections 1, 4(i), 201(b), 202(a), 217, and 262 of the Communications Act of 1934, as amended, 47 U.S.C. 151, 154(i), 201(b), 202(a), 217, and 262.

Total Annual Burden: 168 hours.

Total Annual Cost: No Cost.

Nature and Extent of Confidentiality: The Commission is not requesting that the respondents submit confidential information to the FCC. Respondents may, however, request confidential treatment for information they believe to be confidential under 47 CFR 0.459 of the Commission's rules.

Privacy Act Impact Assessment: No impact(s).

Needs and Uses: The Improving Rural Call Quality and Reliability Act of 2017 (RCC Act), Public Law 115–129, requires the Commission to establish a registry for intermediate providers and requires intermediate providers to register with the Commission before offering to transmit covered voice communications. The information collected through this information collection will be used to implement Congress's direction to the Commission to establish an intermediate provider registry.

Federal Communications Commission.

Katura Jackson,

Federal Register Liaison Officer, Office of the Secretary.

[FR Doc. 2019–07395 Filed 4–12–19; 8:45 am]

BILLING CODE 6712–01–P

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 73

[MB Docket Nos. 18–63, 17–105; FCC 19–17]

Streamlined Reauthorization Procedures for Assigned or Transferred Television Satellite Stations; Modernization of Media Regulation Initiative

AGENCY: Federal Communications Commission.

ACTION: Final rule.

SUMMARY: In this document, the Federal Communications Commission (Commission) adopts streamlined procedures for reauthorizing television satellite stations when they are assigned or transferred. This document continues the Commission's efforts to modernize its regulations and reduce unnecessary requirements that can impede competition and innovation in the media marketplace.

DATES: This rule is effective May 15, 2019.

FOR FURTHER INFORMATION CONTACT: Julie Salovaara, Industry Analysis Division, Media Bureau, FCC, at *Julie.Salovaara@fcc.gov* or (202) 418–2330.

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's Report and Order, FCC 19–17, in MB Docket Nos. 18–63, 17–105, adopted on March 11, 2019, and released on March 12, 2019. The complete text of this document is available electronically via the search function on the FCC's Electronic Document Management System (EDOCS) web page at *https://apps.fcc.gov/edocs_public/*. The document is also available for public inspection and copying during regular business hours in the FCC Reference Information Center, 445 12th Street SW, Room CY–A257, Washington, DC 20554. To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, audio format), send an email to *fcc504@fcc.gov* or call the FCC's Consumer and Governmental Affairs Bureau at (202) 418–0530 (voice), (202) 418–0432 (TTY).

Synopsis

1. *Introduction:* In this Report and Order, the Commission adopts streamlined procedures for reauthorizing television satellite stations when such stations are assigned or transferred. The revised process will reduce the costs and burdens currently associated with transferring existing satellite stations. In a notice of proposed rulemaking (NPRM), 83 FR 15531 (April 11, 2018), the Commission proposed to streamline this reauthorization process in order to eliminate potentially needless regulatory expense and delay. In response, commenters unanimously agree that the reauthorization process is unnecessarily costly and burdensome for both the station owner and the Commission. The Commission's action to streamline this process stems from its initiative to modernize its media regulations, and it furthers those efforts by reducing unnecessary requirements that can impede competition and innovation in the media marketplace.

2. *Background:* Television satellite stations are full-power terrestrial broadcast stations authorized under part 73 of the Commission's rules. They generally retransmit some or all of the programming of another full-power television station, known as the parent station, which typically is commonly owned or operated with the satellite station. The Commission authorized television satellite stations initially in sparsely populated areas with insufficient economic bases to support full-service stations and then later in larger markets when a proposed satellite could not viably operate as a full-service station. Television satellite stations are excepted from the Commission's multiple ownership limits, most significantly the Local Television Ownership Rule. The ownership exception is set forth in Note 5 of 47 CFR 73.3555. In order for the exception to apply, a television station must obtain authorization from the Commission to operate as a satellite. If a licensee of a satellite station seeks to assign or transfer the license to a new owner that wishes to continue operating the station as a satellite, the Commission's current procedures require the applicants to the transaction to make the same showing that is required for initial satellite authorization. This showing is required in response to a question concerning compliance with the Commission's multiple ownership rules at Application for Consent to Assignment of Broadcast Station Construction Permit or License, FCC Form 314, Section III, Question 6.b., and at Application for Consent to Transfer Control of Entity Holding Broadcast Station Construction Permit or License, FCC Form 315, Section IV, Question 8.b.

3. In 1991, the Commission revised the standards for television stations seeking to obtain satellite status and adopted a rebuttable presumption that stations would qualify for satellite status if: (1) There was no ''City Grade'' contour overlap between the parent and the satellite station; (2) the satellite station served an underserved area; and (3) no alternative operator was ready and able to construct or to purchase and operate the satellite station as a full-service station. The Commission established detailed evidentiary standards for meeting the second and third criteria. If an applicant did not qualify for the presumption, the Commission evaluated the proposal on an ad hoc basis and granted the application if there were compelling circumstances warranting approval. The Commission stipulated that owners of authorized satellite stations seeking to assign or transfer the station were required to demonstrate that the conditions under which the station had been accorded satellite status continued to exist at the time of the assignment or transfer.

4. The transition to digital television service in 2009 rendered ineffectual the first prong of the Commission's presumptive standard as there is no precise digital counterpart to a station's analog City Grade contour. Accordingly, in its 2010/2014 media ownership review, the Commission clarified that, consistent with case law developed after the transition, it would evaluate all requests for new and continued satellite status on an ad hoc basis. As a practical matter, the second and third prongs of the Commission's presumptive standard continued to serve as guidelines under the ad hoc review. This shift in approach did not change the burden of proof for applicants seeking either an initial satellite station authorization or the continuation of existing satellite status in the transfer or assignment context.

5. In May 2017, the Commission launched an initiative to review its media regulations and eliminate or modify rules that are outdated, unnecessary, or unduly burdensome. That review prompted the suggestion from broadcasters that the Commission streamline the process for demonstrating the continued eligibility of a television satellite station in connection with an assignment or transfer of such a station. Based on those suggestions, the Commission proposed to revise the steps required for

reauthorization of satellite status in the context of assignments and transfers and sought comment on all aspects of its proposal. Several broadcasters filed supporting comments, in which they assert that a streamlined process would reduce unnecessary costs and burdens for broadcasters, conserve Commission resources, and benefit consumers in underserved areas by encouraging investment in satellite stations. Although the Commission contemplated limiting its proposal to satellite stations sold in combination with their previously approved parent stations, commenters argue that any revised procedures also should apply when the assignment or transfer results in the satellite station combining with a different parent station. No comments were filed opposing the Commission's proposal to streamline the reauthorization process.

6. *Discussion:* We adopt streamlined procedures for reauthorizing satellite status when the license of a television satellite station is assigned or transferred. Specifically, we allow the applicants to the transaction to use streamlined procedures in those situations where there has been no material change in the circumstances that warranted the grant of a station's existing authorization and upon submission of a complete copy of the most recent written Commission decision granting the satellite exception. For reasons explained below, we allow the applicants to use these streamlined procedures regardless of whether the satellite station that is the subject of the assignment or transfer application maintains the same parent station or becomes associated with a different parent station.

7. This streamlined process will avoid the unnecessary expenditure of resources by both applicants and the Commission in situations where the facts and circumstances surrounding the station have not changed materially. The record demonstrates that the evidentiary showings currently required in connection with satellite station reauthorization often involve time and expense for both applicants and Commission staff. Commenters attest that it can cost several thousand dollars and many man-hours to prepare a reauthorization request, which typically can involve the services of lawyers, economists, engineers, and/or brokers. We conclude that these regulatory burdens are unwarranted in the absence of material change. Indeed, the Commission has no record of having ever denied a reauthorization request. We note further that declining populations in many rural areas make it likely that most satellite stations will continue to meet the reauthorization criteria. The revisions we adopt will reduce the burden on applicants but at the same time will not alter or limit the public's opportunity to object to a reauthorization request, as the procedures for doing so will remain unchanged.

8. Notably, no commenter has presented any argument or evidence suggesting that our action will harm the public interest or contravene any Commission policy goals. To the contrary, the record enumerates several likely public interest benefits that should produce a positive outcome for broadcasters, consumers, and the Commission. The cost-savings to broadcasters will reduce their regulatory expenses and allow them to invest their resources more productively. In addition, easing the transfer of satellite stations, and thereby promoting their viability, will benefit consumers in remote and underserved areas who are beyond the reach of the parent station's signal. Finally, a streamlined review process will enable the Commission to allocate its own resources more efficiently.

9. As proposed in the NPRM, we permit applicants to a transaction involving a satellite station to avail themselves of our streamlined reauthorization procedures if they satisfy two conditions. First, the assignment or transfer application must include a certification by both parties to the transaction that the underlying circumstances upon which the Commission relied in granting the current satellite authorization have not changed materially since the issuance of the most recent satellite authorization. Second, the assignment or transfer application must include a complete copy of the most recent written Commission decision (*e.g.,* Letter Order) granting the satellite exception. If the applicants cannot meet one of these conditions because there has a been a material change in circumstances or because they cannot locate the Commission's most recent written decision, then the streamlined procedures will not apply, and the applicants may apply for reauthorization in the same way as before with evidentiary showings that meet our ad hoc review criteria. If the Commission has issued a written satellite decision but the decision does not specify the facts and circumstances surrounding the grant or does not provide sufficient information from which to discern the Commission's basis for the grant, then the applicants should submit a standard reauthorization request instead of a streamlined request. The applicants may not avail themselves of the new streamlined procedures if the Commission did not identify in sufficient detail the facts and circumstances upon which it relied in approving the existing satellite exception because the constancy of those facts and circumstances would not be able to be certified or verified.

10. Procedurally, applicants may submit the required materials—both their certification and copy of the Commission's most recent written decision granting the previous satellite exception—as an exhibit to the relevant Commission form and in particular the question on the form that pertains to compliance with the Commission's multiple ownership rules (*i.e.,* Application for Consent to Assignment of Broadcast Station Construction Permit or License, FCC Form 314, Section III, Question 6.b., or Application for Consent to Transfer Control of Entity Holding Broadcast Station Construction Permit or License, FCC Form 315, Section IV, Question 8.b.) The certification, for which both parties will be accountable, may entail a general statement that there has been no material change in the underlying circumstances upon which the Commission relied in granting the satellite station's most recent satellite exception. We do not require applicants to attest to a set of more specific facts as the certification, by its very terms, encapsulates the facts and circumstances existing at the time of the prior grant of the satellite exception and avows that those facts remain true at the time of assignment or transfer. We emphasize, however, that materiality certifications should be informed by the specific factors relied upon by the applicants and the Commission in the prior grant. In addition, applicants are welcome to add any explanatory details they consider helpful.

11. Furthermore, we decline to restrict the term ''material change'' to specific, pre-defined situations. In particular, we reject the suggestion that the Commission consider all changes to be non-material except when: (1) A satellite station seeks to modify its facilities voluntarily such that its service contour would exceed 20 percent of the prior overlap with the parent station; (2) the seller has received a bona fide offer within the preceding three years to purchase and operate the satellite as a standalone station; or (3) information submitted to support an alternative showing has changed fundamentally. We fear such an approach might not be appropriate for

all reauthorization requests. We believe that the circumstances of each case should guide the determination of whether there has been a material change in the underlying circumstances upon which the Commission originally granted the existing satellite authorization.

12. We conclude that requiring applicants to certify that no material changes have occurred and to attach the Commission's most recent written satellite authorization will provide sufficient information to allow Commission staff to determine if continued satellite status is appropriate and to enable interested parties to decide whether to object to a reauthorization request. Commission staff can ask the applicants to provide additional information if needed to reach a finding. As we explained in the NPRM, objections may be filed as part of the existing petition to deny and informal comment process applicable to all proposed license assignments and transfers of control. The applicants will have the opportunity to respond to an objection within the normal pleading cycle, and the Commission then will have a record upon which to make a determination. If an objection is filed, the Commission or its staff will issue a written reauthorization decision explaining its reasoning. Absent an objection, and if the Commission approves the transaction simply by issuing an FCC Form 732 rather than by rendering a letter decision, the Commission will not issue a separate written ruling addressing the reauthorization request. In those cases, we will follow commenters' suggestion to memorialize the reauthorization decision in the ''Special Conditions'' section of the FCC Form 732 approving the transaction. We will include a brief statement that the reauthorization grant is based upon both parties' certification and may add any necessary or helpful explanatory details, such as a cross-reference to the prior grant of the satellite exception upon which the applicants rely. When satellite stations that have been reauthorized in this manner are assigned or transferred in the future, the applicants to those transactions should attach the most recent written decision the Commission or staff issued that specifies the operative facts and circumstances that provided the basis for approval of satellite status. The applicants also should provide the dates of any intervening Commission reauthorizations memorialized on FCC Form 732 approvals, but the FCC Form 732 itself shall not constitute a decision upon which an applicant may rely in requesting streamlined reauthorization. If there has been no material change in the underlying circumstances supporting the Commission's or staff's most recent written decision, then that decision remains relevant and useful even if it also was used to support previous reauthorizations and may be many years old.

13. We adopt these streamlined procedures regardless of whether the identity of the parent station changes as a result of the transaction. In the NPRM, we sought comment on whether we should restrict any new streamlined reauthorization procedures to those transactions that involve the assignment or transfer of control of a satellite station in combination with its previously approved parent station. Commenters contend that our proposed streamlined procedures also should apply when the satellite station combines with a different parent station as a result of the transaction. They assert that the Commission determines satellite designations based on the conditions and characteristics related to the satellite station, not the parent station, and so the identity of the parent station should not affect the reauthorization decision. The Commission never has denied a satellite reauthorization request when the underlying transaction resulted in a different parent station, and interested parties would be able to raise any concerns about a proposed new combination. Our ad hoc review of reauthorization requests is guided by considerations of whether the satellite station serves an underserved area and whether it could survive as a standalone station. Because a reauthorization review focuses on the health and viability of the satellite station and provides ample opportunity for public comment, we agree with commenters that our streamlined procedures should apply regardless of whether the parent station changes or stays the same post-transaction.

14. We conclude that this action to streamline the reauthorization process for television satellite stations will benefit broadcasters, consumers, and the Commission. Further, removing unnecessary constraints on the transferability of satellite stations is consistent with our efforts to modernize our regulations.

Procedural Matters

15. *Final Regulatory Flexibility Act Certification.* The Regulatory Flexibility Act of 1980, 5 U.S.C. 604, as amended (RFA), requires that a final regulatory flexibility analysis be prepared for notice and comment rulemaking proceedings, unless the agency certifies that ''the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities.'' See 5 U.S.C. 605(b). The RFA generally defines the term ''small entity'' as having the same meaning as the terms ''small business,'' ''small organization,'' and ''small governmental jurisdiction.'' See 5 U.S.C. 601(6). In addition, the term ''small business'' has the same meaning as the term ''small business concern'' under the Small Business Act. See 5 U.S.C. 601(3). A ''small business concern'' is one which: (1) Is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).

16. In this Report and Order, the Commission adopts streamlined procedures for reauthorizing television satellite stations when they are assigned or transferred. The revisions stem from an initiative the Commission launched in May 2017 to modernize its media regulations. Commenters in the proceeding assert that the Commission should streamline the process for demonstrating that a television satellite station remains eligible for satellite status in connection with an assignment or transfer of the station because, they contend, the current process is lengthy, costly, unnecessary, and serves no rational purpose. Indeed, the time and expense of filing satellite reauthorization requests may discourage potential purchasers of satellite stations, which typically are in rural and economically depressed areas and often in need of investment. The revised procedures are intended to reduce unnecessary regulation and regulatory burdens that can impede competition and innovation in the media marketplace.

17. Specifically, if there has been no material change in the underlying circumstances since the Commission granted the current satellite authorization, the parties to the proposed transaction can certify to that fact instead of having to make the same type of showing required for the station's initial satellite authorization. In addition, a complete copy of the written Commission decision granting the current satellite exception must be provided with the assignment or transfer application.

18. As transactions involving television satellite stations usually comprise a very small percentage of the total number of television transactions processed by the Commission and originate from a similarly small segment of the overall industry, the number of

small entities impacted will not be substantial for RFA purposes. Therefore, the Commission certifies that the rule changes adopted in this Report and Order will not have a significant economic impact on a substantial number of small entities. The Commission will send a copy of the Report and Order, including a copy of this Final Regulatory Flexibility Act Certification, to the Chief Counsel for Advocacy of the SBA. This final certification also will be published in the **Federal Register**. See 5 U.S.C. 605(b).

19. *Paperwork Reduction Act.* The Office of Management and Budget (OMB) approved non-substantive changes for the information collection requirements contained in this rulemaking on March 28, 2019 under OMB control number 3060–0031. See Paperwork Reduction Act of 1995, Public Law 104–13. In addition, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107–198, we previously sought specific comment on how we might ''further reduce the information collection burden for small business concerns with fewer than 25 employees.'' See 44 U.S.C. 3506(c)(4).

20. *Congressional Review Act.* The Commission will send a copy of this Report and Order to Congress and the Government Accountability Office pursuant to the Congressional Review Act. See 5 U.S.C. 801(a)(1)(A).

21. *Ordering Clauses:* Accordingly, *it is ordered* that, pursuant to the authority found in sections 1, 4(i), 4(j), 303(r), 309, and 310 of the Communications Act of 1934, as amended, 47 U.S.C. 151, 154(i), 154(j), 303(r), 309, and 310, this Report and Order *is adopted*.

22. *It is further ordered* that this Report and Order, including the revisions to title 47 of the Code of Federal Regulations shown below, *shall be effective 30 days after publication in the* ***Federal Register***, which shall be preceded by OMB approval of the modified information collection requirements adopted herein.

23. *It is further ordered* that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, *shall send* a copy of this Report and Order, including the Final Regulatory Flexibility Act Certification, to the Chief Counsel for Advocacy of the Small Business Administration.

24. *It is further ordered* that the Commission *shall send* a copy of this Report and Order in a report to be sent to Congress and the Government Accountability Office pursuant to the Congressional Review Act, see 5 U.S.C. 801(a)(1)(A).

25. *It is further ordered* that, should no petitions for reconsideration or petitions for judicial review be timely filed, MB Docket No. 18–63 shall be *terminated* and its docket closed.

List of Subjects 47 CFR Part 73

Radio, Reporting and recordkeeping requirements, Television.

Federal Communications Commission.

Katura Jackson,

Federal Register Liaison Officer, Office of the Secretary.

Final Rules

For the reasons discussed in the preamble, the Federal Communications Commission amends 47 CFR part 73 as follows:

PART 73—RADIO BROADCAST SERVICES

■ 1. The authority citation for part 73 continues to read as follows:

Authority: 47 U.S.C. 154, 155, 301, 303, 307, 309, 310, 334, 336, 339.

§ 73.3555 [Amended]

■ 2. Amend § 73.3555 in Note 5 by adding the phrase ''as further explained by the Report and Order in MB Docket No. 18–63, FCC 19–17, (released March 12, 2019),'' after the phrase ''(released July 8, 1991),''.

[FR Doc. 2019–07394 Filed 4–12–19; 8:45 am]

BILLING CODE 6712–01–P

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

48 CFR Parts 2402, 2416, 2437, 2442, and 2452

[Docket No. FR–6041–F–02]

RIN 2501–AD85

HUD Acquisition Regulation (HUDAR)

AGENCY: Office of the Chief Procurement Officer, HUD.

ACTION: Final rule.

SUMMARY: This rule amends various provisions of the HUD Acquisition Regulation (HUDAR). These provisions include incorporation of several clauses and associated additions to the HUDAR matrix, replacement of references to Government Technical Representatives (GTRs) with references to Contracting Officer's Representatives (CORs), codification of deviations approved by HUD's Chief Procurement Officer (CPO) and minor corrections to clauses, provisions, and the HUDAR matrix. This final rule follows a proposed rule published on April 9, 2018 and implements the proposed rule without change except to remove obsolete definitions.

DATES: *Effective date:* May 15, 2019.

FOR FURTHER INFORMATION CONTACT: Dr. Akinsola A. Ajayi, Assistant Chief Procurement Officer for Policy, Systems and Risk Management, Office of the Chief Procurement Officer, Department of Housing and Urban Development, 451 7th Street SW, Washington, DC 20410; telephone number 202–708–0294 (this is not a toll-free number), fax number 202–708–8912. Persons with hearing or speech impairments may access Dr. Ajayi's telephone number via TTY by calling the toll-free Federal Relay Service at 800–877–8339.

SUPPLEMENTARY INFORMATION:

I. Background

The HUDAR is codified at title 48, chapter 24 of the Code of Federal Regulations. HUD revises the HUDAR from time to time. The revision prior to this one was published on March 15, 2016 (81 FR 13747).

This final rule follows a proposed rule that was published at 83 FR 15101 (April 9, 2018). The rule proposed, among other things, a change in terminology from ''Government Technical Representative'' to ''Contracting Officer's Representative,'' abbreviated COR. The rule also proposed to codify previously used agency-specific clauses entitled ''Level of Effort and Fee Payment'' and ''Labor Categories, Requirements, and Estimated Level of Effort.'' A clause was proposed to address access to controlled unclassified information, which is defined as any information the disclosure of which would harm the national interest, the conduct of Federal programs, or the privacy to which individuals are entitled under the Privacy Act; the clause requires offerors with whom the government shares this kind of information to execute a nondisclosure agreement. The proposed rule also included a clause requiring contractors to report on the status of Personal Identity Verification (PIV) cards on a quarterly basis. A number of other minor revisions were made. Please refer to the proposed rule (83 FR 15101) for details.

II. Public Comments

The public comment period opened on publication and closed on June 8, 2018. No relevant public comments were received.

III. This Final Rule

At this final rule stage, HUD adopts the proposed rule without change.

IV. Findings and Certifications

Paperwork Reduction Act Statement

The information collection requirements contained in this rule have been approved by the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520) and assigned OMB Control Number 2535–0091. In accordance with the Paperwork Reduction Act, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the collection displays a currently valid OMB control number.

Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (2 U.S.C. 1531–1538) (UMRA) establishes requirements for Federal agencies to assess the effects of their regulatory actions on state, local, and tribal governments and the private sector. This rule does not impose any Federal mandate on any state, local, or tribal government or the private sector within the meaning of UMRA.

Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) (5 U.S.C. 601 *et seq.*) generally requires an agency to conduct a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements, unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. This final rule makes technical changes to existing contracting procedures and does not make any major changes that would significantly impact businesses. Accordingly, the undersigned certifies that this rule will not have a significant economic impact on a substantial number of small entities. Notwithstanding HUD's determination that this rule will not have a significant economic impact on a substantial number of small entities, HUD specifically invites comments regarding less burdensome alternatives to this rule that will meet HUD's objectives as described in this preamble.

Environmental Impact

This final rule does not direct, provide for assistance or loan and mortgage insurance for, or otherwise govern or regulate real property acquisition, disposition, leasing, rehabilitation, alteration, demolition, or new construction, or establish, revise, or provide for standards for construction or construction materials, manufactured housing, or occupancy. Accordingly, under 24 CFR 50.19(c)(1), this final rule is categorically excluded from environmental review under the National Environmental Policy Act of 1969 (42 U.S.C. 4321).

Executive Order 13132, Federalism

Executive Order 13132 (entitled ''Federalism'') prohibits an agency from publishing any rule that has federalism implications if the rule imposes substantial direct compliance costs on state and local governments and is not required by statute, or the rule preempts state law, unless the agency meets the consultation and funding requirements of section 6 of the Executive Order. This final rule would not have federalism implications and would not impose substantial direct compliance costs on state and local governments or preempt state law within the meaning of the Executive Order.

List of Subjects in 48 CFR Parts 2402, 2416, 2437, 2442, and 2452

Government procurement.

Accordingly, for the reasons discussed in the preamble, HUD amends 48 CFR parts 2402, 2416, 2437, 2442, and 2452 as follows:

PART 2402—DEFINITIONS OF WORDS AND TERMS

■ 1. The authority citation for part 2402 continues to read as follows:

Authority: 40 U.S.C. 121(c); 42 U.S.C. 3535(d).

2402.101 [Amended]

■ 2. Amend 2402.101 by removing the definitions of ''Government Technical Monitor (GTM)'' and ''Government Technical Representative (GTR)''.

PART 2416—TYPES OF CONTRACTS

■ 3. The authority citation for part 2416 continues to read as follows:

Authority: 40 U.S.C. 121(c); 41 U.S.C. 253; 42 U.S.C. 3535(d).

■ 4. Amend 2416.506–70 by revising paragraph (c) and adding paragraphs (e) and (f) to read as follows:

2416.506–70 Solicitation provisions and contract clauses.

* * * * *

(c) *Estimated quantities—requirements contract.* The Contracting Officer shall insert the clause at 2452.216–77, Estimated Quantities—Requirements Contract, in all solicitations for requirements contracts.

* * * * *

(e) *Level of effort and fee payment.* The Contracting Officer shall insert clause 2452.216–81, Level of Effort and Fee Payment, in all level-of-effort term contracts.

(f) *Labor categories, requirements, and estimated level of effort.* The Contracting Officer shall insert provision 2452.216–82, Labor Categories, Requirements, and Estimated Level of Effort, in all level-of-effort solicitations. Contracting Officer's Representatives will provide the labor descriptions and estimated number of hours. Contracting Officers will obtain wage rate determinations for any classifications covered by the Service Contract Act.

PART 2437—SERVICE CONTRACTING

■ 5. The authority citation for part 2437 continues to read as follows:

Authority: 40 U.S.C. 121(c); 42 U.S.C. 3535(d).

■ 6. Amend 2437.110 by adding paragraphs (e)(7) and (8) to read as follows:

2437.110 Solicitation provisions and contract clauses.

(e) * * *

(7) The Contracting Officer shall insert provision 2452.237–82, Access to Controlled Unclassified Information (CUI), in Section L of solicitations when controlled unclassified information (''CUI''), as defined in the provision, will be provided to potential offerors for the purpose of preparing offers.

(8) The Contracting Officer shall insert clause 2452.237–83 in Section H, Access to Controlled Unclassified Information (CUI), of solicitations and contracts under which contractor and/or subcontractor employees will be granted access to controlled unclassified information (CUI) as defined in the clause.

PART 2442—CONTRACT ADMINISTRATION AND AUDIT SERVICES

■ 7. The authority citation for part 2442 continues to read as follows:

Authority: 40 U.S.C. 121(c); 42 U.S.C. 3535(d).

■ 8. Revise 2442.1107 to read as follows:

2442.1107 Contract clause.

(a) For purposes of clause 2452.242–71, the term ''contract'' shall also include task orders and purchase orders.

(b) The Contracting Officer shall insert a clause substantially the same as

the clause at 2452.242–71, Contract Management System, in solicitations and contracts when all of the following conditions apply:

(1) A contract exceeds $1,000,000, including all options; and

(2) The contract is a completion type that requires the delivery of an overall end deliverable or solution (*e.g.,* evaluation, study, model).

(c) To the extent the clause will not normally be included in commercial contracts meeting the requirements stated in paragraphs (a) and (b) of this section, and in instances where the clause is to be incorporated, pursuant to FAR 12.301(f), a waiver to the standard commercial requirements, to include the clause, is not required.

(d) The Contracting Officer shall use the basic clause for cost type, labor-hour, and time and materials contracts for the services described in paragraph (b) of this section. The clause shall be used with its alternate for fixed-price type contracts for the services described in paragraph (b). The Contracting Officer may elect to incorporate the clause into contracts below the established threshold.

(e) The clause is not applicable to contracts that only expend a level of effort without a completion deliverable/product due, *e.g.,* temporary services.

(f) This clause is not applicable to Information Technology service contracts being managed through Earned Value Management techniques that require reporting of Earned Value Management.

PART 2452—SOLICITATION PROVISIONS AND CONTRACT CLAUSES

■ 9. The authority citation for part 2452 continues to read as follows:

Authority: 40 U.S.C. 121(c); 42 U.S.C. 3535(d).

Subpart 2452.2—Texts of Provisions and Clauses

■ 10. Revise 2452.203–70 to read as follows:

2452.203–70 Prohibition against the use of Federal employees.

As prescribed in 2403.670, insert the following clause in solicitations and contracts:

PROHIBITION AGAINST THE USE OF FEDERAL EMPLOYEES (APR 2019)

In accordance with Federal Acquisition Regulation 3.601, contracts are not to be awarded to Federal employees or a business concern or other organization owned or substantially owned or controlled by one or more Federal employees. For the purposes of this contract, this prohibition against the use of Federal employees includes any work performed by the Contractor or any of its employees, subcontractors, or consultants.

(End of clause)

■ 11. Revise 2452.208–71 to read as follows:

2452.208–71 Reproduction of reports.

As prescribed in 2408.802–70, insert the following clause in solicitations and contracts where the Contractor is required to produce, as an end product, publications or other written materials:

REPRODUCTION OF REPORTS (APR 2019)

In accordance with Title I of the Government Printing and Binding Regulations, printing of reports, data or other written material, if required herein, is authorized provided that the material produced does not exceed 5,000 production units of any page and that items consisting of multiple pages do not exceed 25,000 production units in aggregate. The aggregate number of production units is determined by multiplying the number of pages by the number of copies. A production unit is one sheet, size 8.5 by 11 inches or less, printed on one side only and in one color. All copy preparation to produce camera-ready copy for reproduction must be set by methods other than hot metal typesetting. The reports should be produced by methods employing stencils, masters and plates which are to be used on single unit duplicating equipment no larger than 11 by 17 inches with a maximum image of 10¾ by 14¼ inches and are prepared by methods or devices that do not utilize reusable contact negatives and/or positives prepared with a camera requiring a darkroom. All reproducibles (camera-ready copies for reproduction by photo offset methods) shall become the property of the Government and shall be delivered to the Government with the report, data, or other written materials.

(End of clause)

■ 12. Amend 2452.215–70 by revising Alternate II to read as follows:

2452.215–70 Proposal content.

* * * * *

Alternate II

As prescribed in 2415.209(a), add the following paragraph (e) when the size of any proposal Part I or Part II will be limited:

PROPOSAL CONTENT ALTERNATE II (APR 2019)

(e) *Size limits of Parts I and II.* (1) Offerors shall limit submissions of Parts I and II of their initial proposals to the page limitations identified in the Instructions to Offerors. Offerors are cautioned that, if any Part of their proposal exceeds the stipulated limits for that Part, the Government will evaluate only the information contained in the pages up through the permitted number. Pages beyond that limit will not be evaluated.

(2) A page shall consist of one side of a single sheet of 8.5″ x 11″ paper, single-spaced, using not smaller than 12-point type font, and having margins at the top, bottom, and sides of the page of no less than one inch in width.

(3) Any exemptions from this limitation are stipulated under the Instructions to Offerors.

(4) Offerors are encouraged to use recycled paper and to use both sides of the paper (see the FAR clause at 52.204–4).

(End of Provision)

■ 13. Revise 2452.216–80 to read as follows:

2452.216–80 Estimated cost and fixed-fee.

As prescribed in 2416.307(b), insert the following clause:

ESTIMATED COST AND FIXED–FEE (APR 2019)

(a) It is estimated that the total cost to the Government for full performance of this contract will be $_____[Contracting Officer insert amount], of which $_____[Contracting Officer insert amount] represents the estimated reimbursable costs, and $_____ [Contracting Officer insert amount] represents the fixed fee.

(b) If this contract is incrementally funded, the following shall apply:

(1) Total funds currently available for payment and allotted to this contract are $_____[Contracting Officer insert amount], of which $_____[Contracting Officer insert amount] represents the limitation for reimbursable costs and $ _____[Contracting Officer insert amount] represents the prorated amount of the fixed fee (see also the clause at FAR 52.232–22, ''Limitation of Funds'' herein).

(2) If and when the contract is fully funded, as specified in paragraph (a) of this clause, the clause at FAR 52.232–20, ''Limitation of Cost,'' herein, shall become applicable.

(3) The Contracting Officer may allot additional funds to the contract up to the total specified in paragraph (a) of this clause without the concurrence of the contractor.

(End of clause)

■ 14. Add 2452.216–81 to read as follows:

2452.216–81 Level of effort and fee payment.

As prescribed in 2416.506–70(f), insert the following clause in all level-of-effort term contracts:

LEVEL OF EFFORT AND FEE PAYMENT (APR 2019)

(a) The total level of effort to be provided under this contract is _____hours. The Contractor shall be reimbursed for the actual labor costs incurred.

(b) The contractor shall be paid the fixed fee specified in B.____, Estimated Cost and Fixed Fee, herein, on a prorated basis in proportion to the percentage of the level of effort (LOE) performed at the time of billing in accordance with the following formula:

(Number of acceptable hours delivered) divided by (Total hours in level of effort) × (Total fixed fee) = Fee payment

(*e.g.,* 1,000 hours delivered/10,000 hours (LOE) × $15,000 = $1,500)

(c) In no event shall the amount of fee paid under the contract exceed the total fixed fee specified in B.[ ], Estimated Cost and Fixed Fee, herein.

(End of clause)

■ 15. Add 2452.216–82 to read as follows:

2452.216–82 Labor categories, requirements, and estimated level of effort.

As prescribed in 2416.506–70(g), insert the following provision in all level-of-effort solicitations:

LABOR CATEGORIES, REQUIREMENTS, AND ESTIMATED LEVEL OF EFFORT (APR 2019)

(a) The Government anticipates that the following categories of labor shall be necessary to provide the services required by any contract resulting from this solicitation. Offerors must provide evidence that proposed staff meet the technical requirements for each category.

(1) [Insert labor titles and technical requirements]

(b) To assist offerors in the preparation of proposals, the Government estimates that the following levels of effort (staff hours) will be necessary to provide the services required by any contract resulting from this solicitation. These estimates are not binding on the Government. Offerors must break out their proposed costs by labor category. The contract performance period is intended to be for a total of [ ] months (a base period of [ ] months with [ ] [insert number of options] [ ] [insert number of months per option]-month option periods. The actual duration of the base period may be different. Offerors may propose labor at different rates per contract period.

STAFF HOURS

Labor category	Base period	1st option period	2nd option period	3rd option period	4th option period
[Insert titles and estimated number of hours per category]					

(End of provision)

■ 16. Revise 2452.219–72 to read as follows:

2452.219–72 Section 8(a) direct awards.

As prescribed in 2419.811–3(f), insert the following clause:

SECTION 8(A) DIRECT AWARD (APR 2019)

(a) This contract is issued as a direct award between the Department of Housing and Urban Development (HUD) and the 8(a) Contractor pursuant to a Partnership Agreement (Agreement) between the Small Business Administration (SBA) and HUD. The SBA retains responsibility for 8(a) certification, 8(a) eligibility determinations and related issues, and providing counseling and assistance to the 8(a) contractor under the 8(a) program. The cognizant SBA district office is:

[To be completed by Contracting Officer at time of award].

(b) SBA is the prime contractor and _____[insert name of 8(a) contractor] is the subcontractor under this contract. Under the terms of the Agreement, HUD is responsible for administering the contract and taking any action on behalf of the Government under the terms and conditions of the contract. However, the HUD Contracting Officer shall give advance notice to the SBA before issuing a final notice terminating performance, either in whole or in part, under the contract. The HUD Contracting Officer shall also coordinate with SBA prior to processing any novation agreement(s). HUD may assign contract administration functions to a contract administration office.

(c) _____[insert name of 8(a) contractor] agrees:

(1) To notify the HUD Contracting Officer, simultaneously with its notification to SBA (as required by SBA's 8(a) regulations), when the owner or owners upon whom 8(a) eligibility is based, plan to relinquish ownership or control of the concern. Consistent with 15 U.S.C. 637(a)(21), transfer of ownership or control shall result in termination of the contract for convenience unless SBA waives the requirement for termination prior to the actual relinquishing of ownership or control.

(2) To adhere to the requirements of FAR 52.219–14, ''Limitations on Subcontracting.''

(End of Clause)

■ 17. Revise Alternate II of 2452.232–70 to read as follows:

2452.232–70 Payment schedule and invoice submission (Fixed-Price).

* * * * *

Alternate II (APR 2019)

As prescribed in HUDAR Section 2432.908(c)(2), replace paragraphs (b)(1) and (2) of the HUDAR Clause 2452.232–70 Payment Schedule and Invoice Submission (Fixed-price) with the following Alternate II language in all fixed-price solicitations and contracts when requiring invoices to be submitted electronically to the Department of Treasury's Bureau of Fiscal Services Invoice Processing Platform (IPP) system:

(b) Submission of invoices. (1) The Contractor shall obtain access and submit invoices to the Department of Treasury Bureau of Fiscal Services' Invoice Platform Processing System via the Web at URL: *https://arc.publicdebt.treas.gov/ipp/fsippqrg.htm* in accordance with the instructions on the website. To constitute a proper invoice, the invoice must include all items required by the FAR clause at 52.232–25, ''Prompt Payment.''

(2) To assist the Government in making timely payments, the Contractor is also requested to include on each invoice the appropriation number shown on the contract award document (*e.g.,* block 14 of the Standard Form (SF) 26, block 21 of the SF–33, or block 25 of the SF–1449).

(End of Alternate II)

■ 18. Revise 2452.232–71 to read as follows:

2452.232–71 Voucher submission (cost-reimbursement, time-and-materials, and labor hour).

As prescribed in HUDAR Section 2432.908(c)(3), insert the following clause in all cost-reimbursable, time-and-materials, and labor-hour solicitations and contracts where vouchering and payments will NOT be made through the Department of Treasury's Bureau of Fiscal Services Invoice Processing Platform (IPP) system:

2452.232–71 VOUCHER SUBMISSION (COST-REIMBURSEMENT, TIME-AND-MATERIALS, AND LABOR-HOUR) (APR 2019)

(a) *Voucher submission.* (1) The Contractor shall submit _____ [Contracting Officer insert billing period, *e.g.,* monthly], an original and two copies of each voucher. In addition to the items required by the clause at FAR 52.232–25, Prompt Payment, the voucher shall show the elements of cost for the billing period and the cumulative costs to date. The Contractor shall submit all vouchers, except for the final voucher, as follows: Original to the payment office and one copy each to the Contracting Officer and the Contracting Officer's Representative (COR) identified in the contract. The Contractor shall submit all copies of the final voucher to the Contracting Officer.

(2) To assist the Government in making timely payments, the Contractor is requested to include on each voucher the applicable appropriation number(s) shown on the award or subsequent modification document (*e.g.,* block 14 of the Standard Form (SF) 26, or block 21 of the SF–33). The Contractor is also requested to clearly indicate on the mailing envelope that a payment voucher is enclosed.

(b) *Contractor remittance information.* (1) The Contractor shall provide the payment office with all information required by other payment clauses contained in this contract.

(2) The Contractor shall submit all necessary supporting documentation with vouchers that adequately demonstrate that costs claimed (1) have been incurred (including time sheets from the prime and subcontractor's automated or manual time tracking records and paid invoices for materials acquired), (2) reflect that they are allocable to the contract tasks, and (3) comply with cost principles in the Federal

Acquisition Regulation and HUD Acquisition Regulation. The Contracting Officer may disallow all or part of a claimed cost that is inadequately supported.

(3) For time-and-materials and labor-hour contracts, the Contractor shall aggregate vouchered costs by the individual task for which the costs were incurred and clearly identify the task or job.

(c) *Final payment.* The final payment shall not be made until the Contracting Officer has certified that the Contractor has complied with all terms of the contract.

(End of clause)

Alternate I (APR 2019)

As prescribed in HUDAR Section 2432.908(c)(3), replace paragraphs (a)(1) and (2) with the following Alternate I paragraphs to HUDAR Clause 2452.232–71, Voucher Submission (Cost Reimbursement, Time-and-Materials, and Labor Hour) in time and material, cost-reimbursable and labor hour solicitations and contracts other than performance-based under which performance-based payments will be used and where invoices are to be submitted electronically by email, but will not be paid through the Department of Treasury's Bureau of Fiscal Services Invoice Processing Platform (IPP) system.

(a) *Voucher submission.* (1) The Contractor shall submit vouchers electronically via email to the email addresses shown on the contract award document (*e.g.,* block 12 of the Standard Form (SF) 26, block 25 of the SF–33, or block 18a of the SF–1449) and carbon copy the Contracting Officer and the Contracting Officer's Representative (COR). In addition to the items required by the clause at FAR 52.232–25, Prompt Payment, the voucher shall show the elements of cost for the billing period and the cumulative costs to date. The Contractor shall clearly include in the Subject line of the email: VOUCHER INCLUDED; CONTRACT/ORDER #: _____, VOUCHER NUMBER _____ and CONTRACT LINE ITEM NUMBER(S) _____

(2) To assist the Government in making timely payments, the Contractor is requested to include on each voucher the applicable appropriation number(s) shown on the award or subsequent modification document (*e.g.,* block 14 of the Standard Form (SF) 26, or block 21 of the SF–33).

(End of Alternate I)

As prescribed in HUDAR Section 2432.908(c)(3), replace paragraphs (a)(1) and (2) of the HUDAR Clause 2452.232–71, Voucher Submission (Cost-Reimbursement, Time-And-Materials, And Labor Hour) with the following Alternate II language in all cost-reimbursement, time-and-materials, and labor-hour type solicitations and contracts when requiring vouchers to be submitted electronically to the Department of Treasury's Bureau of Fiscal Services Invoice Processing Platform (IPP) system.

Alternate II (APR 2019)

(a) *Voucher submission.* (1) The Contractor shall obtain access and submit invoices to the Department of Treasury Bureau of Fiscal Services' Invoice Platform Processing System via the Web at URL: *https://arc.publicdebt.treas.gov/ipp/fsippqrg.htm* in accordance with the instructions on the website. To constitute a proper voucher, in addition to the items required by the clause at FAR 52.232–25, Prompt Payment, the voucher shall show the elements of cost for the billing period and the cumulative costs to date.

(2) To assist the Government in making timely payments, the Contractor is requested to include on each voucher the applicable appropriation number(s) shown on the award or subsequent modification document (*e.g.,* block 14 of the Standard Form (SF) 26, or block 21 of the SF–33).

(End of Alternate II)

■ 19. Revise 2452.237–73 to read as follows:

2452.237–73 Conduct of work and technical guidance.

As prescribed in 2437.110(e)(2), insert the following clause in all contracts for services:

CONDUCT OF WORK AND TECHNICAL GUIDANCE (APR 2019)

(a) The Contracting Officer will provide the Contractor with the name and contact information of the Contracting Officer's Representative (COR) assigned to this contract. The COR will serve as the Contractor's liaison with the Contracting Officer with regard to the conduct of work. The Contracting Officer will notify the Contractor in writing of any change to the current COR's status or the designation of a successor COR.

(b) The COR for liaison with the Contractor as to the conduct of work is [to be inserted at time of award] or a successor designated by the Contracting Officer.

(c) The COR will provide guidance to the Contractor on the technical performance of the contract. Such guidance shall not be of a nature which:

(1) Causes the Contractor to perform work outside the statement of work or specifications of the contract;

(2) Constitutes a change as defined in FAR 52.243–1;

(3) Causes an increase or decrease in the cost of the contract;

(4) Alters the period of performance or delivery dates; or

(5) Changes any of the other express terms or conditions of the contract.

(d) The COR will issue technical guidance in writing or, if issued orally, he/she will confirm such direction in writing within five (5) calendar days after oral issuance. The COR may issue such guidance via telephone, facsimile (fax), or electronic mail.

(e) Other specific limitations [to be inserted by Contracting Officer]:

(f) The Contractor shall promptly notify the Contracting Officer whenever the Contractor believes that guidance provided by any government personnel, whether or not specifically provided pursuant to this clause, is of a nature described in paragraph (b) of this clause.

(End of clause)

■ 20. Revise 2452.237–75 to read as follows:

2452.237–75 Access to HUD facilities.

As prescribed in 2437.110(e)(3), insert the following clause in solicitations and contracts:

ACCESS TO HUD FACILITIES (APR 2019)

(a) *Definitions.* As used in this clause—

''Access'' means physical entry into and, to the extent authorized, mobility within a Government facility.

''Contract'' means any authorized contractual instrument, including, but not restricted to, task orders, purchase orders, Blanket Purchase Agreement calls, etc.

''Contractor employee'' means an employee of the prime contractor or of any subcontractor, affiliate, partner, joint venture, or team members with which the Contractor is associated. It also includes consultants engaged by any of those entities.

''Facility'' and ''Government facility'' mean buildings, including areas within buildings that are owned, leased, shared, occupied, or otherwise controlled by the Federal Government.

''NACI'' means National Agency Check with Inquiries, the minimum background investigation prescribed by the U.S. Office of Personnel Management.

''PIV Card'' means the Personal Identity Verification (PIV) Card, the Federal Government-issued identification credential (identification badge).

(b) *General.* The performance of this contract requires contractor employees to have access to HUD facilities. All such employees who do not already possess a current PIV Card acceptable to HUD shall be required to provide personal background information, undergo a background investigation (NACI or other OPM-required or approved investigation), including an FBI National Criminal History Fingerprint Check, and obtain a PIV Card prior to being permitted access to any such facility in the performance of this contract.

Unescorted access to any such facility in performance of this contract. HUD may accept a PIV Card issued by another Federal Government agency but shall not be required to do so. No contractor employee will be permitted unescorted access to a HUD facility without a proper PIV Card.

(c) *Background information.* (1) For each contractor employee subject to the requirements of this clause and not in possession of a current PIV Card acceptable to HUD, the Contractor shall submit the following properly completed forms: Electronic Standard Form (SF) 85, ''Questionnaire for Non-Sensitive Positions via e-QIP,'' completed USAccess enrollment (electronic fingerprinting) and Optional Form (OF) 306 (Items 1 through 17). Forms SF–85 and OF–306 are available from OPM's website, *http://www.opm.gov.* The electronic questionnaire is available on OPM's e-QIP site, *https://www.opm.gov/investigations/e-qip-application/.* The COR will provide all other forms that are not obtainable via the internet.

(2) The Contractor shall deliver the forms and information required in paragraph (c)(1)

of this clause to the COR as secure as possible.

(3) The information provided in accordance with paragraph (c)(1) of this clause will be used to perform a background investigation to determine the suitability of the contractor employees to have access to Government facilities. After completion of the investigation, the COR will notify the Contractor in writing when any contractor employee is determined to be unsuitable for access to a Government facility. The Contractor shall immediately remove such employee(s) from work on this contract that requires physical presence in a Government facility.

(4) Affected contractor employees who have had a Federal background investigation without a subsequent break in Federal employment or Federal contract service exceeding 2 years may be exempt from the investigation requirements of this clause subject to verification of the previous investigation. For each such employee, the Contractor shall submit the following information in lieu of the forms and information listed in paragraph (c)(1) of this clause: completed PIV and Pre-Security Form.

(d) *PIV Cards.* (1) HUD will issue a PIV Card to each contractor employee who is to be given access to HUD facilities and who does not already possess a PIV Card acceptable to HUD (see paragraph (b) of this clause). HUD will not issue the PIV Card until the contractor employee has (1) successfully cleared the FBI National Criminal History Fingerprint Check, (2) HUD has initiated the background investigation for the contractor employee, and (3) a Security Approval Notice from HUD PSD via *PSDContractorIn-box@hud.gov* has been received. Initiation is defined to mean that all background information required in paragraph (c)(1) of this clause has been delivered to HUD. The employee may not be given access prior to those three events. HUD may issue a PIV Card and grant access pending the completion of the background investigation. HUD will revoke the PIV Card and the employee's access if the background investigation process for the employee, including adjudication of the investigation results, has not been completed within 6 months after the issuance of the PIV Card.

(2) PIV Cards shall identify individuals as contractor employees. Contractor employees shall display their PIV Cards on their persons at all times while working in a HUD facility, and shall present cards for inspection upon request by HUD officials or HUD security personnel.

(3) The Contractor shall be responsible for all PIV Cards issued to the Contractor's employees and shall immediately notify the COR if any PIV Card(s) cannot be accounted for. The Contractor shall promptly return PIV Cards to HUD, as required by the FAR clause at 52.204–9. The Contractor shall notify the COR immediately whenever any contractor employee no longer has a need for his/her HUD-issued PIV Card (*e.g.,* employee terminates employment with the contractor, employee's duties no longer require access to HUD facilities). The COR will instruct the Contractor on how to return the PIV Card, and upon expiration of this contract, the COR will instruct the Contractor on how to return all HUD-issued PIV Cards not previously returned. Unless otherwise directed by the Contracting Officer, the Contractor shall not return PIV Cards to any person other than the COR.

(4) The Contractor shall submit a report to the Contracting Officer and COR no later than five (5) calendar days after the end of each calendar quarter that provides the status of each employee who is required to work in a HUD facility during the performance of the contract. At a minimum, the report shall identify the contractor and the contract number, and list for each employee the following information:

(i) Employee name;

(ii) Name of HUD facility where employee works;

(iii) Date background check submitted;

(iv) Date PIV Card issued;

(v) PIV card number;

(vi) Date employee no longer has need of the HUD PIV Card;

(vii) Date Contracting Officer and COR were notified that employee no longer had need of the HUD PIV Card; and

(viii) Date PIV Card was returned to COR.

(e) *Control of access.* HUD shall have, and exercise, complete control over granting, denying, withholding, and terminating access of contractor employees to HUD facilities. The COR will notify the Contractor immediately when HUD has determined that an employee is unsuitable or unfit to be permitted access to a HUD facility. The Contractor shall immediately notify such employee that he/she no longer has access to any HUD facility, remove the employee from any such facility that he/she may be in, and provide a suitable replacement in accordance with the requirements of this clause.

(f) *Access to HUD information systems.* If this contract requires contractor employees to have access to HUD information system(s), application(s), or information contained in such systems, the Contractor shall comply with all requirements of HUDAR clause 2452.239–70, Access to HUD Systems, including providing for each affected employee any additional background investigation forms prescribed in that clause.

(g) *Subcontracts.* The Contractor shall incorporate this clause in all subcontracts where the requirements specified in paragraph (b) of this section are applicable to performance of the subcontract.

(End of clause)

■ 21. Add 2452.237–82 to read as follows:

2452.237–82 Access to controlled unclassified information (CUI).

As prescribed in HUDAR 2437.110(e)(7), the Contracting Officer shall insert provision 2452.237–82 in Section L of solicitations when controlled unclassified information (CUI), as defined in the provision, will be provided to potential offerors for the purpose of preparing offers.

ACCESS TO CONTROLLED UNCLASSIFIED INFORMATION (CUI) (APR 2019)

(a) For the sole purpose of preparing an offer in response to this solicitation, HUD may make certain controlled unclassified information (CUI) available to prospective offerors.

(b) CUI:

(1) Is any information which the loss, misuse, or modification of, or unauthorized access to, could adversely affect the national interest or the conduct of Federal programs or the privacy to which individuals are entitled under section 552a of title 5, United States Code (the Privacy Act), but which has not been specifically authorized under criteria established by an Executive Order or an Act of Congress to be kept secret in the interest of national defense or foreign policy;

(2) Is not available to the general public;

(3) May include:

(i) Government acquisition-sensitive information, including source selection information as defined at section 2.101 of the Federal Acquisition Regulation (48 CFR chapter 1); contractor bid or proposal information;

(ii) Information contained in individual contracts that is not public information and such contract information that is contained in Government databases; proprietary economic, financial, or business information (*e.g.,* salary information) provided to the Government by other parties (*e.g.,* other contractors) or belonging to HUD;

(iii) Personally identifiable information (PII) that includes, but is not limited to, Social Security numbers, names, dates of birth, places of birth, parents' names, credit card numbers, applications for entitlements, and information relating to a person's private financial, income, employment, and tax records; and

(iv) Other information that the HUD Contracting Officer (CO) or other authorized HUD employee explicitly identifies as CUI.

(4) May exist in various physical media (*e.g.,* paper, electronic file, audio, or video disc), may be transmitted orally, developed under or pre-exist any related contract, and may be in its original form, or a derivative form (*i.e.,* where the information has been included in contractor-generated work, or where it is discernible from materials incorporating or based upon such information).

(c) As a prior condition to being provided access to any CUI, each prospective offeror shall execute the following nondisclosure agreements and deliver the executed agreements to the Contracting Officer:

(1) Nondisclosure Agreement between the Department of Housing and Urban Development (''HUD'') and Offeror Granting Conditional Access to Controlled Unclassified Information (''Offeror Agreement'') (see Attachment J-__ [*contracting officer insert attachment number*]). This agreement must be executed by an officer or other representative of the company authorized to bind the firm to the commitments made by the agreement and the individual nondisclosure agreements executed by those offeror employees or representatives to whom the sensitive information will be provided.

(2) Nondisclosure Agreement between the Department of Housing and Urban Development and Offeror Employee or Other External Party Granting Conditional Access to Controlled Unclassified Information (''Nondisclosure Agreement'') (see Attachment J-__ [*contracting officer insert attachment number*]). A separate agreement must be executed by each person to whom access to CUI will be provided, regardless of whether HUD or the Offeror provides such access. The offeror is responsible for ensuring that each individual who is provided access to CUI executes a nondisclosure agreement.

(3) Nondisclosure agreements must be submitted to the CO and COR within ten (10) days after contract award or as otherwise specified by the CO.

(d) CUI will be provided to prospective offerors as follows: [*describe how information will be provided including: The party responsible for providing access to information, the procedure for obtaining access, and the format in which the information is contained; e.g., ''by the contracting officer on compact disk (CD) at the pre-proposal meeting*].

(e) The offeror's failure to comply with any part of this provision or with the terms of the required nondisclosure agreements may disqualify the offeror for consideration of any contract awarded under this solicitation.

(End of Provision)

■ 22. Add 2452.237–83 to read as follows:

2452.237–83 Access to controlled unclassified information (CUI).

As prescribed in HUDAR 2437.110(e)(8), the Contracting Officer shall insert clause 2452.237–83 in Section H of solicitations and contracts under which contractor and/or subcontractor employees will be granted access to controlled unclassified information as defined in the clause.

ACCESS TO CONTROLLED UNCLASSIFIED INFORMATION (CUI) (APR 2019)

(a) For the sole purpose of performing work required under this contract, the contracting officer may grant the contractor—including contractor employees, subcontractors, and subcontractor employees—access to controlled unclassified information (CUI).

(b) CUI:

(1) Is any information which the loss, misuse, or modification of, or unauthorized access to, could adversely affect the national interest or the conduct of Federal programs or the privacy to which individuals are entitled under section 552a of title 5, United States Code (the Privacy Act), but which has not been specifically authorized under criteria established by an Executive Order or an Act of Congress to be kept secret in the interest of national defense or foreign policy;

(2) Is not available to the general public;

(3) May include:

(i) Government acquisition-sensitive information, including source selection information as defined at section 2.101 of the Federal Acquisition Regulation (48 CFR chapter 1); contractor bid or proposal information;

(ii) Information contained in individual contracts that is not public information and such contract information that is contained in Government databases; proprietary economic, financial, or business information (*e.g.,* salary information) provided to the Government by other parties (*e.g.,* other contractors) or belonging to HUD;

(iii) Personally identifiable information (PII) that includes, but is not limited to social security numbers, names, dates of birth, places of birth, parents' names, credit card numbers, applications for entitlements, and information relating to a person's private financial, income, employment, and tax records; and

(iv) Other information that the HUD contracting officer or other authorized HUD employee explicitly identifies as CUI; and

(4) May exist in various physical media (*e.g.,* paper, electronic file, audio or video disc) or be transmitted orally, may be developed under or pre-exist any related contract, and may be in its original form or a derivative form (*i.e.,* where the information has been included in contractor-generated work, or where it is discernible from materials incorporating or based upon such information).

(c) As a prior condition to being provided access to any CUI, each contractor or subcontractor employee shall execute the nondisclosure agreement in attachment J.__ [*contracting officer insert attachment number*] to this contract and deliver the executed agreement to the contracting officer.

(d) The Contractor shall include this clause in all subcontracts.

(e) The contractor's failure to comply with any part of this clause or with the terms of the required nondisclosure agreements may result in the termination of this contract for default.

(End of Clause)

■ 23. Revise 2452.239–70 to read as follows:

2452.239–70 Access to HUD systems.

As prescribed in 2439.107(a), insert the following clause:

ACCESS TO HUD SYSTEMS (APR 2019)

(a) *Definitions.* As used in this clause—

Access means the ability to obtain, view, read, modify, delete, and/or otherwise make use of information resources.

Application means the use of information resources (information and information technology) to satisfy a specific set of user requirements (see Office of Management and Budget (OMB) Circular A–130).

Contract means any authorized contractual instrument, including, but not restricted to, task orders, purchase orders, Blanket Purchase Agreement calls, etc.

Contractor employee means an employee of the prime contractor or of any subcontractor, affiliate, partner, joint venture, or team members with which the Contractor is associated. It also includes consultants engaged by any of those entities.

Mission-critical system means an information technology or telecommunications system used or operated by HUD or by a HUD contractor, or organization on behalf of HUD, that processes any information, the loss, misuse, disclosure, or unauthorized access to, or modification of which would have a debilitating impact on the mission of the agency.

NACI means a National Agency Check with Inquiries, the minimum background investigation prescribed by the Office of Personnel Management (OPM).

PIV Card means the Personal Identity Verification (PIV) Card, the Federal Government-issued identification credential (*i.e.,* identification badge).

Sensitive information means any information of which the loss, misuse, or unauthorized access to, or modification of, could adversely affect the national interest, the conduct of Federal programs, or the privacy to which individuals are entitled under section 552a of title 5, United States Code (the Privacy Act), but which has not been specifically authorized under criteria established by an Executive Order or an Act of Congress to be kept secret in the interest of national defense or foreign policy.

System means an interconnected set of information resources under the same direct management control, which shares common functionality. A system normally includes hardware, software, information, data, applications, communications, and people (see OMB Circular A–130). System includes any system owned by HUD or owned and operated on HUD's behalf by another party.

(b) *General.* (1) The performance of this contract requires contractor employees to have access to a HUD system or systems. All such employees who do not already possess a current PIV Card acceptable to HUD shall be required to provide personal background information, undergo a background investigation (NACI or other OPM-required or approved investigation), including an FBI National Criminal History Fingerprint Check, and obtain a PIV Card prior to being permitted access to any such system in performance of this contract. HUD may accept a PIV Card issued by another Federal Government agency but shall not be required to do so. No contractor employee will be permitted access to any HUD system without a PIV Card.

(2) All contractor employees who require access to mission-critical systems or sensitive information contained within a HUD system or application(s) are required to have a more extensive background investigation. The investigation shall be commensurate with the risk and security controls involved in managing, using, or operating the system or applications(s).

(c) *Citizenship-related requirements.* Each affected contractor employee as described in paragraph (b) of this clause shall be:

(1) A United States (U.S.) citizen; or,

(2) A national of the United States (see 8 U.S.C. 1408); or,

(3) An alien lawfully admitted into, and lawfully permitted to be employed in the United States, provided that for any such individual, the Government is able to obtain sufficient background information to complete the investigation as required by this clause. Failure on the part of the contractor to provide sufficient information to perform a required investigation or the inability of the Government to verify information provided

for affected contractor employees will result in denial of their access.

(d) *Background investigation process.* (1) The Contracting Officer's Representative (COR) shall notify the Contractor of those contractor employee positions requiring background investigations.

(i) For each contractor employee requiring access to HUD information systems, the Contractor shall submit the following properly completed forms: Electronic Standard Form (SF) 85, ''Questionnaire for Non-sensitive Positions'' via e-QIP, completed USAccess enrollment (electronic fingerprinting) and Optional Form (OF) 306 (Items 1 through 17). The SF–85 and OF–306 are available from the OPM website, *http://www.opm.gov*. The electronic questionnaire is available on OPM's e-QIP site, *https://www.opm.gov/investigations/e-qip-application/*.

(ii) For each contractor employee requiring access to mission-critical systems and/or sensitive information contained within a HUD system and/or application(s), the Contractor shall submit the following properly completed forms: Electronic SF–85P, ''Questionnaire for Public Trust Positions'' via e-QIP;'' Electronic Standard Form (SF) 85, ''Questionnaire for Non-sensitive Positions via e-QIP,'' completed USAccess enrollment (electronic fingerprinting) and Optional Form (OF) 306 (Items 1 through 17). The SF–85 and OF–306 are available from the OPM website, *http://www.opm.gov*. The Electronic questionnaire is available on OPM's e-QIP site, *https://www.opm.gov/investigations/e-qip-application/*; and a Fair Credit Reporting Act form (authorization for the credit-check portion of the investigation). Contractor employees shall complete the Medical Release behind the SF–85P.

(iii) The electronic questionnaires (e-QIP) SF–85, 85P, and OF–306 are available from OPM's websites *https://www.opm.gov/investigations/e-qip-application/* and *http://www.opm.gov*. The COR will provide all other forms that are not obtainable via the internet.

(2) The Contractor shall deliver the forms and information required in paragraph (d)(1) of this clause to the COR as securely as possible.

(3) Affected contractor employees who have had a Federal background investigation without a subsequent break in Federal employment or Federal contract service exceeding 2 years may be exempt from the investigation requirements of this clause, subject to verification of the previous investigation. For each such employee, the Contractor shall submit the following information in lieu of the forms and information listed in paragraph (d)(1) of this clause: PIV and Pre-Security Form.

(4) The investigation process shall consist of a range of personal background inquiries and contacts (written and personal) and verification of the information provided on the investigative forms described in paragraph (d)(1) of this clause.

(5) Upon completion of the investigation process, the COR will notify the Contractor if any contractor employee is determined to be unsuitable to have access to the system(s), application(s), or information. Such an employee may not be given access to those resources. If any such employee has already been given access pending the results of the background investigation, the Contractor shall ensure that the employee's access is revoked immediately upon receipt of the COR's notification.

(6) Failure of the COR to notify the Contractor (see paragraph (d)(1) of this clause) of any employee who should be subject to the requirements of this clause and is known, or should reasonably be known, by the Contractor to be subject to the requirements of this clause, shall not excuse the Contractor from making such employee(s) known to the COR. Any such employee who is identified and is working under the contract, without having had the appropriate background investigation or furnished the required forms for the investigation, shall cease to perform such work immediately and shall not be given access to the system(s)/application(s) described in paragraph (b) of this clause until the Contractor has provided the investigative forms to the COR for the employee, as required in paragraph (d)(1) of this clause.

(7) The Contractor shall notify the COR in writing whenever a contractor employee for whom a background investigation package was required and submitted to HUD, or for whom a background investigation was completed, terminates employment with the Contractor, or otherwise is no longer performing work under this contract that requires access to the system(s), application(s), or information. The Contractor shall provide a copy of the written notice to the Contracting Officer.

(e) *PIV Cards.* (1) HUD will issue a PIV Card to each contractor employee who is to be given access to HUD systems and does not already possess a PIV Card acceptable to HUD (see paragraph (b) of this clause). HUD will not issue the PIV Card until the contractor employee has (1) successfully cleared an FBI National Criminal History Fingerprint Check, (2) HUD has initiated the background investigation for the contractor employee, and (3) a Security Approval Notice from HUD PSD via *PSDContractorIn-box@hud.gov* has been received. Initiation is defined to mean that all background information required in paragraph (d)(1) of this clause has been delivered to HUD. The employee may not be given access prior to those three events. HUD may issue a PIV Card and grant access pending the completion of the background investigation. HUD will revoke the PIV Card and the employee's access if the background investigation process for the employee, including adjudication of the investigation results, has not been completed within 6 months after the issuance of the PIV Card.

(2) PIV Cards shall identify individuals as contractor employees. Contractor employees shall display their PIV Cards on their persons at all times while working in a HUD facility, and shall present cards for inspection upon request by HUD officials or HUD security personnel.

(3) The Contractor shall be responsible for all PIV Cards issued to the Contractor's employees and shall immediately notify the COR if any PIV Card(s) cannot be accounted for. The Contractor shall promptly return PIV Cards to HUD as required by the FAR clause at 52.204–9. The Contractor shall notify the COR immediately whenever any contractor employee no longer has a need for his/her HUD-issued PIV Card (*e.g.,* the employee terminates employment with the Contractor, the employee's duties no longer require access to HUD systems). The COR will instruct the Contractor as to how to return the PIV Card. Upon expiration of this contract, the COR will instruct the Contractor as to how to return all HUD-issued PIV Cards not previously returned. Unless otherwise directed by the Contracting Officer, the Contractor shall not return PIV Cards to any person other than the COR.

(4) The Contractor shall submit a report to the Contracting Officer and COR no later than five (5) calendar days after the end of each calendar quarter that provides the status of each employee who is required to work in a HUD facility during the performance of the contract. At a minimum, the report shall identify the Contractor and the contract number, and list for each employee the following information:

(i) Employee name;

(ii) Name of HUD facility where employee works;

(iii) Date background check submitted;

(iv) Date PIV Card issued;

(v) PIV card number;

(vi) Date employee no longer has need of the HUD PIV Card;

(vii) Date Contracting Officer and COR were notified that employee no longer has need of the HUD PIV Card; and

(viii) Date PIV Card returned to COR.

(f) *Control of access.* HUD shall have and exercise full and complete control over granting, denying, withholding, and terminating access of contractor employees to HUD systems. The COR will notify the Contractor immediately when HUD has determined that an employee is unsuitable or unfit to be permitted access to a HUD system. The Contractor shall immediately notify such employee that he/she no longer has access to any HUD system, physically retrieve the employee's PIV Card from the employee, and provide a suitable replacement employee in accordance with the requirements of this clause.

(g) *Incident response notification.* An incident is defined as an event, either accidental or deliberate, that results in unauthorized access, loss, disclosure, modification, or destruction of information technology systems, applications, or data. The Contractor shall immediately notify the COR and the Contracting Officer of any known or suspected incident, or any unauthorized disclosure of the information contained in the system(s) to which the Contractor has access.

(h) *Nondisclosure of information.* (1) Neither the Contractor nor any of its employees shall divulge or release data or information developed or obtained during performance of this contract, except to authorized Government personnel with an established need to know, or upon written approval of the Contracting Officer. Information contained in all source

documents and other media provided by HUD is the sole property of HUD.

(2) The Contractor shall require that all employees who may have access to the system(s)/applications(s) identified in paragraph (b) of this clause sign a pledge of nondisclosure of information. The employees shall sign these pledges before they are permitted to perform work under this contract. The Contractor shall maintain the signed pledges for a period of 3 years after final payment under this contract. The Contractor shall provide a copy of these pledges to the COR.

(i) *Security procedures.* (1) The Contractor shall comply with applicable Federal and HUD statutes, regulations, policies, and procedures governing the security of the system(s) to which the Contractor's employees have access including, but not limited to:

(i) The Federal Information Security Management Act (FISMA);

(ii) Office of Management and Budget (OMB) Circular A–130, Management of Federal Information Resources, Appendix III, Security of Federal Automated Information Resources;

(iii) HUD Handbook 2400.25, Information Technology Security Policy;

(iv) HUD Handbook 732.3, Personnel Security/Suitability;

(v) Federal Information Processing Standards 201 (FIPS 201), Sections 2.1 and 2.2;

(vi) Homeland Security Presidential Directive 12 (HSPD–12); and

(vii) OMB Memorandum M–05–24, Implementing Guidance for HSPD–12.

The HUD Handbooks are available online at: *http://www.hud.gov/offices/adm/hudclips/* or from the COR.

(2) The Contractor shall develop and maintain a compliance matrix that lists each requirement set forth in paragraphs (b), (c), (d), (e), (f), (g), (h), (i)(1), and (m) of this clause with specific actions taken, and/or procedures implemented, to satisfy each requirement. The Contractor shall identify an accountable person for each requirement, the date upon which actions/procedures were initiated/completed, and certify that information contained in this compliance matrix is correct. The Contractor shall ensure that information in this compliance matrix is complete, accurate, and up-to-date at all times for the duration of this contract. Upon request, the Contractor shall provide copies of the current matrix to HUD.

(3) The Contractor shall ensure that its employees, in performance of the contract, receive annual training (or once if the contract is for less than one year) in HUD information technology security policies, procedures, computer ethics, and best practices in accordance with HUD Handbook 2400.25.

(j) *Access to Contractor's systems.* The Contractor shall afford HUD, including the Office of Inspector General, access to the Contractor's facilities, installations, operations, documentation (including the compliance matrix required under paragraph (i)(2) of this clause), databases, and personnel used in performance of the contract. Access shall be provided to the extent required to carry out, but not limited to, any information security program activities, investigation, and audit to safeguard against threats and hazards to the integrity, availability, and confidentiality of HUD data and systems, or to the function of information systems operated on behalf of HUD, and to preserve evidence of computer crime.

(k) *Contractor compliance with this clause.* Failure on the part of the Contractor to comply with the terms of this clause may result in termination of this contract for default.

(l) *Physical access to Federal Government facilities.* The Contractor and any subcontractor(s) shall also comply with the requirements of HUDAR clause 2452.237–75 when the Contractor's or subcontractor's employees will perform any work under this contract on site in a HUD or other Federal Government facility.

(m) *Subcontracts.* The Contractor shall incorporate this clause in all subcontracts where the requirements specified in paragraph (b) of this clause are applicable to performance of the subcontract.

(End of clause)

■ 22. Amend 2452.242–71 by revising the introductory text and main clause to read as follows:

2452.242–71 Contract management system.

As prescribed in 2442.1107, insert the following clause:

CONTRACT MANAGEMENT SYSTEM (APR 2019)

(a) The Contractor shall use contract management baseline planning and progress reporting as described herein.

(b) The contract management system shall consist of two parts:

(1) *Baseline plan.* The baseline plan shall consist of:

(i) A narrative portion that:

(A) Identifies each task and significant activity required for completing the contract work, critical path activities, task dependencies, task milestones, and related deliverables;

(B) Describes the contract schedule, including the period of time needed to accomplish each task and activity (see paragraph (b)(1)(ii)(B) of this clause);

(C) Describes staff (*e.g.,* hours per individual), financial, and other resources allocated to each task and significant activity; and

(D) Provides the rationale for contract work organization and resource allocation.

(ii) A graphic portion showing:

(A) Cumulative planned or budgeted costs of work scheduled for each reporting period over the life of the contract (*i.e.,* the budgeted baseline); and

(B) The planned start and completion dates of all planned and budgeted tasks and activities.

(2) *Progress reports.* Progress reports shall consist of:

(i) A narrative portion that:

(A) Provides a brief, concise summary of technical progress made and the costs incurred for each task during the reporting period; and

(B) Identifies problems, or potential problems that will affect the contract's cost or schedule, the causes of the problems, and the Contractor's proposed corrective actions.

(ii) A graphic portion showing:

(A) The original time-phased, budgeted baseline;

(B) The schedule status and degree of completion of the tasks, activities, and deliverables shown in the baseline plan for the reporting period, including actual start and completion dates for all tasks and activities in the baseline plan; and

(C) The costs incurred during the reporting period, the current total amount of costs incurred through the end date of the reporting period for budgeted work, and the projected costs required to complete the work under the contract.

(3) *Reporting frequency.* The reports described in paragraph (b)(2) of this clause shall be submitted [insert period, *e.g.,* monthly, quarterly, or schedule based on when payments will be made under the contract].

(c) The formats, forms, and/or software to be used for the contract management system under this contract shall be [Contracting Officer insert appropriate language, such as ''as prescribed in the schedule;'' ''a format, forms and/or software designated by the COR'' or, ''the Contractor's own format, forms and/or software, subject to the approval of the COR.'']

(d) When this clause applies to individual task orders under the contract, the word ''contract'' shall mean ''task order.''

(End of clause)

* * * * *

■ 23. Revise 2452.246–70 to read as follows:

2452.246–70 Inspection and acceptance.

As prescribed in 2446.502–70, insert the following clause in all solicitations and contracts:

INSPECTION AND ACCEPTANCE (APR 2019)

Inspection and acceptance of all work required under this contract shall be performed by the Contracting Officer's Representative (COR) or other individual as designated by the Contracting Officer or COR.

(End of clause)

■ 24. Revise 2452.3 to read as follows:

2452.3 Provision and clause matrix.

BILLING CODE 4210–67–P

Key:					
Type of Contract:					
P/C	=	Provision or Clause	DDR	=	Dismantling, Demolition, or Removal of Improvements
			A&E	=	Architect-Engineering
UCF	=	Uniform Contract Format Section, when Applicable	FAC	=	Facilities
FP SUP	=	Fixed-Price Supply	IND DEL	=	Indefinite Delivery
CR SUP	=	Cost-Reimbursement Supply	TRN	=	Transportation
FP R&D	=	Fixed-Price Research & Development	SAP	=	Simplified Acquisition Procedures (excluding micro-purchase)
CR R&D	=	Cost Reimbursement Research & Development	UTL SVC	=	Utility Services
FP SVC	=	Fixed-Price Service	CI	=	Commercial Items
CR SVC	=	Cost Reimbursement Service			
FP CON	=	Fixed-Price Construction	**Contract Purpose:**		
CR CON	=	Cost Reimbursement Construction	R	=	Required
T&M LH	=	Time & Material/Labor Hours	RA	=	Required when Applicable
LMV	=	Leasing of Motor Vehicles	O	=	Optional
COM SVC	=	Communication Services	□□	=	Revision

PRINCIPLE TYPE AND/OR PURPOSE OF CONTRACT																							
PROVISION OR CLAUSE	PRESCRIBED IN	P/C	UCF	FP SUP	CR SUP	FP R&D	CR R&D	FP SVC	CR SVC	FP CON	CR CON	T&M LH	LMV	COM SVC	DDR	A&E	FAC	IND DEL	TRN	SAP	UTL SVC	CI
2452.201-70 Coordination of Data Collection Activities	2401.106-70	C	I	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA
2452.203-70 Prohibition Against the Use of Federal Employees	2403.670	C	I	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R

2452.204-70 Preservation of, and Access to, Contract Records (Tangible and Electronically Stored Information (ESI) Formats)	2404.7001	C	I																			
Alternate I	2404.7001	C	I		R		R		R		R	RA			RA	RA	RA	RA	RA		RA	
Alternate I I	2404.7001	C	I	R		R		R		R		RA		RA	RA	RA	RA	RA	RA		RA	R
2452.208-71 Reproduction of Reports	2408.802-70	C	I	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA
PROVISION OR CLAUSE	**PRESCRIBED IN**	**P/C**	**UCF**	**FP SUP**	**CR SUP**	**FP R&D**	**CR R&D**	**FP SVC**	**CR SVC**	**FP CON**	**CR CON**	**T&M LH**	**LMV**	**COM SVC**	**DDR**	**A&E**	**FAC**	**IND DEL**	**TRN**	**SAP**	**UTL SVC**	**CI**
2452.209-70 Potential Organizational Conflicts of Interest	2409.507-1	P	L	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA		RA	RA
2452.209-71 Limitation on Future Contracts	2409.507-2	C	I			RA	RA	RA	RA	RA	RA	RA		RA	RA	RA		RA				RA
2452.209-72 Organizational Conflicts of Interest	2409.507-2	C	I			RA	RA	RA	RA	RA	RA	RA		RA	RA	RA	RA	RA	RA		RA	RA
2452.215-70 Proposal Content	2415.209(a)	P	L			RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA		RA	RA
Alternate I	2415.209(a)	P	L	RA	RA			RA	RA			RA	RA	RA	RA		RA	RA	RA		RA	RA
Alternate II	2415.209(a)	P	L			RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA		RA	RA
Alternate III	2415.209(a)	P	L	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA		RA	RA
2452.215-71 Relative Importance of Technical Evaluation Factors to Cost or Price	2415.209(a)(2)	P	M	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA		RA	RA
2452.215-72 Evaluation of Small Business Participation	2415.370	P	M	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA		RA	RA
2452.216-70 Estimated Cost, Base Fee and Award fee	2416.406(e)(1)	C	I		RA		RA		RA													
2452.216-71 Award Fee	2416.406(e)(2)	C	I	RA		RA		RA		RA												
2452.216-72	2416.406(e)(3)	C	I	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA

Determination of Award Fee Earned																						
2452.216-73 Performance evaluation plan	2416.406(e)(3)	C	I	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA
2452.216-74 Distribution of award fee	2416.406(e)(3)	C	I	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA
PROVISION OR CLAUSE	**PRESCRIBED IN**	**P/C**	**UCF**	**FP SUP**	**CR SUP**	**FP R&D**	**CR R&D**	**FP SVC**	**CR SVC**	**FP CON**	**CR CON**	**T&M LH**	**LMV**	**COM SVC**	**DDR**	**A&E**	**FAC**	**IND DEL**	**TRN**	**SAP**	**UTL SVC**	**CI**
Alternate I	2416.406(e)(3)	C	I	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA
2452.216-75 Unpriced Task Orders	2416.506-70	C	I	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA
2452.216-76 Minimum and Maximum Quantities and Amounts for Order	2416.506-70(b)	C	I	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA
2452.216-77 Estimated Quantities - Requirements Contract	2416.506-70(c)	C	I	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA
2452.216-78 Ordering Procedures	2416.506-70(d)	C	I	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA
Alternate I	2416.506-70(d)	C	I	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA
Alternate II	2416.506-70(d)	C	I	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA
2452.216-79 Estimated Cost (No Fee)	2416.307(b)	C	I		RA		RA		RA		RA											
2452.216-80 Estimated Cost and Fixed-Fee	2416.307(b)	C	I		RA		RA		RA		RA											
2452.216-81 Level of Effort and Fee Payment	2416.506-70(f)	**C**	I			RA	RA	RA	RA	RA	RA	RA		RA	RA	RA	RA	RA	RA	RA	RA	RA
2452.216-82 Labor Categories, Requirements, and Estimated Level of Effort	2416.506-70(g)	**P**	**L**			RA	RA	RA	RA	RA	RA	RA		RA	RA	RA	RA	RA	RA	RA	RA	RA
2452.219-70 Small Business Subcontracting Plan Compliance	2419.708(d)	P	L	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA		RA	RA

2452.219-71 Notification of competition limited to eligible 8(a) concerns - Alternate III to FAR 52.219-18	2419.811-3(d)(3)	C	I																			
2452.219-72 Section 8(a) Direct Awards (Deviation)	2419.811-3(f)	C	I																			
2452.219-73 Incorporation of Subcontracting Plan	2419.708(b)	C	I	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA		RA	RA
2452.219-74 Small Business Subcontracting Goals	2419.708(b)	P	L	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O		O	O
PROVISION OR CLAUSE	**PRESCRIBED IN**	**P/C**	**UCF**	**FP SUP**	**CR SUP**	**FP R&D**	**CR R&D**	**FP SVC**	**CR SVC**	**FP CON**	**CR CON**	**T&M LH**	**LMV**	**COM SVC**	**DDR**	**A&E**	**FAC**	**IND DEL**	**TRN**	**SAP**	**UTL SVC**	**CI**
2452.222-70 Accessibility of meetings, conferences, and seminars to persons with disabilities	2422.1408(c)	C	I			RA	RA	RA	RA	RA	RA	RA		RA	RA	RA	RA	RA			RA	RA
2452.227-70 Government Information	2427.470	C	I			RA	RA	RA	RA	RA	RA	RA		RA	RA	RA	RA	RA	RA	RA	RA	RA
Alternate I	2427.470	C	I			RA	RA	RA	RA	RA	RA	RA		RA	RA	RA	RA	RA	RA	RA	RA	RA
2452.232-70 Payment Schedule and Invoice Submission (Fixed-Price)	2432.908(c)(2)	C	I	R		R		R		R												
Alternate I	2432.908(c)(2)	C	I	RA		RA		RA		RA												
2452.232-71 Voucher Submission (Cost-Reimbursement)	2432.908(c)(3)	C	I		R		R		R		R	R										
Alternate I	2432.908(c)(3)	C	I		RA		RA		RA		RA	RA										
2452.232-72 Limitation of Government's Obligation	2432.705-70	C	I	RA		RA		RA		RA												
2452.232-73 Constructive Acceptance Period	2432.908(c)(1)	C	I	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA
2452.232-74 Not	2432.705(b)	C	I	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA

to Exceed Limitation																						
2452.233-70 Review of Contracting Officer Protest Decisions	2433.106	P	L	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R		R	R
2452.237-70 Key Personnel	2437.110(e)(1)	C	I		RA	RA	RA	RA	RA	RA	RA	RA		RA	RA	RA	RA	RA	RA		RA	RA
2452.237-73 Conduct of Work and Technical Guidance	2437.110(e)(2)	C	I			RA	RA	R	R	R	R	R		R	R	R	R	RA	RA	RA	R	RA
2452.237-75 Access to HUD Facilities	2437.110(e)(3)	C	I	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA
2452.237-77 Temporary Closure of HUD Facilities	2437.110(e)(4)	C	I			RA	RA	RA	RA	RA	RA	RA		RA	RA	RA	RA	RA	RA	RA	RA	RA
2452.237-79—Post-Award Conference	2437.110(e)(5)	C	I			RA	RA	RA	RA	RA	RA	RA		RA	RA	RA	RA	RA	RA	RA	RA	RA
Alternate I	2437.110(e)(5)	C	I			RA	RA	RA	RA	RA	RA	RA		RA	RA	RA	RA	RA	RA	RA	RA	RA
2452.237-81 LABOR CATEGORIES, UNIT PRICES PER HOUR, AND PAYMENT	2437.110(e)(6)	C	I			RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	
2452.237-82 Access to Controlled Unclassified Information (CUI)	2437.110(e)(7)	**P**	**L**			RA	RA	RA	RA	RA	RA	RA		RA	RA	RA	RA	RA	RA	RA	RA	RA
2452.237-83 Access to Controlled Unclassified Information (CUI)	2437.110(e)(8)	**C**	**H**			RA	RA	RA	RA	RA	RA	RA		RA	RA	RA	RA	RA	RA	RA	RA	RA
PROVISION OR CLAUSE	**PRESCRIBED IN**	**P/C**	**UCF**	**FP SUP**	**CR SUP**	**FP R&D**	**CR R&D**	**FP SVC**	**CR SVC**	**FP CON**	**CR CON**	**T&M LH**	**LMV**	**COM SVC**	**DDR**	**A&E**	**FAC**	**IND DEL**	**TRN**	**SAP**	**UTL SVC**	**CI**

2452.239-70 Access to HUD Systems	2439.107(a)	C	I			RA	RA	RA	RA	RA	RA	RA		RA	RA	RA	RA	RA	RA	RA	RA	RA
2452.239-71 Information Technology Virus Security	2439.107(b)	C	I	RA	RA	RA	RA	RA	RA			RA		RA				RA		RA		RA
2452.242-70 Indirect costs	2442.705-70	C	I		RA		RA		RA		RA	RA										
2452.242-71 Contract Management System	2442.1107	C	F				RA		RA		RA	RA		RA	RA	RA		RA		O	RA	RA
Alternate I	2442.1107	C	F			RA		RA		RA		RA		RA	RA	RA		RA		O	RA	RA
2452.244-70 Consent to Subcontract	2444.204(a)	C	I	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA	RA
2452.246-70 Inspection and acceptance	2446.502-70	C	E	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
2452.251-70 Contractor Employee Travel	2451.7001	C	I				RA		RA		RA	RA		RA	RA	RA		RA			RA	

Dated: April 9, 2019.

Jimmy Scott,

Acting Chief Procurement Officer.

[FR Doc. 2019–07320 Filed 4–12–19; 8:45 am]

BILLING CODE 4210–67–C

DEPARTMENT OF TRANSPORTATION

Federal Railroad Administration

49 CFR Part 210

[Docket No. FRA–2017–0038, Notice No. 2]

RIN 2130–AC69

Railroad Noise Emission Compliance Regulations

AGENCY: Federal Railroad Administration (FRA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: In this final rule, FRA is eliminating the requirement that certain locomotives display a badge or tag to demonstrate the railroad has certified the locomotives comply with noise emission standards. This final rule reduces economic burdens on the rail industry by removing this badge or tag requirement.

DATES: This final rule is effective April 15, 2019.

ADDRESSES: *Docket:* For access to the docket to read background documents or comments received, go to *http://www.regulations.gov* at any time or to Room W12–140 on the Ground level of the West Building, 1200 New Jersey Avenue SE, Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Michael Watson, Industrial Hygienist, Office of Railroad Safety, Federal Railroad Administration, 1200 New Jersey Avenue SE, W38–224, Washington, DC 20590 (telephone 202–493–1388), or Sam Gilbert, Attorney, Office of Chief Counsel, Federal Railroad Administration, 1200 New Jersey Avenue SE, W31–228, Washington, DC 20590 (telephone 202–493–0270).

SUPPLEMENTARY INFORMATION:

I. Executive Summary

On January 30, 2017, the President issued Executive Order 13771, which requires, when an agency proposes a new significant regulation, it must identify at least two existing regulations to repeal. FRA reviewed the Railroad Noise Emission Compliance Regulations in 49 CFR part 210 [1] (''part 210'') and identified for potential elimination the requirement that railroads display a permanent badge or tag in the cabs of their locomotives certifying the locomotives comply with locomotive noise emission standards. Eliminating this requirement will reduce economic burdens on the rail industry without adversely impacting compliance with the standards. Therefore, in this final rule, FRA eliminates the badge or tag requirement. FRA is making this rule effective upon its publication, as this rule relieves a regulatory burden, consistent with 5 U.S.C. 553(d)(1).

FRA estimates there will be no cost burden associated with this final rule. In fact, the elimination of the requirement to install a badge or tag in locomotives will save railroads the cost of labor to install the badge or tag, and the cost of the badge or tag itself. Over a 20-year period, FRA estimates railroads will accrue a net present value of $1 million using a 7 percent discount rate.

II. Background and History

Pursuant to the Noise Control Act of 1972 (86 Stat. 1234, Pub. L. 92–574), the Environmental Protection Agency (EPA)

[1] Unless otherwise specified, all references to CFR sections and parts in this document refer to title 49 of the CFR.

promulgated standards in 40 CFR part 201 to limit the noise emitted by railroad locomotives, cars, and other equipment. In consultation with EPA, FRA developed regulations in 49 CFR part 210 to ensure compliance with the noise emission standards. *See* 41 FR 49183, 49183–84 (Nov. 8, 1976).

Part 210 requires railroads to certify that locomotives built after December 31, 1979, comply with locomotive noise emission standards. Under § 210.27(d), railroads must attach a permanent badge or tag in the cab of the locomotive displaying the results of the certification test (including the method, date, and location of the test, and the sound level reading obtained during the test).

In 2014, the Association of American Railroads (AAR) requested FRA eliminate the requirement to display the certification of compliance with locomotive noise emission regulations in the locomotive, in its comments on a separate proposed rule concerning stenciling requirements for window glazing. AAR Comment, November 25, 2014, Docket No. FRA–2012–0103. AAR noted that when FRA added § 210.27(d) in 1983, few locomotives had been tested and certified to comply with the noise emission standards. AAR contended that instead of testing individual locomotives for compliance with the noise emission standards, railroads currently test locomotives by model. Locomotives are built to the manufacturer's written specifications and those written specifications detail the technical features of a locomotive's particular model, including its certification under § 210.27. Documentation of that testing is maintained by the railroads as a usual and customary practice, and may be consulted if FRA has a doubt about whether a locomotive has been tested for compliance with locomotive noise emission regulations.

FRA declined to eliminate the display requirement for noise certification at that time because it was beyond the scope of the window-glazing rulemaking. However, FRA said it would consider the merits of AAR's request and evaluate how to address the issue in the future. 81 FR 6775, 6778 (Feb. 9, 2016).

FRA continually reviews and revises its regulations to ensure the regulatory burden on the rail industry is not excessive, clarify the application of existing requirements and remove requirements no longer necessary, and keep pace with emerging technology, changing operational realities, and safety concerns. In addition, on January 30, 2017, the President issued Executive Order 13771 (Reducing Regulation and Controlling Regulatory Costs), which requires agencies to identify at least two existing regulations to repeal when they propose a new significant regulation. Because the badge or tag requirement is unnecessary for FRA enforcement of the noise testing requirements, FRA determined repealing § 210.27(d) would reduce the burden on the rail industry without adversely impacting FRA's ability to ensure compliance with locomotive noise emission regulations. Accordingly, on July 16, 2018 (83 FR 32826), FRA published a notice of proposed rulemaking (NPRM) proposing to eliminate the requirement for locomotives to display a permanent badge or tag certifying compliance with noise emission standards.

III. Discussion of Comments

The NPRM solicited written comments from the public under the Administrative Procedure Act (5 U.S.C. 553). By the close of the comment period on September 14, 2018, FRA received one comment, a joint comment from AAR and the American Short Line and Regional Railroad Association (ASLRRA).

In the comment, AAR and ASLRRA stated railroads have been advocating for the removal of the certification display requirement since 2011. AAR and ASLRRA explained the certification display requirement is no longer necessary because the overwhelming majority of locomotives have already been tested by the manufacturers on a model-by-model basis. Accordingly, AAR and ASLRRA supported the NPRM's proposal to eliminate the certification display requirement.

FRA received no public comments conveying a need to change the scope or substance of the proposed rule. Therefore, in this final rule FRA eliminates the requirement for locomotives to display a permanent badge or tag certifying compliance with noise emission standards.

IV. Section-by-Section Analysis

Section 210.27 New Locomotive Certification

Section 210.27 requires railroads to certify that their locomotives comply with noise emission standards. Specifically, paragraph (a) requires railroads to certify that locomotives built after December 31, 1979, comply with the noise emission standards. Paragraph (b) provides railroads must determine certification for each locomotive model by load cell testing or passby testing. Paragraph (c) states if railroads use passby testing, they should conduct the test with the locomotive operating at maximum rated horsepower output. Under paragraph (d), railroads must attach a permanent badge or tag in the cab of the locomotive to display the results of the certification test.

FRA determined this permanent badge or tag is no longer necessary, and this final rule removes paragraph (d) in its entirety. FRA notes although railroads no longer need to display a badge or tag in the locomotive cab, the locomotives still need to be tested and certified to comply with the noise emission standards, as required under paragraphs (a) through (c) of this section.

V. Regulatory Impact and Notices

Executive Order 12866 and DOT Regulatory Policies and Procedures

FRA evaluated this final rule consistent with existing policies and procedures, and determined it to be non-significant under Executive Order 12866 as well as DOT policies and procedures (44 FR 11034 (February 26, 1979)). This final rule is considered an Executive Order 13771 deregulatory action. Details on the estimated cost savings of the rule can be found in the rule's economic analysis.

FRA is eliminating the requirement that locomotives display a permanent badge or tag to demonstrate they have been certified to comply with noise emission standards. (The permanent badge or tag will hereafter be referred to as a ''badge'' in this analysis.) A badge is typically a metal plate installed inside the cab of the locomotive. Railroads will benefit from this final rule because a badge had been required in all locomotives. Any railroad purchasing new locomotives will not be required to display a badge, therefore saving it money. Also, badges will no longer need to be replaced when locomotives are overhauled.

FRA estimates there will be no cost burden associated with this final rule. The elimination of the requirement to install a badge in locomotives will save railroads the cost of labor to install the badge, and the cost of the badge itself. Over a 20-year period, this analysis finds $1 million in present value cost savings, estimated using a 7 percent discount rate. FRA has prepared and placed in the docket a regulatory analysis addressing the economic impact of this rule.

Regulatory Flexibility Act and Executive Order 13272

The Regulatory Flexibility Act (RFA) (94 Stat. 1164, Pub. L. 96–354), as amended, and codified as amended at 5 U.S.C. 601–612, and Executive Order

13272 (Proper Consideration of Small Entities in Agency Rulemaking), require agency review of proposed and final rules to assess their impact on ''small entities'' for purposes of the RFA. An agency must prepare a regulatory flexibility analysis unless it determines and certifies a rule is not expected to have a significant economic impact on a substantial number of small entities. FRA has determined this final rule will not have a significant economic impact on a substantial number of small entities.

Federal agencies may adopt their own size standards for small entities, in consultation with the Small Business Administration and in conjunction with public comment. FRA published a final statement of agency policy that formally designates ''small entities'' or ''small businesses'' as being railroads, contractors, and hazardous materials shippers with the revenue of a Class III railroad as set forth in 49 CFR 1201.1–1, which is $20 million or less in inflation-adjusted annual revenues, and commuter railroads or small governmental jurisdictions that serve populations of 50,000 or less. *See* 68 FR 24891 (May 9, 2003), codified at 49 CFR part 209, appendix C. FRA is using this definition for this rulemaking.

FRA estimates there are 704 Class III railroads, most of which will be affected by this final rule. Most Class III railroads do not purchase new locomotives; rather, they purchase used locomotives from Class I and Class II railroads. Therefore, any badges required will have already been installed when obtained from the larger railroad. If a small railroad did purchase a new locomotive, however, they would save money because the badge would no longer be required. Small railroads will also benefit since they will not need to replace badges as they age or when locomotives are overhauled. Therefore, any impact on small railroads by this final regulation will likely be small and entirely beneficial. Thus, pursuant to the RFA, 5 U.S.C. 601(b), the FRA Administrator hereby certifies that this rule will not have a significant economic impact on a substantial number of small entities.

Paperwork Reduction Act

The information collection requirements in this final rule are being submitted to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*). The sections that contain the current information collection requirements and the estimated time to fulfill each requirement are as follows:

CFR section	Respondent universe	Total annual responses	Average time per response	Total annual burden hours
210.27(a)—New Locomotive Certification—Request to Manufacturer for Certification.	4 Manufacturers	4 requests	30 minutes	2 hours.
210.27(d)—New Locomotive Certification—Identification of Certified Locomotive by Badge Plate (Rescission of Provision).	*4 Manufacturers*	*790 badges*	*30 minutes*	*minus 395 hours* (*Previously Approved Burden by OMB*).
210.31—Recorded Measurements of Locomotive Noise Emission Test.	4 Manufacturers	745 forms/records	3 hours	2,235 hours.
Total	4 Manufacturers	749 responses	2.987 hours	2,237 hours

All estimates include the time for reviewing instructions, searching existing data sources, gathering or maintaining the needed data, and reviewing the information.

For information or a copy of the paperwork package submitted to OMB, contact Mr. Robert Brogan, Information Collection Clearance Officer, Office of Railroad Safety, FRA, at 202–493–6292, or Ms. Kimberly Toone, Information Collection Clearance Officer, Office of Information Technology, FRA, at 202–493–6132.

Organizations and individuals desiring to submit comments on the collection of information requirements should direct them to Mr. Robert Brogan or Ms. Kimberly Toone, Federal Railroad Administration, 1200 New Jersey Avenue SE, 3rd Floor, Washington, DC 20590. Comments may also be submitted via email to Mr. Brogan at *Robert.Brogan@dot.gov,* or to Ms. Toone at *Kim.Toone@dot.gov.*

OMB is required to make a decision concerning the collection of information requirements contained in this final rule between 30 and 60 days after publication of this document in the **Federal Register**. Therefore, a comment to OMB is best assured of having its full effect if OMB receives it within 30 days of publication.

FRA is not authorized to impose a penalty on persons for violating information collection requirements which do not display a current OMB control number, if required. FRA intends to obtain current OMB control numbers for any new information collection requirements resulting from this rulemaking action prior to the effective date of the final rule. The current OMB control number for this information collection is OMB No. 2130–0527.

Federalism Implications

Executive Order 13132, ''Federalism'' (64 FR 43255, Aug. 10, 1999), requires FRA to develop an accountable process to ensure ''meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications.'' ''Policies that have federalism implications'' are defined in the Executive Order to include regulations that have ''substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.'' Under Executive Order 13132 (Federalism), agencies may not issue a regulation with federalism implications that imposes substantial direct compliance costs and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by State and local governments, or the agency consults with State and local government officials early in the process of developing the regulation.

FRA analyzed this final rule consistent with the principles and criteria in Executive Order 13132. FRA determined the final rule will not have substantial direct effects on States, on the relationship between the national government and States, or on the distribution of power and responsibilities among the various levels of government. In addition, FRA determined this final rule will not impose substantial direct compliance costs on State and local governments.

Therefore, the consultation and funding requirements of Executive Order 13132 do not apply.

However, this final rule could have preemptive effect under certain provisions of the Federal railroad safety statutes, specifically the former Federal Railroad Safety Act of 1970 (former FRSA), repealed and re-codified at 49 U.S.C. 20106, and the former Locomotive Boiler Inspection Act (LIA) at 45 U.S.C. 22–34, repealed and re-codified at 49 U.S.C. 20701–03. The former FRSA provides that States may not adopt or continue in effect any law, regulation, or order related to railroad safety or security that covers the subject matter of a regulation prescribed or order issued by the Secretary of Transportation (with respect to railroad safety matters) or the Secretary of Homeland Security (with respect to railroad security matters), except when the State law, regulation, or order qualifies under the ''local safety or security hazard'' exception to section 20106. Moreover, the U.S. Supreme Court has held the former LIA preempts the field concerning locomotive safety. *See Napier* v. *Atl. Coast Line R.R.,* 272 U.S. 605 (1926) and *Kurns* v. *R.R. Friction Prods. Corp.,* 565 U.S. 625 (2012). Therefore, it is possible States could be preempted from requiring that locomotives display a permanent badge or tag certifying the locomotive complies with noise emission standards.

Environmental Impact

FRA has evaluated this final rule consistent with its ''Procedures for Considering Environmental Impacts'' (FRA's Procedures), 64 FR 28545 (May 26, 1999), as required by the National Environmental Policy Act (42 U.S.C. 4321 *et seq.*), other environmental statutes, Executive Orders, and related regulatory requirements. FRA has determined this final rule is not a major FRA action (requiring the preparation of an environmental impact statement or environmental assessment) because it is categorically excluded from detailed environmental review pursuant to section 4(c)(20) of FRA's Procedures. 64 FR 28547–48.

Under section 4(c) and (e) of FRA's Procedures, the agency has further concluded no extraordinary circumstances exist with respect to this regulation that might trigger the need for a more detailed environmental review. Consequently, FRA finds this final rule is not a major Federal action significantly affecting the quality of the human environment.

Unfunded Mandates Reform Act of 1995

Under Section 201 of the Unfunded Mandates Reform Act of 1995, 2 U.S.C. 1531, each Federal agency ''shall, unless otherwise prohibited by law, assess the effects of Federal regulatory actions on State, local, and tribal governments, and the private sector (other than to the extent that such regulations incorporate requirements specifically set forth in law).'' Section 202 of the Act, 2 U.S.C. 1532, further requires that before promulgating any general notice of proposed rulemaking that is likely to result in promulgation of any rule that includes any Federal mandate that may result in the expenditure by State, local, and tribal governments, in the aggregate, or by the private sector, of $100,000,000 or more (adjusted annually for inflation) in any 1 year, and before promulgating any final rule for which a general notice of proposed rulemaking was published, the agency shall prepare a written statement detailing the effect on State, local, and tribal governments and the private sector. This final rule will not result in the expenditure, in the aggregate, of $100,000,000 or more in any one year (adjusted annually for inflation), and thus preparation of such a statement is not required.

List of Subjects in 49 CFR Part 210

Noise control.

The Rule

For the reasons discussed in the preamble, FRA amends part 210 of chapter II, subtitle B of title 49, Code of Federal Regulations, as follows:

PART 210—RAILROAD NOISE EMISSION COMPLIANCE REGULATIONS

■ 1. The authority citation for part 210 is revised to read as follows:

Authority: Sec. 17, Pub. L. 92–574, 86 Stat. 1234 (42 U.S.C. 4916); 49 CFR 1.89.

§ 210.27 [Amended]

■ 2. Amend § 210.27 by removing paragraph (d).

Issued in Washington, DC.

Ronald L. Batory,

Administrator.

[FR Doc. 2019–07389 Filed 4–12–19; 8:45 am]

BILLING CODE 4910–06–P

Proposed Rules

Federal Register
Vol. 84, No. 72
Monday, April 15, 2019

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

OFFICE OF GOVERNMENT ETHICS

5 CFR Part 2635

RIN 3209–AA50

Notice and Request for Comments: Legal Expense Fund Regulation

AGENCY: Office of Government Ethics (OGE).

ACTION: Advance notice of proposed rulemaking and notice of public hearing.

SUMMARY: The U.S. Office of Government Ethics invites comments on this advance notice of proposed rulemaking (ANPRM) for consideration in developing a legal expense fund regulation.

DATES: Comments must be received by June 14, 2019.

ADDRESSES: Email: *usoge@oge.gov;* Fax: (202) 482–9237; Mail/Hand Delivery/Courier: Office of Government Ethics, Suite 500, 1201 New York Avenue NW, Washington, DC 20005–3917.

FOR FURTHER INFORMATION CONTACT: Rachel McRae, Associate Counsel, General Counsel and Legal Policy Division, Office of Government Ethics, Suite 500, 1201 New York Avenue NW, Washington, DC 20005–3917; Telephone: (202) 482–9300; TTY: (800) 877–8339; FAX: (202) 482–9237.

SUPPLEMENTARY INFORMATION: There is currently no statutory or regulatory framework in the executive branch for establishing a legal expense fund, and the U.S. Office of Government Ethics (OGE) has not approved or disapproved any specific legal expense funds. In the legislative branch, legal expense funds are governed by House and Senate legal expense fund regulations. *See* House Committee on Ethics, ''Contributions to a Legal Expense Fund,'' U.S. House of Representatives, *http://ethics.house.gov/contributions-legal-expense-fund;* and Senate Select Committee on Ethics, Senate Ethics Manual, Government Printing Office, 2003, *https://www.ethics.senate.gov/downloads/pdffiles/manual.pdf,* pages 30–31. OGE's role has been limited to providing guidance to help ensure that executive branch employees who may receive distributions from a legal expense fund will be in compliance with the ethics laws and rules if they accept such a distribution. *See* OGE Legal Advisory LA–17–10 (2017). However, this limited approach to legal expense funds does not fully address potential appearance concerns with the creation and operation of legal expense funds for the benefit of executive branch employees.

Accordingly, OGE is seeking stakeholder input through this advance notice of proposed rulemaking, to request input on issues specifically related to legal expense funds, including, but not limited to, the following topics:

1. Donors and donations to legal expense funds. For example:

a. Should there be limitations on the types of donors to legal expense funds? If so, what should those limitations be? Why?

b. Should there be contribution limits to legal expense funds? If so, what should that amount be? Why?

c. Should donations of *pro bono* legal services to legal expense funds be permitted? Why or why not? Should employess be allowed to accept *pro bono* services outside of a legal expense fund? Why or why not?

2. Beneficiaries of and use of funds from legal expense funds. For example:

a. Should there be limits on the permissible beneficiaries? If so, what should those limits be and why?

b. Should there be limits on the number of eligible beneficiaries for a legal expense fund? Why or why not?

c. What limits, if any, should there be on permissible uses of donated funds?

3. Transparency of legal expense funds. For example:

a. Should the document establishing the legal expense fund be required to be publicly disclosed? Why or why not?

b. Should contributions be subject to reporting requirements? If so, should there be a threshold amount for disclosure? What type of information should be disclosed and what should the requirements for disclosure be? Why?

c. Should any disclosure information be made publicly available? If disclosure information is made publicly available, how and where should the information be disclosed?

4. Establishment, management, and termination of legal expense funds. For example:

a. Should legal expense funds be the exclusive mechanism for employees to receive contributions toward legal assistance? Why or why not?

b. What types of requirements should be imposed on legal expense fund trustees or managers, if any?

c. Should there be any restrictions on the legal structure used to establish a legal expense fund (*e.g.,* trust, limited liability company, etc.)? Why or why not?

d. What entities, if any, should have oversight authority over legal expense funds? Why?

e. Should there be limitations on solicitation of donations to a legal expense fund? If so, what limitations should be placed on solicitations and why?

f. What, if any, requirements should there be concerning how legal expense funds can be terminated? Why?

g. Should existing legal expense funds be required to conform to new regulations? Why or why not?

OGE invites input from all interested members of the public and encourages commenters to provide explanations and support for their answers or preferred policy positions.

Submit a Written Comment

To submit a written comment to OGE regarding this advance notice of proposed rulemaking, please email *usoge@oge.gov,* send a fax to: (202) 482–9237, or submit a paper copy to: Office of Government Ethics, Suite 500, 1201 New York Avenue NW, Washington, DC 20005–3917. Individuals must include OGE's agency name and the words ''Legal Expense Fund Regulation'' in all written comments. All written comments, including attachments and other supporting materials, will become part of the public record and be subject to public disclosure. Written comments may be posted on OGE's website, *www.oge.gov.* Sensitive personal information, such as account numbers or Social Security numbers, should not be included. Written comments generally will not be edited to remove any identifying or contact information.

Virtual Public Hearing

In addition to accepting written comments, OGE will hold a virtual public hearing on May 22, 2019 from

1:00 p.m. to 4:00 p.m. EST. Individuals who would like to present comments at the public hearing must register by sending an email to *usoge@oge.gov.* Registration will be accepted until May 17, 2019. The email should include ''Legal Expense Fund Hearing'' in the subject line and include the name of the presenter along with the general topic(s) the individual would like to address. OGE will make scheduling determinations on a first-come, first-served basis based on the time and date the email was received. Each participant will be limited to five minutes, and OGE will notify registrants of the time slot reserved for them. An individual may make only one presentation at the public hearing. OGE reserves the right to reject the registration of an entity or individual that is affiliated with an entity or individual that is already scheduled to present comments, and to select among registrants to ensure that a broad range of entities and individuals is allowed to present. Participation in the virtual public hearing does not preclude any entity or individual from submitting a written comment.

Registration is also required to listen to the the public hearing. Please email *usoge@oge.gov* to receive the call-in number. Registration will be accepted until May 17, 2019. The virtual public hearing also will be recorded and a transcript of the hearing will be posted on OGE's website, *www.oge.gov.*

Approved: April 10, 2019.

Emory Rounds,

Director, U.S. Office of Government Ethics.

[FR Doc. 2019–07390 Filed 4–12–19; 8:45 am]

BILLING CODE 6345–03–P

SMALL BUSINESS ADMINISTRATION

13 CFR Part 120

RIN 3245–AG97

Streamlining and Modernizing Certified Development Company Program (504 Loan Program) Corporate Governance Requirements

AGENCY: U.S. Small Business Administration.

ACTION: Proposed rule.

SUMMARY: This rule proposes to streamline and update the operational and organizational requirements for Certified Development Companies (CDCs) in order to improve efficiencies and reduce costs without unduly increasing risk in the 504 Loan Program. The proposed changes include streamlining the requirements that would apply to the corporate governance of CDCs, and updating the requirements that would apply to professional services contracts entered into by CDCs, the requirements related to the audit and review of a CDC's financial statements, and the requirements related to the balance that a PCLP CDC must maintain in its Loan Loss Reserve Fund.

DATES: The U.S. Small Business Administration (SBA) must receive comments on this proposed rule on or before June 14, 2019.

ADDRESSES: You may submit comments, identified by RIN: 3245–AG97, by any of the following methods:

- *Federal eRulemaking Portal: http://www.regulations.gov.* Follow the instructions for submitting comments.
- *Mail:* Linda Reilly, Chief, 504 Program Branch, Office of Financial Assistance, Small Business Administration, 409 3rd Street SW, Washington, DC 20416.
- *Hand Delivery/Courier:* Linda Reilly, Chief, 504 Program Branch, Office of Financial Assistance, Small Business Administration, 409 3rd Street SW, Washington, DC 20416.

SBA will post all comments on *http://www.regulations.gov.* If you wish to submit confidential business information (CBI) as defined in the User Notice at *http://www.regulations.gov,* please submit the information to Linda Reilly, Chief, 504 Program Branch, Office of Financial Assistance, Small Business Administration, 409 3rd Street SW, Washington, DC 20416. Highlight the information that you consider to be CBI and explain why you believe SBA should hold this information as confidential. SBA will review the information and make the final determination whether it will publish the information.

FOR FURTHER INFORMATION CONTACT: Linda Reilly, Chief, 504 Program Branch, Office of Financial Assistance, Small Business Administration, 409 3rd Street SW, Washington, DC 20416; telephone: 202–205–9949; email: *linda.reilly@sba.gov.*

SUPPLEMENTARY INFORMATION:

I. Background

The 504 Loan Program is an SBA financing program authorized under Title V of the Small Business Investment Act of 1958, 15 U.S.C. 695 *et seq.* The core mission of the 504 Loan Program is to provide long-term financing to small businesses for the purchase or improvement of land, buildings, and major equipment in an effort to facilitate the creation or retention of jobs and local economic development. Under the 504 Loan Program, loans are made to small businesses by Certified Development Companies (CDCs), which are certified and regulated by SBA to promote economic development within their community. In general, a project in the 504 Loan Program (a 504 Project) is financed with: A loan obtained from a private sector lender with a senior lien covering at least 50 percent of the project cost (the Third Party Loan); a loan obtained from a CDC (the 504 Loan) with a junior lien covering up to 40 percent of the total cost (backed by a 100 percent SBA-guaranteed debenture sold in private pooling transactions); and a contribution from the Borrower of at least 10 percent equity.

II. Proposed Changes to CDC Operational and Organizational Requirements

SBA is proposing to simplify, streamline, and update SBA's regulations relating to CDC operational and organizational requirements in order to improve efficiencies and achieve cost savings without compromising performance in the 504 Loan Program. To accomplish this goal, SBA proposes to amend the following sections in 13 CFR part 120:

A. Section 120.818 Applicability to Existing For-Profit CDCs

Prior to 2014, 13 CFR 120.822 required CDCs to have a membership consisting of at least 25 members. This provision also provided that ''no person or entity can own or control more than 10 percent of the CDC's voting membership (or stock).'' When SBA removed the CDC membership requirement in 2014, the prohibition against any person or entity owning or controlling more than 10 percent of a for-profit CDC's voting stock was inadvertently eliminated. *See* 79 FR 15641 (March 21, 2014). SBA is proposing to reinstate this provision by adding it to § 120.818. The purpose of the 10 percent limit on stock ownership is to ensure that no one person or entity can control a for-profit CDC.

B. Section 120.823 CDC Board of Directors

SBA proposes to amend § 120.823(a) by lowering the minimum number of directors required for the CDC's Board from nine (9) to seven (7). To satisfy SBA's quorum requirements set forth in § 120.823(c)(2), a Board with nine directors must have at least five directors present in order to hold a meeting. SBA is aware of the difficulty that some small and mid-sized CDCs have in satisfying the quorum

requirements for Board meetings based on a nine-member Board. Although CDCs may, under the current rule, request that SBA approve a Board with fewer members than nine for good cause, SBA has decided to reduce the required minimum number of Board members to seven, which will lower the number of members needed for a quorum from five to four. SBA has also determined that each CDC should be permitted to determine the maximum number of members on its Board and is, therefore, proposing to remove the recommendation in § 120.823(a) that a CDC have no more than 25 voting Directors on the Board. For consistency, SBA is proposing to reduce the number of members needed for a quorum of the CDC's Loan Committee under § 120.823(d)(4)(ii)(B) from five to four.

SBA is also proposing to insert language in § 120.823(a) to make it clear that Board members are required to live or work in the CDC's Area of Operations. Historically, SBA interpreted former § 120.822(b) (*see, e.g.,* 13 CFR 120.822(b)(2013)) to require CDC Board members to live or work in the CDC's Area of Operations. However, the regulatory text supporting this interpretation was removed when the CDC membership requirement set forth in § 120.822 was removed in 2014. *See* 79 FR 15641 (March 21, 2014). SBA notes that, with certain exceptions, the current regulations require Loan Committee members to live or work in the Area of Operations of the State where the 504 Project they are voting on is located. To be consistent, SBA is proposing to revise the regulations to expressly apply this requirement, with a slight modification in the wording (explained below), to Board members as well since the Board is required to vote on projects greater than $2 million and, if no Loan Committee is established, on projects less than $2 million.

In addition, the intent of this requirement—that Board members have a local connection to the area in which the CDC operates—would also be served by allowing Board members to live or work in an area that, although not in the CDC's Area of Operations, is contiguous to the Area and meets the definition in § 120.802 of a Local Economic Area (LEA) for the CDC, such as a metropolitan statistical area that is bisected by a State line. SBA is therefore proposing to amend § 120.823(a) to allow Board members to satisfy the ''work or live in'' requirement in this manner. For consistency, SBA is proposing to amend § 120.823(d)(4)(ii)(E) to allow Loan Committee members to satisfy the ''work or live in'' requirement by working or living in an area that meets the definition of an LEA as well.

SBA is also proposing to simplify the phrase ''live or work in the Area of Operations of the State where the 504 project they are voting on is located''. Today, the minimum Area of Operations for each CDC is the State in which the CDC is incorporated. *See* § 120.802 (Definition of ''Area of Operations''). It would, therefore, be simpler to replace this phrase with ''live or work in the CDC's State of incorporation''.

In addition, SBA proposes to delete the requirement in § 120.823(a) that requires CDCs to have at least one voting director who represents the economic, community, or workforce development fields. By removing this requirement, SBA is clarifying that a CDC need not appoint a director who has expertise only in the economic, community, or workforce development fields. Instead, SBA is proposing to add ''the economic, community, or workforce development fields'' to the other areas of expertise identified in the current § 120.823(a) that must be represented on the Board. The five other areas of expertise that must be represented on the Board include internal controls, financial risk management, commercial lending, legal issues relating to commercial lending, and corporate governance. For purposes of complying with the representational requirements in § 120.823(a), one director may have more than one area of expertise.

SBA is also proposing to remove the requirement in § 120.823(c)(4) that limits the number of directors in the commercial lending field to less than 50% of the Board of Directors. With this change, SBA would allow CDCs to determine the number of directors on the Board who have a commercial lending background. By requiring that the Board include members with background and expertise in the six identified areas, SBA believes that proposed § 120.823(a) would ensure an appropriate level of diversity of experience on the Board.

C. Section 120.824 Professional Management and Staff

1. Professional Services Contracts Between CDCs

A CDC may currently obtain, under a written contract that is pre-approved by SBA, services from qualified individuals and entities to perform management, marketing, packaging, processing, closing, servicing, or liquidation functions in accordance with the requirements set forth in § 120.824(a) through (f). Known as professional services contracts, a few CDCs have contracted with other CDCs to obtain assistance under this provision (although none are obtaining management services from another CDC). The type of relationship that may be created between CDCs through these contracts is limited by § 120.820(d), which prohibits a CDC from affiliating (as determined in accordance with 13 CFR 121.103) with another CDC.

SBA believes that some smaller CDCs may benefit from the assistance available from their larger counterparts that operate in the same SBA Region or in contiguous States, and SBA is proposing to permit a CDC to enter into a professional services contract with another CDC under certain conditions, even if the arrangement would give rise to an affiliation between the CDCs based on an ''identity of interest'', as defined under 13 CFR 121.103(f).[1] With this rulemaking, SBA is proposing to establish the conditions under which a CDC may contract with another CDC for marketing, packaging, processing, closing, servicing, or liquidation functions. Specifically, SBA proposes to incorporate the existing provisions of § 120.824(a) through (f) into a new paragraph (a), which would address professional services contracts generally (*i.e.,* between a CDC and any third party), and is proposing the following conditions as a new paragraph (b), which would specifically address professional services contracts *between* CDCs:

(a) Prior Approval of Contracts

The contract between the CDCs for marketing, packaging, processing, closing, servicing, or liquidation functions must be pre-approved by the Director of the Office of Financial Assistance (D/FA) (or designee), in consultation with the Director of the Office of Credit Risk Management (D/OCRM) (or designee), who will determine in his or her discretion that such approval is in the best interests of the 504 Loan Program and that the contract includes terms and conditions satisfactory to SBA.

SBA notes that, generally, a CDC is required under the current § 120.824(a) (to be redesignated as § 120.824(a)(1)) to have at least one salaried professional that is employed directly by the CDC as

[1] Under 13 CFR 121.103(f), an identity of interest is created when the CDCs have identical or substantially identical business or economic interests or are economically dependent through contractual or other relationships. For example, under § 121.103(f), if all or most of the CDC's key functions (including 504 and non-504 functions in the aggregate) are performed by staff that is obtained under contract with another CDC, the two CDCs may be affiliated based on an identity of interest.

its full time manager. Currently, a CDC may seek a waiver of this requirement and SBA's prior approval of a contract for management services from another CDC only if the CDC in need of management services is located in a rural area and satisfies the other conditions for a waiver of the management requirement, as set forth in the current § 120.824(a)(2) (to be redesignated as § 120.824(a)(1)(ii)). This proposed rule would not change these provisions, except that SBA proposes to require that a rural CDC's contract for management services must be pre-approved by the D/FA (or designee) in consultation with the D/OCRM (or designee), instead of pre-approved by the D/FA only.

SBA also notes that a CDC may petition for a waiver of the management requirement under the current § 120.824(a)(1) (to be redesignated as § 120.824(a)(1)(i)) to obtain management services from another non-profit entity under certain conditions. SBA has interpreted this provision to mean that the other non-profit entity may not be another CDC. To make this clear, SBA is proposing to expressly state in the redesignated § 120.824(a)(1)(i) that the non-profit entity from which a CDC may obtain management services cannot be another CDC. The proposed rule would continue to require that the contract and request for waiver must be pre-approved by the D/FA (or designee), but it would add that this approval must be done in consultation with the D/OCRM (or designee).

(b) CDCs Must Be Located in Same SBA Region or Contiguous States

The CDCs entering into the contract must be located either in the same SBA Region or, if not in the same SBA Region, must be located in contiguous States. For purposes of this provision, the location of a CDC is the CDC's State of incorporation. SBA does not want a CDC to be able to use professional services contracts with other CDCs as a means to establish a presence outside of its home SBA Region or a contiguous State. This is consistent with the history and purpose of the program as a local development program, where CDCs are closely tied to the localities in which they lend and perform other economic development activities. For any CDC that currently provides services under contract to another CDC outside the allowed areas, the CDCs would be permitted to continue the contract until the term of the current contract expires.

(c) Assistance May Be Provided to Only One CDC per State

A CDC may provide assistance to only one CDC per State. SBA does not want any one CDC to be able to use professional services contracts with other CDCs in a way that discourages new CDCs from forming in a State or that is detrimental to the viability of existing CDCs in the State.

(d) Other Geographic Limits on Where CDCs May Provide Assistance

No CDC may provide assistance to another CDC in its State of incorporation or in any State in which the CDC has Multi-State authority. Again, SBA does not want any one CDC to be able to use professional services contracts with other CDCs in a way that discourages new CDCs from forming in a State or that is detrimental to the viability of existing CDCs in the State. SBA would also like to solicit comments from the public on whether SBA should place any limitations on the ability of a CDC that has expanded its operations into a Local Economic Area to provide assistance to another CDC that operates in the LEA.

(e) Independent CDCs

The Board of Directors for each CDC entering into the contract must be separate and independent and may not include any common directors, whether voting or non-voting. In addition, if either of the CDCs is for-profit, neither CDC may own any stock in the other CDC (notwithstanding § 120.820(d), which allows a CDC to invest in or finance another CDC with the prior written approval of SBA officials). SBA wants the CDCs to retain the independence and control provided by separate Boards and does not want a CDC to be able to exercise any degree of control over another CDC through any ownership interest in the other CDC. In addition, the CDCs are prohibited from comingling any funds.

(f) Other Requirements That Apply to These Contracts

The CDCs and the contract must comply with the other requirements for professional services contracts set forth in proposed § 120.824(a). A contract between CDCs may not include either services for independent loan reviews or management services (except for rural CDCs as provided in accordance with redesignated § 120.824(a)(1)(ii)). In addition, affiliation between CDCs based on grounds other than identity of interest, including but not limited to through common management or ownership under § 121.103(c) and (d), respectively, would continue to be prohibited.

2. Other Changes That Would Apply to All Professional Services Contracts

SBA proposes to incorporate the provisions currently set forth in 13 CFR 120.824(a) through (f) into a new paragraph (a) that would apply to all professional services contracts (including professional services contracts between CDCs) with the following changes:

(a) Contracts Requiring Prior Approval

The types of contracts that a CDC may enter into, with SBA's prior approval, are listed in current § 120.824(b), and include contracts for assistance in management, marketing, packaging, processing, closing, servicing, or liquidation functions. SBA wants to clarify in this rule that the CDC must obtain SBA's prior approval of co-employment contracts that a CDC wants to enter into with a third party, such as a professional employer organization, to obtain employee benefits, such as retirement and health benefits, on a more cost-effective basis for the CDC's staff. The contracts that some CDCs have submitted to SBA for prior approval have provided that the CDC's staff were deemed to be the co-employees of both the CDC and the contractor. SBA wants CDCs and their staff to be able to obtain the cost savings and benefits that can be obtained under these types of contracts, but wants to ensure that the contract provides that the CDC retains the final authority to hire and fire the CDC's staff.

In addition, under the current regulation, CDCs may contract for legal and accounting services without SBA approval, except for legal services in connection with loan liquidation or litigation. SBA is proposing to include services for information technology and independent loan reviews in the types of contracts listed in current 120.824(b) (to be redesignated as § 120.824(a)(2)) that CDCs may enter into without obtaining prior SBA approval. As indicated in section II.C.1(f) above, however, CDCs may not contract with other CDCs for the performance of independent loan reviews.

(b) Other Clarifying and Technical Changes

Under the current § 120.824(e)(1), the CDC's Board must demonstrate to SBA that ''the compensation under the [professional services] contract is only from the CDC''. For clarity, SBA is proposing to revise this provision (to be redesignated as § 120.824(a)(3)(i)) to state that ''the compensation under the contract is paid only by the CDC.'' In

addition, in the current § 120.824(e)(3), the CDC's Board must demonstrate that the contracts do not ''evidence'' any actual or apparent conflict of interest or self-dealing. For clarity, SBA is proposing to revise this provision (to be redesignated as § 120.824(a)(3)(iii)) to require the Board to demonstrate that there is no actual or apparent conflict of interest or self-dealing in the negotiation, approval or implementation of the contract.

In addition, under the current § 120.824(d), the CDC must provide copies of these contracts to SBA for review annually. SBA is proposing to revise this provision (to be redesignated as § 120.824(a)(5)) to clarify that the CDC procuring the services must provide a copy of all executed contracts to SBA as part of the CDC's Annual Report submitted under § 120.830(a) unless the CDC certifies that it has previously submitted an identical copy of the contract to SBA.

Another change being proposed concerns the current § 120.824(c), under which the contracts must clearly identify terms and conditions satisfactory to SBA that permit the CDC to terminate the contract prior to its expiration date on a reasonable basis. To give CDCs procuring services maximum flexibility, SBA is proposing to revise the standard under which the CDC procuring the services may terminate the contract to ''with or without cause''. SBA is proposing to add this requirement to the current § 120.824(e)(2) (to be redesignated as § 120.824(a)(3)(ii)).

Finally, under the current § 120.824(f), no contractor or Associate of a contractor may be a voting or non-voting member of the CDC's Board. The term ''Associate'' is generally defined in § 120.10 with respect to a lender, CDC or small business, but not with respect to a contractor of a CDC. SBA is proposing therefore to replace the phrase ''Associate of a contractor'' with text that is consistent with the definition of Associate in § 120.10.

D. Section 120.826 Basic Requirements for Operating a CDC

Under the current § 120.826(c), each CDC with a 504 loan portfolio balance of $20 million or more must have its financial statements audited annually by a certified public accountant (CPA) that is independent and experienced in auditing financial institutions, and each CDC with a 504 loan portfolio balance of less than $20 million must have its financial statements reviewed annually. SBA is proposing to revise this paragraph by increasing the dollar threshold that would trigger an annual audit requirement of the CDC's financial statements from $20 million to $30 million. For loan portfolio balances of less than $30 million, the CDC's financial statements would be required to be reviewed by an independent CPA in accordance with generally accepted accounting principles (GAAP). However, under the proposed change, a CDC with a portfolio balance of less than $30 million may be required to provide audited financial statements at the discretion of the D/OCRM when the CDC is in material noncompliance with SBA's Loan Program Requirements (defined in § 120.10), such as with requirements related to financial solvency or business integrity. SBA notes that CDCs that participate in other SBA programs, such as the Community Advantage Pilot Loan Program or the Microloan Program, must continue to comply with the audit requirements of those other SBA programs.

There are currently 19 CDCs (about 9% of all CDCs) with portfolio balances of at least $20 million but less than $30 million. By increasing the dollar threshold for audited financial statements to $30 million, these 19 CDCs would save the difference in cost between an audited and a reviewed financial statement, which SBA estimates to be $15,000 annually for each CDC, without unduly increasing risk. There are currently 60 CDCs (about 28% of all CDCs) with portfolio balances under $20 million. Therefore, a total of 79 CDCs (about 37% of all CDCs) would not be required to provide audited financial statements unless, as noted above, circumstances warrant.

E. Section 120.835 Application To Expand an Area of Operations

Under the current § 120.835(c), a CDC is required to establish a separate Loan Committee in each State into which it expands as a Multi-State CDC and all of the members of that Loan Committee must live or work in the State into which the CDC expands. SBA is proposing to amend paragraph (c) of § 120.835 to offer the following alternative to establishing a Loan Committee in each such additional State: If the CDC has established a Loan Committee in its State of incorporation, then when voting on a Project in the additional State, the CDC may include at least two individuals who live or work in that State on the CDC's Loan Committee. To make it clear that the two individuals added to the Loan Committee may vote only on the Projects located in the additional State into which the CDC expands and would not be eligible to participate in voting on Projects in any other State, SBA is proposing to add the term ''only'' after ''[c]onsist'' in § 120.823(d)(4)(ii)(E). If the CDC has not established a Loan Committee in its State of incorporation, the alternative would require that at least two individuals who live or work in the additional State be included on the CDC's Board of Directors when voting on a Project in that State.

This alternative to the separate Loan Committee requirement would reduce the time and expense that a CDC incurs in establishing and maintaining a separate Loan Committee in each State into which it expands, while still requiring a local connection when the Board or its Loan Committee votes on these Multi-State projects. With this change, Multi-State CDCs would have an alternative to establishing a separate Loan Committee in each State in which they operate.

If the proposed revision to § 120.835(c) discussed in the preceding two paragraphs is adopted, it will be necessary to make a conforming change to the current § 120.823(d)(4)(ii)(E). In addition, as noted above in section II.B, SBA is proposing to simplify the phrase in the current regulation that members must ''live or work in the Area of Operations of the State where the 504 project they are voting on is located''. As noted above, the minimum Area of Operations is the State in which the CDC is incorporated. It would, therefore, be simpler to replace this phrase with ''live or work in the CDC's State of incorporation''. In addition, with this change, it would no longer be necessary to provide an exception in § 120.823(d)(4)(ii)(E) for projects that ''fall[ ] under one of the exceptions listed in § 120.839''. Under the proposed revision, the CDC's Loan Committee established under § 120.823(d)(4)(ii)(E) would be able to approve projects that fall under § 120.839 and SBA is, therefore, proposing to remove the reference to § 120.839.

F. Section 120.839 Case-by-Case Application To Make a 504 Loan Outside of a CDC's Area of Operations

Section 120.839 currently permits a CDC to make a 504 loan outside of a CDC's Area of Operations if certain conditions are satisfied, including that the CDC has previously assisted the business to obtain a 504 loan. SBA is proposing to expand paragraph (a) of this section to allow a CDC to apply to make a 504 loan outside its Area of Operations if the CDC has previously assisted either the business ''or its affiliate(s).'' SBA believes that, if the CDC had previously assisted an affiliate of the business, the CDC would have sufficient familiarity with the business'

management and credit risk to prudently assist the business.

G. Section 120.847 Requirements for the Loan Loss Reserve Fund (LLRF)

Currently, CDCs that participate in the Premier Certified Lenders Program (PCLP CDCs) are required to establish and maintain an LLRF in an amount equal to one percent of the original principal amount of the PCLP Debentures issued by the CDC. The amount maintained in the LLRF for each PCLP Debenture remains the same even as the principal balance of the Debenture is paid down over time.

SBA is proposing to revise paragraph (b) of this section to allow PCLP CDCs to maintain a balance in the LLRF equal to one percent of the current principal amount, instead of the original principal amount, of the PCLP Debenture after the loan is seasoned for 10 years. However, a CDC may not use the declining balance methodology: (1) With respect to any PCLP Debenture that has been purchased, in which case the CDC must restore the balance maintained in the LLRF with respect to that Debenture to one percent of the original principal amount within 30 days after purchase; or (2) with respect to any other PCLP Debenture if SBA notifies the CDC in writing that it has failed to satisfy the requirements in paragraphs (e), (f), (h), (i) and (j) of § 120.847. In the latter case, the CDC will not be required to restore the balance maintained in the LLRF to one percent of the original principal amount of the Debenture but must base the amount maintained in the LLRF on one percent of the principal amount of the Debenture as of the date of notification. The CDC may not begin to use the declining balance methodology again until SBA notifies the CDC in writing that SBA has determined, in its discretion, that the CDC has corrected the noncompliance and has demonstrated its ability to comply with these requirements.

For example, if a CDC fails to timely submit one or more periodic loan loss reserve reports under § 120.847(f) (which are required to be submitted on a quarterly basis pursuant to SBA Form 2233), SBA would notify the CDC that it may no longer use the declining balance methodology. The CDC would not be required to restore the balance maintained in the LLRF to one percent of the original principal amount of the Debenture, but would be required to maintain an amount based on one percent of the principal amount of the Debenture as of the date of notification. Upon the CDC's submission of the delinquent report(s), SBA would notify the CDC that it may again use the declining balance methodology based on the original principal amount if SBA determines the CDC is able to comply with the reporting requirement going forward.

By allowing PCLP CDCs to utilize a declining balance methodology for each Debenture that is at least 10 years old, more cash would be available to support the CDC's operations or to invest in other economic development activities without unduly increasing risk. All withdrawals must be made in accordance with the requirements of § 120.847(g). This provision currently requires the CDC to forward requests for withdrawals to the Lead SBA Office, but SBA is proposing to change the official to whom withdrawal requests should be forwarded to the D/OCRM (or designee). If the change in permitted use of the declining balance methodology is adopted, SBA will monitor whether the adequacy of the CDC's LLRF is affected.

III. Compliance With Executive Orders 12866, 13563, 12988, 13771, and 13132, the Paperwork Reduction Act (44 U.S.C. Ch. 35), and the Regulatory Flexibility Act (5 U.S.C. 601–612)

Executive Order 12866

The Office of Management and Budget (OMB) has determined that this proposed rule is not a ''significant'' regulatory action for the purposes of Executive Order 12866. In addition, this is not a major rule under the Congressional Review Act, 5 U.S.C. 800.

Executive Order 13563

The agency coordinated outreach efforts to engage stakeholders before proposing this rule. The 504 Loan Program operates through the agency's lending partners, which for this program are CDCs. The agency has participated in lender conferences and trade association meetings and received feedback from CDCs, a trade association, and third-party lenders that provided valuable insight to SBA.

Executive Order 13771

This proposed rule is not expected to be an E.O. 13771 regulatory action because this proposed rule is not significant under E.O. 12866.

Executive Order 12988

This action meets applicable standards set forth in Sections 3(a) and 3(b)(2) of Executive Order 12988, Civil Justice Reform, to minimize litigation, eliminate ambiguity, and reduce burden. The action does not have retroactive or preemptive effect.

Executive Order 13132

SBA has determined that this proposed rule will not have substantial, direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, for the purposes of Executive Order 13132, SBA has determined that this proposed rule has no federalism implications warranting preparation of a federalism assessment.

Paperwork Reduction Act, 44 U.S.C., Ch. 35

SBA has determined that this proposed rule would require that SBA Form 1253, Certified Development Company (CDC) Annual Report Guide (OMB Approval 3245–0074), be revised to clarify or add information that CDCs are required to submit with their Annual Report. With respect to the Financial Report (Tab 3) of the form, a CDC is currently allowed to submit a reviewed financial statement instead of an audited financial statement if it has a 504 loan portfolio balance of less than $20 million. This proposed rule would raise this threshold to $30 million and, if adopted, it will be necessary to revise the instruction in the form accordingly. The substance of the information that would be collected is not being changed, only that fewer CDCs would need to submit it.

In addition, with respect to the Operating Report (Tab 2) of SBA Form 1253, the CDC is currently required to submit a copy of all contracts for management and/or staff in place during the reporting period. The types of contracts in question, as currently described in the regulations (*e.g.,* managing, marketing, servicing, etc.), are the same contracts that must be submitted to SBA for pre-approval; however, the list does not specifically identify co-employment contracts under which a third party (such as a professional employer organization) is responsible for the management and administration of certain employment benefits, such as retirement and health benefits. Accordingly, the form would be changed to clarify that SBA must pre-approve these contracts.

SBA has also determined that, as currently written, the requirement to submit a copy of all contracts with the Annual Report could result in duplicative reporting since CDCs should have provided SBA with an executed copy of any contract after obtaining SBA's prior approval. As a result, SBA is proposing to revise this requirement

to make it clear that CDCs would no longer be required to submit a copy of its contracts with the Annual Report if a copy of the current and executed contract has been previously submitted to SBA. The CDC would be required to provide a certification with its Annual Report that it has previously submitted a copy of the executed contract to SBA and that no changes have been made to it. The certification would also need to state to whom and on what date the contract was provided to SBA.

Another form that would require a change as a result of this proposed rule is SBA Form 2233, Premier Certified Lenders Program (PCLP), Quarterly Loan Loss Reserve Report (OMB Approval 3245–0346). This form instructs the PCLP CDC to submit the completed form to the ''Lead SBA Office''. This proposed rule would change the office to which this form is submitted to the ''Office of Credit Risk Management'', and this form would be revised accordingly.

SBA invites comments on the proposed changes to the underlying regulations that would impact these forms by the deadline for comments noted in the **DATES** section. SBA has determined that the changes proposed for the forms described above are not substantive in nature and do not need to be submitted to OMB for approval.

Regulatory Flexibility Act, 5 U.S.C. 601–612

When an agency issues a rulemaking, the Regulatory Flexibility Act (RFA), 5 U.S.C. 601–612, requires the agency to ''prepare and make available for public comment an initial regulatory analysis'' which will ''describe the impact of the proposed rule on small entities.'' Section 605 of the RFA allows an agency to certify a rule, in lieu of preparing an analysis, if the proposed rulemaking is not expected to have a significant economic impact on a substantial number of small entities. Although the rulemaking will impact all 215 CDCs (all of which are small), SBA does not believe the impact will be significant. As stated above, the proposed rule will streamline the operational and organizational requirements that CDCs must satisfy and reduce their costs, and therefore will not increase their burden.

For example, under the proposed rule, the 19 CDCs that currently have 504 loan portfolio balances between $20 million and $30 million would no longer be required to provide audited financial statements, but may submit reviewed financial statements instead. As noted above, SBA estimates that the elimination of the audited review for these CDCs will save each CDC approximately $15,000 per year.

In addition, SBA is proposing to reduce the regulatory requirements imposed on CDCs related to corporate governance. For example, SBA is proposing to decrease the number of members that a CDC is required to appoint to its Board of Directors from nine to seven. This change would also make it easier for a CDC to meet the quorum requirements for conducting its business. SBA is also proposing to expand the area in which Board and Loan Committee members may work or live; remove the limit on the number of members that may serve on the Board from the commercial lending fields; allow CDCs in need of assistance to contract for services with another CDC under certain circumstances even if the CDCs would become affiliated as a result; eliminate the requirement that CDCs establish a separate Loan Committee in each State into which the CDC expands as a Multi-State CDC; and expand the criteria under which a CDC may make a 504 loan outside its Area of Operations.

Another significant change being proposed is the reduction in the amount that PCLP CDCs need to maintain in the Loan Loss Reserve Fund. By allowing PCLP CDCs to utilize a declining balance methodology for the LLRF after a Debenture has been outstanding for 10 years, more cash would be available to support the CD'C's operations or to invest in other economic development activities without unduly increasing risk.

SBA believes that this rule is SBA's best available means for facilitating American job preservation and creation by removing unnecessary regulatory requirements. Since the main purpose of this proposed rule is to reduce unnecessary regulatory burdens, a review of the preamble sections above will provide additional detailed explanations regarding how and why this proposed rule will reduce regulatory burdens and responsibly increase program participation flexibility. For these reasons, SBA has determined that there is no significant impact on a substantial number of small entities.

List of Subjects in 13 CFR Part 120

Community development, Equal employment opportunity, Loan programs—business, Reporting and recordkeeping requirements, Small business.

For the reasons stated in the preamble, SBA proposes to amend 13 CFR part 120 as follows:

PART 120—BUSINESS LOANS

■ 1. The authority for 13 CFR part 120 continues to read as follows:

Authority: 15 U.S.C. 634(b)(6), (b)(7), (b)(14), (h) and note, 636(a), (h) and (m), 650, 687(f), 696(3) and (7), and 697(a) and (e); Public Law 111–5, 123 Stat. 115, Public Law 111–240, 124 Stat. 2504.

■ 2. Amend § 120.818 by designating the undesignated paragraph as paragraph (a) and adding paragraph (b) to read as follows:

§ 120.818 Applicability to existing for-profit CDCs.

* * * * *

(b) No person or entity can own or control more than 10 percent of a for-profit CDC's stock.

■ 3. Amend § 120.823 by:
■ a. Revising paragraph (a);
■ b. Adding the word ''and'' at the end of paragraph (c)(3);
■ c. Removing paragraph (c)(4) and redesignating paragraph (c)(5) as paragraph (c)(4); and
■ d. Revising paragraphs (d)(4)(ii)(B) and (E).

The revisions read as follows:

§ 120.823 CDC Board of Directors.

(a) The CDC, whether for-profit or nonprofit, must have a Board of Directors with at least seven (7) voting directors who live or work in the CDC's State of incorporation or in an area that is contiguous to that State that meets the definition of a Local Economic Area for the CDC. The Board must be actively involved in encouraging economic development in the Area of Operations. The initial Board may be created by any method permitted by applicable State law. At a minimum, the Board must have directors with background and expertise in internal controls, financial risk management, commercial lending, legal issues relating to commercial lending, corporate governance, and economic, community or workforce development. Directors may be either currently employed or retired.

* * * * *

(d) * * *

(4) * * *

(ii) * * *

(B) Have a quorum of at least four (4) Loan Committee members authorized to vote;

* * * * *

(E) Consist only of Loan Committee members who live or work in the CDC's State of incorporation or in an area that meets the definition of a Local Economic Area for the CDC, except that, for Projects that are financed under a CDC's Multi-State authority, the CDC must satisfy the requirements of either

§ 120.835(c)(1) or (2) when voting on that Project.

* * * * *

■ 4. Revise § 120.824 to read as follows:

§ 120.824 Professional management and staff.

A CDC must have full-time professional management, including an Executive Director (or the equivalent) to manage daily operations. It must also have a full-time professional staff qualified by training and experience to market the 504 Loan Program, package and process loan applications, close loans, service, and, if authorized by SBA, liquidate the loan portfolio, and to sustain a sufficient level of service and activity in the Area of Operations.

(a) *Professional services contracts.* Through a written contract with qualified individuals or entities, a CDC may obtain services for management, marketing, packaging, processing, closing, servicing, or liquidation functions, provided that:

(1) The CDC must have at least one salaried professional employee that is employed directly (not a contractor or an officer, director, 20% or more equity owner, or key employee of a contractor) on a full-time basis to manage the CDC. The CDC manager must be hired by the CDC's Board of Directors and subject to termination only by the Board. A CDC may petition SBA to waive the requirement of the manager being employed directly by the CDC if:

(i) Another non-profit entity (that is not a CDC) that has the economic development of the CDC's Area of Operations as one of its principal activities will provide management services to the CDC and, if the manager is also performing services for the non-profit entity, the manager will be available to small businesses interested in the 504 program and to 504 loan borrowers during regular business hours; or

(ii) The CDC petitioning SBA for such waiver is rural, has insufficient loan volume to justify having management employed directly by the CDC, and is requesting to contract with another CDC located in the same general area to provide the management.

(2) The contract must be pre-approved by the D/FA (or designee), except that with respect to contracts for management services and requests for waivers under paragraph (a)(1) of this section, the contract and request for waiver must be pre-approved by the D/FA (or designee) in consultation with the D/OCRM (or designee). With respect to any contract under which the CDC's staff are deemed co-employees of both the CDC and the contractor (*e.g.,* contracts with professional employer organizations to obtain employee benefits, such as retirement and health benefits, for the CDC's staff), the contract must provide that the CDC retains the final authority to hire and fire the CDC's employees. (CDCs may contract for legal, accounting, information technology, and independent loan review services without SBA approval, except for legal services in connection loan liquidation or litigation. In addition, a CDC may not contract with another CDC for independent loan review services.)

(3) If a CDC's Board believes that it is in the best interest of the CDC to obtain services under paragraph (a) of this section, the CDC's Board must explain its reasoning to SBA. The CDC's Board must demonstrate to SBA that:

(i) The compensation under the contract is paid only by the CDC obtaining the service, is reasonable and customary for similar services in the Area of Operations, and is only for actual services performed;

(ii) The full term of the contract (including options) is necessary and appropriate and the contract permits the CDC procuring the services to terminate the contract prior to its expiration date with or without cause; and

(iii) There is no actual or apparent conflict of interest of self-dealing on the part of any of the CDC's officers, management, and staff, including members of the Board and Loan Committee, in the negotiation, approval or implementation of the contract.

(4) Neither the contractor nor any officer, director, 20% or more equity owner, or key employee of a contractor may be a voting or non-voting member of the CDC's Board.

(5) The CDC procuring the services must provide a copy of all executed contracts to SBA as part of the CDC's Annual Report submitted under § 120.830(a) unless the CDC certifies that it has previously submitted an identical copy of the executed contract to SBA.

(6) If the contract is between CDCs, the CDCs and the contract must comply with paragraph (b) of this section, and the contract may not include management services (except in accordance with paragraph (a)(1)(ii) of this section) or services for independent loan reviews.

(b) *Professional services contracts between CDCs.* Notwithstanding the prohibition in § 120.820(d) against a CDC affiliating with another CDC, a CDC may obtain services through a written contract with another CDC for marketing, packaging, processing, closing, servicing, or liquidation functions, provided that:

(1) The contract between the CDCs must be pre-approved by the D/FA (or designee), in consultation with the D/OCRM (or designee), who determines in his or her discretion that such approval is in the best interests of the 504 Loan Program and that the terms and conditions of the contract are satisfactory to SBA. A CDC may contract with another CDC for a management function only in accordance with paragraph (a)(1)(ii) of this section.

(2) The CDCs entering into the contract must be located in the same SBA Region or, if not located in the same SBA Region, must be located in contiguous States. For purposes of this paragraph (b)(2), the location of a CDC is the CDC's State of incorporation.

(3) A CDC may provide assistance to only one CDC per State.

(4) No CDC may provide assistance to another CDC in its State of incorporation or in any State in which the CDC has Multi-State authority.

(5) The Board of Directors for each CDC entering into the contract must be separate and independent and may not include any common directors. In addition, if either of the CDCs is for-profit, neither CDC may own any stock in the other CDC. The CDCs are also prohibited from comingling any funds.

(6) The contract must satisfy the requirements set forth in paragraph (a) of this section.

§ 20.826 [Amended]

■ 5. Amend § 120.826(c) by:

■ a. Removing the term ''$20 million'' wherever it appears and adding the term ''$30 million'' in its place;

■ b. Removing the period at the end of the last sentence and adding '', except that the D/OCRM may require a CDC with a portfolio balance of less than $30 million to submit an audited financial statement in the event the D/OCRM determines, in his or her discretion, that such audit is necessary or appropriate when the CDC is in material noncompliance with Loan Program Requirements.''

■ 6. Amend § 120.835(c) by:

■ a. Adding a paragraph heading;

■ b. Removing the last sentence and adding the phrase ''A CDC may apply to be a Multi-State CDC only if the State the CDC seeks to expand into is contiguous to the State of the CDC's incorporation and either:'' in its place; and

■ c. Adding paragraphs (c)(1) and (2).

The additions read as follows:

§ 120.835 Application to expand an Area of Operations.

* * * * *

(c) *Multi-State expansion.* * * *

(1) The CDC establishes a Loan Committee in the additional State consisting only of members who live or work in that State and that satisfies the other requirements in § 120.823(d)(4)(ii)(A) through (D); or

(2) For any Project located in the additional State, the CDC's Board or Loan Committee (if established in the CDC's State of incorporation) includes at least two members who live or work in that State when voting on that Project.

§ 120.839 [Amended]

■ 7. Amend § 120.839(a) by adding the words ''or its affiliate(s)'' after ''business''.

■ 8. Amend § 120.847 by:

■ a. Revising paragraph (b); and

■ b. Removing the term ''Lead SBA Office'' in third sentence of paragraph (g) and adding in its place ''the D/OCRM (or designee)''.

The revision reads as follows:

§ 120.847 Requirements for the Loan Loss Reserve Fund (LLRF).

* * * * *

(b) *PCLP CDC Exposure and LLRF deposit requirements.* A PCLP CDC's ''Exposure'' is defined as its reimbursement obligation to SBA with respect to default in the payment of any PCLP Debenture. The amount of a PCLP CDC's Exposure is 10 percent of any loss (including attorney's fees; litigation costs; and care of collateral, appraisal and other liquidation costs and expenses) sustained by SBA as a result of a default in the payment of principal or interest on a PCLP Debenture. For each PCLP Debenture a PCLP CDC issues, it must establish and maintain an LLRF equal to one percent of the original principal amount of the PCLP Debenture. The amount the PCLP CDC must maintain in the LLRF for each PCLP Debenture remains the same even as the principal balance of the PCLP Debenture is paid down over time except that, after the first 10 years of the term of the Debenture, the amount maintained in the LLRF may be based on one percent of the current principal amount of the PCLP Debenture (the declining balance methodology), as determined by SBA. All withdrawals must be made in accordance with the requirements of paragraph (g) of this section. A CDC may not use the declining balance methodology:

(1) With respect to any Debenture that has been purchased. Within 30 days after purchase, the CDC must restore the balance maintained in the LLRF for the Debenture that was purchased to one percent of the original principal amount of that Debenture; or

(2) With respect to any other Debenture if SBA notifies the CDC in writing that it has failed to satisfy the requirements in paragraph (e), (f), (h), (i) or (j) of this section. In such case, the CDC will not be required to restore the balance maintained in the LLRF to one percent of the original principal amount of the Debenture but must base the amount maintained in the LLRF on one percent of the principal amount of the Debenture as of the date of notification. The CDC may not begin to use the declining balance methodology again until SBA notifies the CDC in writing that SBA has determined, in its discretion, that the CDC has corrected the noncompliance and has demonstrated its ability to comply with these requirements.

* * * * *

Dated: April 5, 2019.

Linda E. McMahon,

Administrator.

[FR Doc. 2019–07318 Filed 4–12–19; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2018–0807; Product Identifier 2018–NM–003–AD]

RIN 2120–AA64

Airworthiness Directives; Airbus SAS Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Supplemental notice of proposed rulemaking (SNPRM); reopening of comment period.

SUMMARY: We are revising an earlier proposal for certain Airbus SAS Model A330–200, A330–300, A340–200, and A340–300 series airplanes. This action revises the notice of proposed rulemaking (NPRM) by adding certain airplanes to certain compliance time tables. We are proposing this airworthiness directive (AD) to address the unsafe condition on these products. Since these actions would impose an additional burden over those in the NPRM, we are reopening the comment period to allow the public the chance to comment on these changes.

DATES: The comment period for the NPRM published in the **Federal Register** on October 15, 2018 (83 FR 51889), is reopened.

We must receive comments on this SNPRM by May 30, 2019.

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- *Federal eRulemaking Portal:* Go to *http://www.regulations.gov.* Follow the instructions for submitting comments.
- *Fax:* 202–493–2251.
- *Mail:* U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE, Washington, DC 20590.
- *Hand Delivery:* U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE, Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Airbus SAS, Airworthiness Office—EAL, Rond-Point Emile Dewoitine No: 2, 31700 Blagnac Cedex, France; phone: +33 5 61 93 36 96; fax: +33 5 61 93 45 80; email: *airworthiness.A330-A340@airbus.com;* internet: *http://www.airbus.com.* You may view this referenced service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206–231–3195.

Examining the AD Docket

You may examine the AD docket on the internet at *http://www.regulations.gov* by searching for and locating Docket No. FAA–2018–0807; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this SNPRM, the regulatory evaluation, any comments received, and other information. The street address for Docket Operations (phone: 800–647–5527) is in the **ADDRESSES** section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Vladimir Ulyanov, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206–231–3229.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the **ADDRESSES** section. Include ''Docket No. FAA–2018–0807; Product Identifier 2018–NM–003–AD'' at the beginning of your comments. We specifically invite

comments on the overall regulatory, economic, environmental, and energy aspects of this SNPRM. We will consider all comments received by the closing date and may amend this SNPRM based on those comments.

We will post all comments we receive, without change, to *http://www.regulations.gov,* including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this SNPRM.

Discussion

We issued an NPRM to amend 14 CFR part 39 by adding an AD that would apply to certain Airbus Model A330–200, A330–300, A340–200, and A340–300 series airplanes. The NPRM published in the **Federal Register** on October 15, 2018 (83 FR 51889). The NPRM was prompted by a report that revealed the wheel axles of the main landing gear (MLG) were machined with a radius as small as 0.4 millimeters and a determination that the life limit for the affected wheel axles of the MLG must be reduced. The NPRM proposed to require an inspection to determine the part number and serial number of each MLG wheel axle and replacement of affected parts prior to exceeding the reduced life limits.

Actions Since the NPRM Was Issued

Since we issued the NPRM, we have determined that certain airplanes were missing from certain compliance time tables in the proposed AD.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2018–0150, dated July 16, 2018 (referred to after this as the Mandatory Continuing Airworthiness Information, or ''the MCAI''), to correct an unsafe condition for certain Airbus Model A330–200, A330–300, A340–200, and A340–300 series airplanes. The MCAI states:

In the past, EASA received a report, via Airbus and Messier-Bugatti-Dowty Ltd, from a MRO [Maintenance Repair Organization], concerning a specific repair accomplished on certain MLG wheel axles. Investigations revealed that the axles were machined with a radius as small as 0.4 mm.

This condition, if not corrected, has a detrimental effect on the fatigue lives of these parts, possibly affecting the structural integrity of the aeroplane. Fatigue analyses were performed and the results indicated that the life limit of the affected MLG wheel axles must be reduced to below the one stated in the A330 and A340 Airbus Airworthiness Limitation Section (ALS) Part 1.

To address this potential unsafe condition, EASA issued AD 2011–0170 [which corresponds to FAA AD 2013–08–03, Amendment 39–17420 (78 FR 23105, April 18, 2013) (''AD 2013–08–03'')], which required the replacement of the MLG wheel axles before exceeding the new reduced demonstrated life limit. After that [EASA] AD was issued, it was discovered that additional MLG wheel axles were subject to repairs by the same MRO. Consequently, EASA issued AD 2013–0067, retaining the requirements of EASA AD 2011–0170, which was superseded, and required the replacement of this additional batch of affected MLG wheel axles.

Since EASA AD 2013–0067 was issued, it was reported that two additional MROs have accomplished similar incorrect repairs on additional MLG wheel axles, necessitating implementation of a reduced life limit. The affected MLG wheel axles, as well as the related life limits, have been published in Airbus SB [service bulletin] A330–32–3282 and SB A340–32–4311, as applicable to aeroplane type.

Consequently, EASA issued AD 2017–0245, retaining the requirements of EASA AD 2013–0067, which was superseded, to require identification and replacement of the affected MLG wheel axles.

Since EASA AD 2017–0245, it was determined that some aeroplane models were missing from the Tables in Appendix 1 [of EASA AD 2017–0245]. It was also determined that the compliance times [of EASA AD 2017–0245] needed to be clarified.

For the reasons described above, this [EASA] AD fully retains the requirements of EASA AD 2017–0245, which is superseded, and introduces the necessary clarifications. This [EASA] AD also contains some editorial changes to meet the current [EASA] AD writing standards, without affecting the technical content or requirements.

You may examine the MCAI in the AD docket on the internet at *http://www.regulations.gov* by searching for and locating Docket No. FAA–2018–0807.

Related Service Information Under 1 CFR Part 51

Airbus has issued Service Bulletin A330–32–3282, Revision 03, including Appendixes 01, 02, and 03, dated October 24, 2017; and Service Bulletin A340–32–4311, Revision 03, including Appendixes 01, 02, and 03, dated October 24, 2017. This service information describes procedures for inspecting the MLG wheel axles to determine the part number and serial number, and replacing the affected MLG wheel axles. This service information also specifies reduced life limits for the affected MLG wheel axles. These documents are distinct since they apply to different airplane models.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the **ADDRESSES** section.

Comments

We gave the public the opportunity to participate in developing this proposed AD. We considered the comments received. Air Line Pilots Association, International (ALPA) stated that it supports the NPRM.

Request To Add Certain Airplanes to Certain Tables With Post-Repair Life Limits

American Airlines (AAL) and an anonymous commenter requested that we add certain airplanes to certain compliance time tables with post-repair life limits in the proposed AD. AAL stated that tables 2 and 3 to paragraphs (g)(2), (g)(3), and (i) of the proposed AD (in the NPRM) are missing airplane Model A330–323. AAL commented that this airplane model is shown as Model A330–3xx in Compliance Tables 2, 3, 4 and 5 of Airbus Service Bulletin A330–32–3282, Revision 03, dated October 24, 2017. AAL stated that it operates 9 Model A300–323 airplanes at ''WV022'' and without this airplane model included in the proposed AD, it would not be able to comply with the proposed AD as written.

An anonymous commenter stated that Model A330–302, A330–303, A330–323 and A330–343 airplanes are missing in tables 2 and 3 to paragraphs (g)(2), (g)(3), and (i) of the proposed AD (in the NPRM). The anonymous commenter stated that these airplanes have been added to EASA AD 2018–0150, dated July 16, 2018, because they were missing in EASA AD 2017–0245, dated December 11, 2017.

We agree with the commenters request. We have added airplane Models A330–302, A330–303, A330–323, and A330–343 to tables 2 and 3 to paragraphs (g)(2), (g)(3), and (i) of the proposed AD (in this SNPRM) for the reasons stated previously.

FAA's Determination and Requirements of This SNPRM

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

Certain changes described above expand the scope of the SNPRM. As a result, we have determined that it is

necessary to reopen the comment period to provide additional opportunity for the public to comment on this SNPRM.

Costs of Compliance

We estimate that this proposed AD affects 29 airplanes of U.S. registry. We estimate the following costs to comply with this proposed AD:

ESTIMATED COSTS

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
2 work-hours × $85 per hour = $170	$0	$170	$4,930

We estimate the following costs to do any necessary on-condition replacements that would be required based on the results of any required actions. We have no way of determining the number of aircraft that might need these on-condition replacements:

ESTIMATED COSTS OF ON-CONDITION ACTIONS

Labor cost	Parts cost	Cost per product
16 work-hours × $85 per hour = $1,360 (per part)	$40,000 (per part)	$41,360 (per part).

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: ''General requirements.'' Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This proposed AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes and associated appliances to the Director of the System Oversight Division.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a ''significant regulatory action'' under Executive Order 12866;

2. Is not a ''significant rule'' under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);

3. Will not affect intrastate aviation in Alaska; and

4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

■ 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

■ 2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Airbus SAS: Docket No. FAA–2018–0807; Product Identifier 2018–NM–003–AD.

(a) Comments Due Date

We must receive comments by May 30, 2019.

(b) Affected ADs

This AD affects AD 2013–08–03, Amendment 39–17420 (78 FR 23105, April 18, 2013) (''AD 2013–08–03'').

(c) Applicability

This AD applies to the Airbus airplanes, certificated in any category, specified in paragraphs (c)(1) through (c)(5) of this AD.

(1) Model A330–201, –202, –203, –223, and –243 airplanes, all manufacturer serial numbers (MSNs), except those on which Airbus Modification 54500 has been embodied in production.

(2) Model A330–301, –302, –303, –321, –322, –323, –341, –342, and –343 airplanes, all manufacturer serial numbers, except MSNs 0896, 0905, and 0913 (which are specified in paragraph (c)(3) of this AD), and except those on which Airbus Modification 54500 has been embodied in production.

(3) Model A330–343 airplanes, MSNs 0896, 0905, and 0913, except those on which the actions in Airbus Service Bulletin A330–32–3273 have been embodied in service.

(4) Model A340–211, –212, and –213 airplanes, all manufacturer serial numbers, except those on which Airbus Modification 54500 has been embodied in production.

(5) Model A340–311, –312, and –313 airplanes, all manufacturer serial numbers, except those on which Airbus Modification 54500 has been embodied in production.

(d) Subject

Air Transport Association (ATA) of America Code 32, Landing gear.

(e) Reason

This AD was prompted by a report that revealed the wheel axles of the main landing gear (MLG) were machined with a radius as small as 0.4 millimeters and a determination that the life limit for the affected wheel axles of the MLG must be reduced. We are issuing this AD to address fatigue of the wheel axles

of the MLG, which could result in reduced structural integrity of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Definitions

(1) For the purpose of this AD, the affected MLG wheel axles are listed by part number and serial number in Appendix 01 (Maintenance Repair Organization (MRO 1), Appendix 02 (MRO 2), and Appendix 03 (MRO 3) of Airbus Service Bulletin A330–32–3282, Revision 03, dated October 24, 2017; and Airbus Service Bulletin A340–32–4311, Revision 03, dated October 24, 2017; as applicable.

(2) For the purpose of this AD, a serviceable MLG wheel axle is an affected MLG wheel axle that has not exceeded the applicable post-repair life limit values as specified in table 1 to paragraphs (g)(2), (g)(3), and (i) of this AD, table 2 to paragraphs (g)(2), (g)(3), and (i) of this AD, or table 3 to paragraphs (g)(2), (g)(3), and (i) of this AD; or a part that is not an affected MLG wheel axle.

(3) For the purpose of this AD, the term ''post-repair life limits'' represents the time-in-service, flight cycles, or flight hours, whichever occurs first, accumulated since repair by the affected MRO specified in table 1 to paragraphs (g)(2), (g)(3), and (i) of this AD, table 2 to paragraphs (g)(2), (g)(3), and (i) of this AD, or table 3 to paragraphs (g)(2), (g)(3), and (i) of this AD.

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Table 1 to paragraphs (g)(2), (g)(3), and (i) of this AD –*MRO 1 Post-Repair Life Limits*

Affected Airplane(s)	Weight Variant (WV) (series)	Compliance Time (flight cycles (FC) or flight hours (FH), whichever occurs first, as defined by paragraph (g)(3) of this AD for post-repair life limits)
A340-211, A340-212 and A340-213	WV00x	4,600 FC or 29,000 FH
A340-311, A340-312 and A340-313	WV00x	4,700 FC or 22,250 FH
A340-313	WV02x and WV05x	3,950 FC or 16,900 FH
A330-301, A330-321, A330-322, A330-341, and A330-342	WV00x and WV01x	5,050 FC or 15,200 FH
A330-201, A330-202, A330-203, A330-223, and A330-243	WV02x, WV05x, and WV06x	4,450 FC or 17,900 FH
A330-301, A330-302, A330-303, A330-323, A330-342, and A330-343	WV02x and WV05x	5,150 FC or 13,450 FH

Table 2 to paragraphs (g)(2), (g)(3), and (i) of this AD – *MRO 2 Post-Repair Life Limits*

Affected Airplane(s)	WV (series)	Compliance Time A or B, whichever occurs later (FC or FH, whichever occurs first, as defined by paragraph (g)(3) of this AD for post-repair life limits)
A340-211, A340-212, A340-213, A340-311, A340-312, and A340-313	WV00x	**A:** 25,000 FC or 100,000 FH **B:** 12 months after the effective date of this AD
A340-311, A340-312, and A340-313	WV02x and WV05x	**A:** 25,000 FC or 83,100 FH **B:** 12 months after the effective date of this AD, but not to exceed 25,000 FC or 100,000 FH
A330-301, A330-302, A330-303, A330-321, A330-322, A330-323, A330-341, A330-342, and A330-343	WV00x, WV01x, WV02x, and WV05x	**A:** 50,000 FC or 75,000 FH **B:** 12 months after the effective date of this AD
A330-201, A330-202, A330-203, A330-223, and A330-243	WV02x, WV05x (except WV058), and WV06x	**A:** 50,000 FC or 75,000 FH **B:** 12 months after the effective date of this AD
A330-201, A330-202, A330-203, A330-223, and A330-243	WV058	**A:** 50,000 FC or 70,950 FH **B:** 12 months after the effective date of this AD, but not to exceed 50,000 FC or 75,000 FH

Table 3 to paragraphs (g)(2), (g)(3), and (i) of this AD – *MRO 3 Post-Repair Life Limits*

Affected Airplane(s)	WV (series)	Compliance Time A or B, whichever occurs later (FC or FH, whichever occurs first, as defined by paragraph (g)(3) of this AD for post-repair life limits)
A340-211, A340-212, A340-213, A340-311, A340-312, and A340-313	WV00x	**A:** 25,000 FC or 100,000 FH **B:** 12 months after the effective date of this AD
A340-311, A340-312, and A340-313	WV02x and WV05x	**A:** 25,000 FC or 68,800 FH **B:** 12 months after the effective date of this AD, but not to exceed 25,000 FC or 100,000 FH
A330-301, A330-302, A330-303, A330-321, A330-322, A330-323, A330-341, A330-342, and A330-343	WV00x and WV01x	**A:** 50,000 FC or 73,400 FH **B:** 12 months after the effective date of this AD, but not to exceed 50,000 FC or 75,000 FH
A330-301, A330-302, A330-303, A330-321, A330-322, A330-323, A330-341, A330-342, and A330-343	WV02x and WV05x	**A:** 50,000 FC or 64,100 FH **B:** 12 months after the effective date of this AD, but not to exceed 50,000 FC or 75,000 FH
A330-201, A330-202, A330-203, A330-223, and A330-243	WV02x, WV05x (except WV058), and WV06x	**A:** 50 000 FC or 62,950 FH **B:** 12 months after the effective date of this AD, but not to exceed 50,000 FC or 75,000 FH
A330-201, A330-202, A330-203, A330-223, and A330-243	WV058	**A:** 50 000 FC or 59,350 FH **B:** 12 months after the effective date of this AD, but not to exceed 50,000 FC or 75,000 FH

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(h) Inspection To Determine Part Number and Serial Number

Within 90 days after the effective date of this AD: Do an inspection of each MLG wheel axle (left-hand and right-hand sides) to determine the part number and serial number. A review of airplane delivery or maintenance records is acceptable to make this determination, in lieu of inspecting a MLG wheel axle, provided those records can be relied upon for that purpose and the part number and serial number of the affected part can be positively identified from that review.

(i) Replacement of Affected MLG Wheel Axles

If any affected MLG wheel axle is found: Within the compliance time specified in table 1 to paragraphs (g)(2), (g)(3), and (i) of this AD, table 2 to paragraphs (g)(2), (g)(3), and (i) of this AD, or table 3 to paragraphs (g)(2), (g)(3), and (i) of this AD; replace each repaired MLG wheel axle with a serviceable MLG wheel axle, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A330–32–3282, Revision 03, dated October 24, 2017; or Airbus Service Bulletin A340–32–4311, Revision 03, dated October 24, 2017; as applicable. Regardless of the applicable post-repair life limits as specified in table 1 to paragraphs (g)(2), (g)(3), and (i) of this AD, table 2 to paragraphs (g)(2), (g)(3), and (i) of this AD, or table 3 to paragraphs (g)(2), (g)(3), and (i) of this AD, the life limits as specified in Airbus A330/A340 Airworthiness Limitation Section (ALS) Part 1 cannot be exceeded.

(j) Parts Installation Limitation

As of the effective date of this AD, any affected MLG wheel axle repaired by MRO 1, MRO 2, or MRO 3 may be installed on an airplane, provided the MLG wheel axle is a serviceable part as defined in paragraph (g)(2) of this AD.

(k) Terminating Action for AD 2013–08–03

Accomplishing the inspection and replacement required by paragraphs (h) and (i) of this AD terminates all requirements of AD 2013–08–03.

(l) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs):* The Manager, International Section, Transport Standards Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Section, send it to the attention of the person identified in paragraph (m)(2) of this AD. Information may be emailed to: *9-ANM-116-AMOC-REQUESTS@faa.gov.* Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(2) *Contacting the Manufacturer:* For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Section, Transport Standards Branch, FAA; or the European Aviation Safety Agency (EASA); or Airbus SAS's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(3) *Required for Compliance (RC):* If any service information contains procedures or tests that are identified as RC, those procedures and tests must be done to comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

(m) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2018–0150, dated July 16, 2018, for related information. This MCAI may be found in the AD docket on the internet at *http://www.regulations.gov* by searching for and locating Docket No. FAA–2018–0807.

(2) For more information about this AD, contact Vladimir Ulyanov, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206–231–3229.

(3) For service information identified in this AD, contact Airbus SAS, Airworthiness Office—EAL, Rond-Point Emile Dewoitine No: 2, 31700 Blagnac Cedex, France; phone: +33 5 61 93 36 96; fax: +33 5 61 93 45 80; email: *airworthiness.A330-A340@airbus.com*; Internet: *http://www.airbus.com.* You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206–231–3195.

Issued in Des Moines, Washington, on April 8, 2019.

Michael J. Kaszycki,

Acting Director, System Oversight Division, Aircraft Certification Service.

[FR Doc. 2019–07386 Filed 4–12–19; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2019–0207; Product Identifier 2019–NE–02–AD]

RIN 2120–AA64

Airworthiness Directives; Safran Aerosystems Life Jackets

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain Safran Aerosystems (formerly Zodiac Aerospace Services) life jackets. This proposed AD was prompted by reports of defective welding on certain life jackets around the inflation system. This proposed AD would require removal and replacement of the affected life jackets. We are proposing this AD to address the unsafe condition on these products.

DATES: We must receive comments on this proposed AD by May 30, 2019.

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- *Federal eRulemaking Portal:* Go to *http://www.regulations.gov.* Follow the instructions for submitting comments.
- *Fax:* 202 493 2251.
- *Mail:* U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12 140, 1200 New Jersey Avenue SE, Washington, DC, 20590.
- *Hand Delivery:* Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Zodiac Aerospace Services, 61 Rue Pierre Curie, CS20001, 78370 Plaisir Cedex, France; phone: + 33 1 61 34 23 23; fax: + 33 1 61 34 21 13; email: *Technical.Retrofit@zodiacaerospace.com*; internet: *http://tpi.services.zodiacaerospace.com.* You may view this service information at the FAA, Engine and Propeller Standards Branch, 1200 District Avenue, Burlington, MA, 01803. For information on the availability of this material at the FAA, call 781–238–7759.

Examining the AD Docket

You may examine the AD docket on the internet at *http://www.regulations.gov* by searching for and locating Docket No. FAA–2019–0207; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the mandatory continuing airworthiness information (MCAI), the regulatory evaluation, any comments received, and other information. The street address for Docket Operations (phone: 800–647–5527) is listed above. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Erin King, Aerospace Engineer, Boston ACO Branch, FAA, 1200 District Avenue, Burlington, MA, 01803; phone 781–238–7655; fax: 781–238–7199; email: *erin.king@faa.gov.*

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the **ADDRESSES** section. Include ''Docket No. FAA–2019–0207; Product Identifier 2019–NE–02–AD'' at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. We will consider all comments received by the closing date and may amend this NPRM because of those comments.

We will post all comments we receive, without change, to *http://www.regulations.gov,* including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this NPRM.

Discussion

The European Union Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA AD 2019–0010, dated January 23, 2019 (referred to after this as ''the MCAI''), to address the unsafe condition on these products. The MCAI states:

Defective welding around the inflation system has been reportedly found on certain

life jackets on the production line. Subsequent investigation results identified a batch of life jackets which might be affected by this manufacturing defect.

This condition, if not corrected, could lead to inability of the life jacket to perform its intended function, possible resulting in injury to the user of that life jacket.

To address this potential unsafe condition, Safran Aerosystems issued the SB, providing the list of affected parts, and the repair SB, providing instructions to repair affected parts.

For the reason described above, this [EASA] AD requires replacement of affected life jackets, and allows their (re)installation on an aircraft only after having being repaired.

You may obtain further information by examining the MCAI in the AD docket on the internet at *http://www.regulations.gov* by searching for and locating Docket No. FAA–2019–0207.

Related Service Information Under 1 CFR Part 51

We reviewed Zodiac Aerospace Services Service Bulletin (SB) 25–65–33, Revision 01, dated January 8, 2019, and Zodiac Aerospace Services SB 25–65–34, Original Issue, dated January 8, 2019. Zodiac Aerospace Services SB 25–65–33 describes procedures for identifying the affected life jackets by part number and serial number. Zodiac Aerospace Services SB 25–65–34 describes procedures for repairing the affected life jackets. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the **ADDRESSES** section.

FAA's Determination

This product has been approved by EASA, and is approved for operation in the United States. Pursuant to our bilateral agreement with the European Community, EASA has notified us of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all the relevant information provided by EASA and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require removal and replacement of the affected life jackets.

Costs of Compliance

We estimate that this proposed AD affects an unknown number of life jackets installed on, but not limited to, ATR–GIE Avions de Transport Regional ATR 42 and ATR 72, Airbus A318/A319/A320/A321, Airbus A330, Airbus A340, Airbus A350, and Airbus A380 airplanes of U.S. registry. Operators have the option to replace or repair the affected life jackets. We have no way of determining the number of life jackets that might be replaced or repaired.

We estimate the following costs to comply with this proposed AD:

ESTIMATED COSTS

Action	Labor cost	Parts cost	Cost per product
Inspect life jacket	0.1 work-hours × $85 per hour = $8.50	$0	$8.50
Replace life jacket	0.5 work-hours × $85 per hour = $42.50	96	138.50
Repair life jacket	0.5 work-hours × $85 per hour = $42.50	0	42.50

According to the manufacturer, some of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: ''General requirements.'' Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to engines, propellers, and associated appliances to the Manager, Engine and Propeller Standards Branch, Policy and Innovation Division.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

(1) Is not a ''significant regulatory action'' under Executive Order 12866,

(2) Is not a ''significant rule'' under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),

(3) Will not affect intrastate aviation in Alaska, and

(4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

■ 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

■ 2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Safran Aerosystems (formerly Zodiac Aerospace Services): Docket No. FAA–2019–0207; Product Identifier 2019–NE–02–AD.

(a) Comments Due Date

We must receive comments by May 30, 2019.

(b) Affected ADs

None.

(c) Applicability

(1) This AD applies to Safran Aerosystems life jackets with part number (P/N) 210225–2, P/N 216200–0, or P/N 216203–0, and with a serial number listed in Table 1 of Zodiac Aerospace Services Service Bulletin (SB) 25–65–33, Revision 01, dated January 8, 2019, that are not marked with ''Mod.per SB 25–65–34'' in the identification area.

(2) These appliances are installed on, but not limited to, ATR–GIE Avions de Transport Regional ATR 42 and ATR 72, Airbus A318/A319/A320/A321, Airbus A330, Airbus A340, Airbus A350, and Airbus A380 airplanes.

(d) Subject

Joint Aircraft System Component (JASC) Code 2561, Life Jacket.

(e) Unsafe Condition

This AD was prompted by reports of defective welding on certain life jackets around the inflation system. We are issuing this AD to prevent failure of the life jacket. The unsafe condition, if not addressed, could result in injury to the wearer of the life jacket.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

Within six months after the effective date of this AD, remove each affected life jacket from the airplane and, before further flight, replace the life jacket with a life jacket eligible for installation.

(h) Installation Prohibition

After the effective date of this AD, do not install on any airplane an affected life jacket unless it has been repaired and marked to indicate compliance with such repair in accordance with Zodiac Aerospace Services SB 25–65–34, Original Issue, dated January 8, 2019, or a method approved by the FAA.

(i) Definition

A life jacket eligible for installation is a new life jacket or a life jacket repaired in accordance with Zodiac Aerospace Services SB 25–65–34, Original Issue, dated January 8, 2019, or by a method approved by the FAA.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Boston ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO Branch, send it to the attention of the person identified in paragraph (k)(1) of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(k) Related Information

(1) For more information about this AD, contact Erin King, Aerospace Engineer, Boston ACO Branch, FAA, 1200 District Avenue, Burlington, MA, 01803; phone 781–238–7655; fax: 781–238–7199; email: *erin.king@faa.gov.*

(2) Refer to European Union Aviation Safety Agency (EASA) AD 2019–0010, dated January 23, 2019, for more information. You may examine the EASA AD in the AD docket on the internet at *http://www.regulations.gov* by searching for and locating it in Docket No. FAA–2019–0207.

(3) For service information identified in this AD, contact Zodiac Aerospace Services, 61 Rue Pierre Curie, CS20001, 78370 Plaisir Cedex, France; phone: + 33 1 61 34 23 23; fax: + 33 1 61 34 21 13; email: *Technical.Retrofit@zodiacaerospace.com;* internet: *http://tpi.services.zodiac aerospace.com.* You may view this referenced service information at the FAA, Engine and Propeller Standards Branch, 1200 District Avenue, Burlington, MA, 01803. For information on the availability of this material at the FAA, call 781–238–7759.

Issued in Burlington, Massachusetts, on April 10, 2019.

Robert J. Ganley,

Manager, Engine and Propeller Standards Branch, Aircraft Certification Service.

[FR Doc. 2019–07426 Filed 4–12–19; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2019–0192; Product Identifier 2019–NM–004–AD]

RIN 2120–AA64

Airworthiness Directives; Airbus SAS Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for all Airbus SAS Model A300 B4–600, B4–600R, and F4–600R series airplanes, and Model A300 C4–605R Variant F airplanes (collectively called Model A300–600 series airplanes), and Model A310 series airplanes. This proposed AD was prompted by a determination that a certain aircraft maintenance manual (AMM) task provided instructions for a visual inspection of composite and metallic vertical tailplane (VTP) attachment fittings, but the inspection method did not specify detection of delamination length, which could possibly extend beyond the defined allowable limits. This proposed AD would require a review of maintenance records, and, depending on the result, one-time detailed and ultrasonic inspections of the affected parts and applicable corrective actions, as specified in an European Aviation Safety Agency (EASA) AD, which will be incorporated by reference. We are proposing this AD to address the unsafe condition on these products.

DATES: We must receive comments on this proposed AD by May 30, 2019.

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- *Federal eRulemaking Portal:* Go to *http://www.regulations.gov.* Follow the instructions for submitting comments.
- *Fax:* 202–493–2251.
- *Mail:* U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE, Washington, DC 20590.
- *Hand Delivery:* Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For the incorporation by reference (IBR) material described in the ''Related IBR material under 1 CFR part 51'' section in **SUPPLEMENTARY INFORMATION**, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 89990 1000; email *ADs@easa.europa.eu;* Internet *www.easa.europa.eu.* You may find this IBR material on the EASA website at *https://ad.easa.europa.eu.* You may view this IBR material at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206–231–3195. It is also available in the AD docket on the internet at *http://www.regulations.gov.*

Examining the AD Docket

You may examine the AD docket on the internet at *http://www.regulations.gov* by searching for and locating Docket No. FAA–2019–

0192; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the regulatory evaluation, any comments received, and other information. The street address for Docket Operations (telephone 800–647–5527) is in the **ADDRESSES** section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Dan Rodina, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206–231–3225.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the **ADDRESSES** section. Include ''Docket No. FAA–2019–0192; Product Identifier 2019–NM–004–AD'' at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. We will consider all comments received by the closing date and may amend this NPRM based on those comments.

We will post all comments we receive, without change, to *http://www.regulations.gov,* including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this NPRM.

Discussion

The EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2019–0006, dated January 17, 2019 (''EASA AD 2019–0006'') (also referred to as the Mandatory Continuing Airworthiness Information, or ''the MCAI''), to correct an unsafe condition for all Airbus SAS Model A300–600 series airplanes and Model A310 series airplanes. The MCAI states:

> AMM Task 55–36–11 provides instructions for visual inspection of composite and metallic VTP attachment fittings, and contains detailed information on damage limits. As defined in this AMM task, a composite part delamination is acceptable without further repair. However, as the inspection method included in the AMM does not allow detection of delamination length, this may consequently pass over the allowable limits defined.
>
> This condition, if not detected and corrected, could lead to failure of the VTP attachment fittings, possibly resulting in loss of control of the aeroplane.
>
> Prompted by this potential unsafe condition, Airbus issued the applicable SB [service bulletin] to provide non-destructive test instructions, which allow detection of delaminated area(s) before exceeding the limits.
>
> For the reasons described above, this [EASA] AD requires a review of maintenance records and, depending on the result, a one-time detailed inspection (DET) of the affected parts, followed by an ultrasonic (US) inspection, and, depending on findings, accomplishment of applicable corrective action(s).

Related IBR Material Under 1 CFR Part 51

EASA AD 2019–0006 describes procedures for a review of maintenance records, one-time detailed and ultrasonic inspections of the affected parts, and applicable corrective actions. This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the **ADDRESSES** section, and it is publicly available through the EASA website.

FAA's Determination and Requirements of This Proposed AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

Proposed Requirements of This NPRM

This proposed AD would require accomplishing the actions specified in EASA AD 2019–0006 described previously, as incorporated by reference, except for any differences identified as exceptions in the regulatory text of this AD.

Explanation of Required Compliance Information

In the FAA's ongoing efforts to improve the efficiency of the AD process, the FAA worked with Airbus and EASA to develop a process to use certain EASA ADs as the primary source of information for compliance with requirements for corresponding FAA ADs. As a result, EASA AD 2019–0006 will be incorporated by reference in the FAA final rule. This proposed AD would, therefore, require compliance with the provisions specified in EASA AD 2019–0006, except for any differences identified as exceptions in the regulatory text of this proposed AD. Service information specified in EASA AD 2019–0006 that is required for compliance with EASA AD 2019–0006 will be available on the internet at *http://www.regulations.gov* by searching for and locating Docket No. FAA–2019–0192 after the FAA final rule is published.

Costs of Compliance

We estimate that this proposed AD affects 133 airplanes of U.S. registry. We estimate the following costs to comply with this proposed AD:

ESTIMATED COSTS FOR REQUIRED ACTIONS

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Up to 21 work-hours × $85 per hour = $1,785	$0	Up to $1,785	Up to $237,405.

We have received no definitive data that would enable us to provide cost estimates for the on-condition actions specified in this proposed AD.

According to the manufacturer, some or all of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all known costs in our cost estimate.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701:

''General requirements.'' Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This proposed AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes and associated appliances to the Director of the System Oversight Division.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a ''significant regulatory action'' under Executive Order 12866;
2. Is not a ''significant rule'' under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

■ 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

■ 2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Airbus SAS: Docket No. FAA–2019–0192; Product Identifier 2019–NM–004–AD.

(a) Comments Due Date

We must receive comments by May 30, 2019.

(b) Affected ADs

None.

(c) Applicability

This AD applies to the airplanes identified in paragraphs (c)(1) and (c)(2) of this AD, certificated in any category, as identified in European Aviation Safety Agency (EASA) AD 2019–0006, dated January 17, 2019 (''EASA AD 2019–0006'').

(1) Airbus SAS Model A300 B4–601, B4–603, B4–620, and B4–622 airplanes, Model A300 B4–605R and B4–622R airplanes, Model A300 F4–605R and F4–622R airplanes, and Model A300 C4–605R Variant F airplanes.

(2) Airbus SAS Model A310–203, –204, –221, –222, –304, –322, –324, and –325 airplanes.

(d) Subject

Air Transport Association (ATA) of America Code 55, Stabilizers.

(e) Reason

This AD was prompted by a determination that a certain aircraft maintenance manual task provided instructions for a visual inspection of composite and metallic vertical tailplane (VTP) attachment fittings, but the inspection method did not specify detection of delamination length, which could possibly extend beyond the defined allowable limits. We are issuing this AD to address this condition, which, if not detected and corrected, could lead to failure of the VTP attachment fittings, possibly resulting in loss of control of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Requirements

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, EASA AD 2019–0006.

(h) Exceptions to EASA AD 2019–0006

(1) For purposes of determining compliance with the requirements of this AD: Where EASA AD 2019–0006 refers to its effective date, this AD requires using the effective date of this AD.

(2) For purposes of determining compliance with the requirements of this AD: Replace the language in paragraph (2) of EASA AD 2019–0006 that states ''it is determined that the maintenance records are incomplete,'' with ''maintenance records cannot be used to positively determine that the applicable maintenance actions have been accomplished.''

(3) For purposes of determining compliance with the requirements of this AD: Replace the language in paragraph (2) of EASA AD 2019–0006 that states ''concurrently,'' with ''before further flight.''

(4) The ''Remarks'' section of EASA AD 2019–0006 does not apply to this AD.

(i) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs):* The Manager, International Section, Transport Standards Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Section, send it to the attention of the person identified in paragraph (j)(2) of this AD. Information may be emailed to: *9-ANM-116-AMOC-REQUESTS@faa.gov.* Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(2) *Contacting the Manufacturer:* For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, International Section, Transport Standards Branch, FAA; or EASA; or Airbus SAS's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(3) *Required for Compliance (RC)*: For any service information referenced in EASA AD 2019–0006 that contains RC procedures and tests: Except as required by paragraph (i)(2) of this AD, RC procedures and tests must be done to comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

(j) Related Information

(1) For information about EASA AD 2019–0006, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 89990 6017; email *ADs@easa.europa.eu*; Internet *www.easa.europa.eu.* You may find this EASA AD on the EASA website at *https://ad.easa.europa.eu.* You may view this EASA AD at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206–231–3195. EASA AD 2019–0006 may be found in the AD docket on the internet at *http://www.regulations.gov* by searching for and locating Docket No. FAA–2019–0192.

(2) For more information about this AD, contact Dan Rodina, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206–231–3225.

Issued in Des Moines, Washington, on April 8, 2019.

Michael J. Kaszycki,

Acting Director, System Oversight Division, Aircraft Certification Service.

[FR Doc. 2019–07385 Filed 4–12–19; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

33 CFR Part 165

[Docket Number USCG–2019–0186]

RIN 1625–AA00

Safety Zone; Missouri River, Mile Markers 366.3 to 369.8, Kansas City, MO

AGENCY: Coast Guard, DHS.

ACTION: Notice of proposed rulemaking.

SUMMARY: The Coast Guard proposes to establish a temporary safety zone for the navigable waters of the Missouri River from mile marker (MM) 366.3 to MM 369.8. This action is necessary to provide for the safety of life on these navigable waters near Kansas City, MO, during an airshow from July 4 through July 7, 2019. This proposed rulemaking would prohibit persons and vessels from entering the safety zone unless authorized by the Captain of the Port Sector Upper Mississippi River or a designated representative. We invite your comments on this proposed rulemaking.

DATES: Comments and related material must be received by the Coast Guard on or before May 15, 2019.

ADDRESSES: You may submit comments identified by docket number USCG–2019–0186 using the Federal eRulemaking Portal at *https://www.regulations.gov.* See the ''Public Participation and Request for Comments'' portion of the **SUPPLEMENTARY INFORMATION** section for further instructions on submitting comments.

FOR FURTHER INFORMATION CONTACT: If you have questions about this proposed rulemaking, call or email Lieutenant Commander Christian Barger, Waterways Management Division, Sector Upper Mississippi River, U.S. Coast Guard; telephone 314–269–2560, email *Christian.J.Barger@uscg.mil.*

SUPPLEMENTARY INFORMATION:

I. Table of Abbreviations

CFR Code of Federal Regulations
COTP Captain of the Port Sector Upper Mississippi River
DHS Department of Homeland Security
FR Federal Register
NPRM Notice of proposed rulemaking
§ Section
U.S.C. United States Code

II. Background, Purpose, and Legal Basis

On March 14, 2019, the KC Air Show Charities, Inc. notified the Coast Guard that it would be conducting an airshow over the Missouri River near Kansas City, MO on July 4, 2019 from noon to 6 p.m., and from 2 p.m. to 6 p.m. from July 5 through 7, 2019. This proposed rulemaking would establish a temporary safety zone and prohibit persons and vessels from entering the safety zone unless authorized by the Captain of the Port Sector Upper Mississippi River (COTP) or a designated representative. This action is necessary to provide for the safety of life during the airshows.

The Coast Guard is proposing this rulemaking under authority in 46 U.S.C. 70034 (previously 33 U.S.C. 1231).

III. Discussion of Proposed Rule

The COTP proposes to establish a temporary safety zone on the navigable waters of the Missouri River from Mile Marker (MM) 366.3 to MM 369.8 on July 4, 2019 and from July 5 through 7, 2019. The rule would be enforced from noon to 6 p.m. on July 4, 2019, and from 2 p.m. to 6 p.m. on July 5 to July 7, 2019. The duration of the zone is intended to ensure the safety of vessels on these navigable waters during the airshow. No vessel or person would be permitted to enter the safety zone without obtaining permission from the COTP or a designated representative.

The COTP or a designated representative would inform the public of the enforcement date and times for this safety zone, as well as any emergent safety concerns that may delay the enforcement of the zone through Broadcast Notice to Mariners, Local Notices to Mariners, and/or actual notice.

IV. Regulatory Analyses

We developed this proposed rule after considering numerous statutes and Executive orders related to rulemaking. Below we summarize our analyses based on a number of these statutes and Executive orders and we discuss First Amendment rights of protestors.

A. Regulatory Planning and Review

Executive Orders 12866 and 13563 direct agencies to assess the costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits. Executive Order 13771 directs agencies to control regulatory costs through a budgeting process. This NPRM has not been designated a ''significant regulatory action,'' under Executive Order 12866. Accordingly, the NPRM has not been reviewed by the Office of Management and Budget (OMB), and pursuant to OMB guidance it is exempt from the requirements of Executive Order 13771.

This regulatory action determination is based on the duration, location, and size of the safety zone. This zone would be in effect up to six hours per day for four days total and would affect three and one-half miles of the Missouri River. Additionally, persons and vessels would be allowed to request entry into the zone from the COTP or a designated representative.

B. Impact on Small Entities

The Regulatory Flexibility Act of 1980, 5 U.S.C. 601–612, as amended, requires Federal agencies to consider the potential impact of regulations on small entities during rulemaking. The term ''small entities'' comprises small businesses, not-for-profit organizations that are independently owned and operated and are not dominant in their fields, and governmental jurisdictions with populations of less than 50,000. The Coast Guard certifies under 5 U.S.C. 605(b) that this proposed rule would not have a significant economic impact on a substantial number of small entities.

While some owners or operators of vessels intending to transit the temporary safety zone may be small entities, for the reasons stated in section IV.A above, this proposed rule would not have a significant economic impact on any vessel owner or operator.

If you think that your business, organization, or governmental jurisdiction qualifies as a small entity and that this rule would have a significant economic impact on it, please submit a comment (see **ADDRESSES**) explaining why you think it qualifies and how and to what degree this rule would economically affect it.

Under section 213(a) of the Small Business Regulatory Enforcement Fairness Act of 1996 (Pub. L. 104–121), we want to assist small entities in understanding this proposed rule. If the rule would affect your small business, organization, or governmental

jurisdiction and you have questions concerning its provisions or options for compliance, please contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section. The Coast Guard will not retaliate against small entities that question or complain about this proposed rule or any policy or action of the Coast Guard.

C. Collection of Information

This proposed rule would not call for a new collection of information under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520).

D. Federalism and Indian Tribal Governments

A rule has implications for federalism under Executive Order 13132, Federalism, if it has a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. We have analyzed this proposed rule under that Order and have determined that it is consistent with the fundamental federalism principles and preemption requirements described in Executive Order 13132.

Also, this proposed rule does not have tribal implications under Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, because it would not have a substantial direct effect on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes. If you believe this proposed rule has implications for federalism or Indian tribes, please contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section.

E. Unfunded Mandates Reform Act

The Unfunded Mandates Reform Act of 1995 (2 U.S.C. 1531–1538) requires Federal agencies to assess the effects of their discretionary regulatory actions. In particular, the Act addresses actions that may result in the expenditure by a State, local, or tribal government, in the aggregate, or by the private sector of $100,000,000 (adjusted for inflation) or more in any one year. Though this proposed rule would not result in such an expenditure, we do discuss the effects of this rule elsewhere in this preamble.

F. Environment

We have analyzed this proposed rule under Department of Homeland Security Directive 023–01 and Commandant Instruction M16475.1D, which guide the Coast Guard in complying with the National Environmental Policy Act of 1969 (42 U.S.C. 4321–4370f), and have made a preliminary determination that this action is one of a category of actions that do not individually or cumulatively have a significant effect on the human environment. This proposed rule involves a safety zone that would last up to six hours for four days along three and one-half miles of the Missouri River. Normally such actions are categorically excluded from further review under paragraph L60(a) of Appendix A, Table 1 of DHS Instruction Manual 023–01–001–01, Rev. 01. A preliminary Record of Environmental Consideration supporting this determination is available in the docket where indicated under **ADDRESSES**. We seek any comments or information that may lead to the discovery of a significant environmental impact from this proposed rule.

G. Protest Activities

The Coast Guard respects the First Amendment rights of protesters. Protesters are asked to contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section to coordinate protest activities so that your message can be received without jeopardizing the safety or security of people, places, or vessels.

V. Public Participation and Request for Comments

We view public participation as essential to effective rulemaking, and will consider all comments and material received during the comment period. Your comment can help shape the outcome of this rulemaking. If you submit a comment, please include the docket number for this rulemaking, indicate the specific section of this document to which each comment applies, and provide a reason for each suggestion or recommendation.

We encourage you to submit comments through the Federal eRulemaking Portal at *http://www.regulations.gov.* If your material cannot be submitted using *http://www.regulations.gov,* contact the person in the **FOR FURTHER INFORMATION CONTACT** section of this document for alternate instructions.

We accept anonymous comments. All comments received will be posted without change to *https://www.regulations.gov* and will include any personal information you have provided. For more about privacy and the docket, visit *https://www.regulations.gov/privacyNotice.*

Documents mentioned in this NPRM as being available in the docket, and all public comments, will be in our online docket at *https://www.regulations.gov* and can be viewed by following that website's instructions. Additionally, if you go to the online docket and sign up for email alerts, you will be notified when comments are posted or a final rule is published.

List of Subjects in 33 CFR Part 165

Harbors, Marine safety, Navigation (water), Reporting and recordkeeping requirements, Security measures, Waterways.

For the reasons discussed in the preamble, the Coast Guard proposes to amend 33 CFR part 165 as follows:

PART 165— REGULATED NAVIGATION AREAS AND LIMITED ACCESS AREAS

■ 1. The authority citation for part 165 continues to read as follows:

Authority: 46 U.S.C. 70034; 46 U.S.C. 70051; 33 CFR 1.05–1, 6.04–1, 6.04–6, and 160.5; Department of Homeland Security Delegation No. 0170.1.

■ 2. Add § 165.T08–0186 to read as follows:

§ 165.T08–0186 Safety Zone; Missouri River, Mile Markers 366.3 to 369.8, Kansas City, MO

(a) *Location.* The following area is a temporary safety zone: All navigable waters of the Missouri River from Mile Marker (MM) 366.3 to MM 369.8 near Kansas City, MO.

(b) *Period of enforcement.* This section will be enforced from noon through 6 p.m. on July 4, 2019 and 2 p.m. through 6 p.m. on July 5 through 7, 2019.

(c) *Regulations.* (1) In accordance with the general regulations in § 165.23, persons and vessels are prohibited from entering the safety zone unless authorized by the Captain of the Port Sector Upper Mississippi River (COTP) or a designated representative. A designated representative is a commissioned, warrant, or petty officer of the U.S. Coast Guard (USCG) assigned to units under the operational control of USCG Sector Upper Mississippi River.

(2) Persons or vessels desiring to enter into or pass through the zone must request permission from the COTP or a designated representative. They may be contacted by telephone at 314–269–2332.

(3) If permission is granted, all persons and vessels shall comply with the instructions of the COTP or designated representative.

(d) *Informational broadcasts.* The COTP or a designated representative will inform the public of the enforcement date and times for this safety zone, as well as any emergent safety concerns that may delay the enforcement of the zone through Broadcast Notice to Mariners, Local Notices to Mariners, and/or actual notice.

Dated: April 4, 2019.

S.A. Stoermer,

Captain, U.S. Coast Guard, Captain of the Port Sector Upper Mississippi River.

[FR Doc. 2019–07406 Filed 4–12–19; 8:45 am]

BILLING CODE 9110–04–P

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Parts 1 and 73

[AU Docket No. 19–61, GN Docket No. 12–268, MB Docket No. 16–306; DA 19–229]

Auction of Construction Permits for LPTV and TV Translator Stations; Comment Sought on Competitive Bidding Procedures for Auction 104

AGENCY: Federal Communications Commission.

ACTION: Proposed rule; proposed auction procedures.

SUMMARY: In this document, the Incentive Auction Task Force and Media Bureau, in conjunction with the Office of Economics and Analytics, announce an auction of construction permits for low power television stations and TV translator stations. This document also seeks comment on competitive bidding procedures and proposed minimum opening bid amounts for Auction 104.

DATES: Comments are due on or before April 15, 2019, and reply comments are due on or before April 29, 2019. Bidding for low power television station and TV translator station construction permits in Auction 104 is scheduled to begin on September 10, 2019.

ADDRESSES: Interested parties may submit comments in response to the AU Docket No. 19–61, GN Docket No. 12–268, and MB Docket No. 16–306 by any of the following methods:

- *FCC's Website:* Federal Communication Commission's Electronic Comment Filing System (ECFS): *http://www.fcc.gov/ecfs/.* Follow the instructions for submitting comments.
- *People with Disabilities:* To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, or audio format), send an email to *fcc504@fcc.gov* or call the Consumer & Governmental Affairs Bureau at 202–418–0530 (voice), 202–418–0432 (TTY).

For detailed instructions for submitting comments, see the **SUPPLEMENTARY INFORMATION** section of this document.

FOR FURTHER INFORMATION CONTACT: For auction legal questions, Lynne Milne in the Office of Economics and Analytics' Auctions Division at (202) 418–0660. For general auction questions, the Auctions Hotline at (717) 338–2868. For LPTV and translator station service questions, Shaun Maher at (202) 418–2324 or Hossein Hashemzadeh in the Media Bureau's Video Division at (202) 418–1658.

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's document (*Auction 104 Comment Public Notice*), AU Docket No. 19–61, GN Docket No. 12–268, MB Docket No. 16–306; DA 19–229, released on March 29, 2019. The complete text of this document, including attachments, is available for public inspection and copying from 8:00 a.m. to 4:30 p.m. Eastern Time (ET) Monday through Thursday or from 8:00 a.m. to 11:30 a.m. ET on Fridays in the FCC Reference Information Center, 445 12th Street SW, Room CY–A257, Washington, DC 20554. The complete text of this document and related documents also are available on the internet at the Commission's website: *www.fcc.gov/auction/104,* or by using the search function for AU Docket No. 19–61, or for GN Docket No. 12–268, or for MB Docket No. 16–306 on the Commission's ECFS web page at *http://www.fcc.gov/ecfs/.*

All filings in response to the *Auction 104 Comment Public Notice* must refer to AU Docket No. 19–61, GN Docket No. 12–268, and MB Docket No. 16–306. The Incentive Auction Task Force (IATF), Media Bureau (MB) and the Office of Economics and Analytics (OEA) strongly encourage interested parties to file comments electronically, and request that an additional copy of all comments and reply comments be submitted electronically to the following address: *auction104@fcc.gov.*

- *Electronic Filers:* Comments may be filed electronically using the internet by accessing ECFS: *http://www.fcc.gov/ecfs.* Follow the instructions for submitting comments.
- *Paper Filers:* Parties who choose to file by paper must file an original and one copy of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number.

Filings can be sent by hand or messenger delivery, by commercial overnight courier or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission (FCC). All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to the FCC Headquarters at 445 12th Street SW, Room TW–A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. ET.

- All hand deliveries must be held together with rubber bands or fasteners. Any envelope or box must be disposed of before entering the building.
- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9050 Junction Drive, Annapolis Junction, MD 20701.
- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12th Street SW, Washington, DC 20554.

Synopsis

I. Introduction

1. The construction permits available in Auction 104 are those that remain mutually exclusive (MX) under previously-announced procedures governing the post-incentive auction for low power television (LPTV) stations and TV translator stations (collectively referred to as LPTV/translator stations) and involve six groups of nineteen stations. Auction 104 is a closed auction; only those individuals or entities listed in Attachment A of the *Auction 104 Comment Public Notice* are eligible to participate in this auction.

II. Background

2. Certain LPTV/translator stations were displaced from their authorized channels by the broadcast incentive auction (Auction 1000) which repurposed 84 megahertz of spectrum in the 600 MHz band that had been allocated for flexible use broadcast television and resulted in the reassignments of certain full power and Class A television stations. The Commission therefore adopted procedures for LPTV/translator stations to apply for new channels and took other steps to mitigate the impact of this displacement.

III. Construction Permits in Auction 104

3. Auction 104 will resolve by competitive bidding MX engineering proposals for up to six LPTV/translator

construction permits. The MX groups listed in Attachment A of the *Auction 104 Comment Public Notice* are the groups of MX engineering proposals that remain after an opportunity to resolve mutual exclusivity through settlement or technical modification of engineering proposals. The MX engineering proposals listed in Attachment A to the *Auction 104 Comment Public Notice* are subject to the Commission's competitive bidding rules and procedures. See 47 CFR part 1, subpart Q; see also 47 CFR 73.5000, 73.5002–73.5003, 73.5005–73.5009.

4. An applicant listed in Attachment A may become qualified to bid only if it complies with the auction filing, qualification and payment requirements, and otherwise complies with applicable rules, policies, and procedures. Each listed applicant may become a qualified bidder only for those constructions permits specified for that applicant in Attachment A to the *Auction 104 Comment Public Notice.* Each of the engineering proposals within each MX group are directly mutually exclusive with one another; therefore, no more than one construction permit will be awarded for each MX group identified in Attachment A. Under the Commission's established precedent, once mutually exclusive short-form applications are accepted for a construction permit, and thus mutual exclusivity exists for auction purposes, an applicant cannot obtain a construction permit without placing a bid, even if no other applicant for that particular construction permit becomes qualified to bid, or in fact places a bid.

IV. Proposed Bidding Procedures

5. OEA in conjunction with MB seek comment on a variety of auction-specific procedures relating to the structure and conduct of Auction 104.

A. Auction Structure

6. *Simultaneous Multiple Round Auction Design.* IATF, MB and OEA seek comment on the use of the Commission's standard simultaneous multiple-round auction format for Auction 104. This type of auction offers every construction permit for bid at the same time and consists of successive bidding rounds in which eligible bidders may place bids on individual construction permits. Typically, bidding remains open on all construction permits until bidding stops on every construction permit.

7. *Bidding Rounds.* Auction 104 will consist of sequential bidding rounds, each followed by the release of round results. The Commission will conduct Auction 104 over the internet using the FCC auction bidding system. Qualified bidders will also have the option of placing bids by telephone through a dedicated auction bidder line.

8. IATF, MB and OEA seek comment on the proposal to retain the discretion to change the bidding schedule to foster an auction pace that reasonably balances speed with the bidders' need to study round results and adjust their bidding strategies. Under this proposal, the amount of time for the bidding rounds, the amount of time between rounds, or the number of rounds per day, depending upon bidding activity and other factors, may change. Commenters on this issue should address the role of the bidding schedule in managing the pace of the auction, specifically discussing the tradeoffs in managing auction pace by bidding schedule changes, by changing the activity requirements or bid amount parameters, or by using other means.

9. *Stopping Rule.* To complete bidding in the auction within a reasonable time, pursuant to CFR 1.2104(e), it is proposed to employ a simultaneous stopping rule approach for Auction 104, which means all construction permits remain available for bidding until bidding stops on every construction permit. Specifically, bidding would close on all construction permits after the first round in which no bidder submits any new bids, applies a proactive waiver, or, if bid withdrawals are permitted in this auction, withdraws any provisionally winning bid which is a bid that would become a final winning bid if the auction were to close in that given round. Thus, unless alternative procedures are announced, under the proposed simultaneous stopping rule, bidding will remain open on all construction permits until bidding stops on every construction permit. Consequently, it is not possible to determine in advance how long the bidding in this auction will last.

10. Further, the following options were proposed as alternatives during Auction 104. (1) Use a modified version of the simultaneous stopping rule that would close the auction for all construction permits after the first round in which no bidder applies a waiver, withdraws a provisionally winning bid (if withdrawals are permitted in this auction), or places any new bid on a construction permit for which it is not the provisionally winning bidder, which means that, absent any other bidding activity, a bidder placing a new bid on a construction permit for which it is the provisionally winning bidder would not keep the auction open. (2) Use a modified version of the simultaneous stopping rule that would close the auction for all construction permits after the first round in which no bidder applies a waiver, withdraws a provisionally winning bid (if withdrawals are permitted in this auction), or places any new bid on a construction permit that already has a provisionally winning bid, which means that, absent any other bidding activity, a bidder placing a new bid on an FCC-held construction permit (a construction permit that does not already have a provisionally winning bid) would not keep the auction open. (3) Use a modified version of the simultaneous stopping rule that combines options (1) and (2). (4) Use a special stopping rule that would close the auction after a specified number of additional rounds to be announced in the FCC auction bidding system. If this special stopping rule is invoked, bids are accepted in the specified final round(s), after which the auction will close. (5) The auction would remain open even if no bidder places any new bid, applies a waiver, or withdraws any provisionally winning bid (if withdrawals are permitted in this auction). In this event, the effect will be the same as if a bidder had applied a waiver. The activity rule will apply as usual, and a bidder with insufficient activity will either lose bidding eligibility or use a waiver.

11. IATF, MB and OEA propose to exercise these options only in certain circumstances, for example, where the auction is proceeding unusually slowly or quickly, there is minimal overall bidding activity, or it appears likely that the auction will not close within a reasonable period of time or will close prematurely. Before exercising these options, it is likely that there will be an attempt to change the pace of the auction. For example, the pace of bidding may be adjusted by changing the number of bidding rounds per day and/or the minimum acceptable bids. IATF, MB and OEA propose to retain the discretion to exercise any of these options with or without prior announcement during the auction. IATF, MB and OEA seek comment on these proposals.

12. *Auction Delay, Suspension or Cancellation.* Pursuant to 47 CFR 1.2104(i), IATF, MB and OEA propose that they may delay, suspend, or cancel bidding in Auction 104 in the event of a natural disaster, technical obstacle, administrative or weather necessity, evidence of an auction security breach or unlawful bidding activity, or for any other reason that affects the fair and efficient conduct of competitive bidding. Auction 104 participants will be notified of any such delay,

suspension or cancellation by public notice and/or through the FCC auction bidding system's messages function. If bidding is delayed or suspended, IATF, MB and OEA may, in their sole discretion, elect to resume the auction starting from the beginning of the current round or from some previous round, or cancel the auction in its entirety. Network interruption may cause IATF, MB and OEA to delay or suspend the auction. IATF, MB and OEA will exercise this authority solely at their discretion, and not as a substitute for situations in which bidders may wish to apply activity rule waivers. IATF, MB and OEA seek comment on these proposals.

B. Auction Procedures

13. *Upfront Payments and Bidding Eligibility.* IATF, MB and OEA seek comment on the upfront payment amounts proposed in Attachment A of the *Auction 104 Comment Public Notice,* which were developed by taking into account such factors as the efficiency of the auction process and the potential value of similar construction permits. The upfront payment is a refundable deposit made by an applicant to establish eligibility to bid on construction permits. Upfront payments that are related to the specific construction permits being auctioned protect against frivolous or insincere bidding and provide the Commission with a source of funds from which to collect payments owed at the close of bidding.

14. IATF, MB and OEA request comment on the proposal that the amount of the upfront payment submitted by a bidder will determine its initial bidding eligibility in bidding units. Under this proposal, each construction permit will be assigned a specific number of bidding units, equal to one bidding unit per dollar of the upfront payment listed in Attachment A of the *Auction 104 Comment Public Notice.* The number of bidding units for a given construction permit is fixed and does not change during the auction as prices change. If an applicant is found to be qualified to bid on more than one permit in Auction 104, such a bidder may place bids on multiple construction permits, provided that the total number of bidding units associated with those construction permits does not exceed the bidder's current eligibility. A bidder cannot increase its eligibility during the auction; it can only maintain its eligibility or decrease its eligibility. Thus, in calculating its upfront payment amount and hence its initial bidding eligibility, an applicant must determine the maximum number of bidding units on which it may wish to bid (or hold provisionally winning bids) in any single round, and submit an upfront payment amount covering that total number of bidding units.

15. *Activity Rule.* To ensure that the auction closes within a reasonable period of time, an activity rule requires bidders to bid actively throughout the auction, rather than wait until late in the auction before participating. IATF, MB and OEA request comment on the proposal for a single stage auction with the following activity requirement: In each round of the auction, a bidder desiring to maintain its current bidding eligibility is required to be active on 100% of its bidding eligibility. A bidder's activity in a round will be the sum of the bidding units associated with any construction permit upon which it places a bid during the current round and the bidding units associated with any construction permit for which it holds a provisionally winning bid. Failure to maintain the requisite activity level would result in the use of an activity rule waiver, if any, or a reduction in the bidder's eligibility, possibly curtailing or eliminating the bidder's ability to place additional bids in the auction.

16. *Activity Rule Waivers and Reducing Eligibility.* When a bidder's activity in the current round is below the required minimum level, it may preserve its current level of eligibility through an activity rule waiver, if available. An activity rule waiver applies to an entire round of bidding, not to a particular construction permit. Activity rule waivers can be either proactive or automatic. Activity rule waivers are principally a mechanism for a bidder to avoid the loss of bidding eligibility in the event that exigent circumstances prevent it from bidding in a particular round.

17. The FCC auction bidding system will assume that a bidder that does not meet the activity requirement would prefer to use an activity rule waiver (if available) rather than lose bidding eligibility. Therefore, the system will automatically apply a waiver at the end of any bidding round in which a bidder's activity is below the minimum required unless (1) the bidder has no activity rule waivers remaining or (2) the bidder overrides the automatic application of a waiver by reducing eligibility, thereby meeting the activity requirement. If a bidder has no waivers remaining and does not satisfy the required activity level, the bidder's current eligibility will be permanently reduced, possibly curtailing or eliminating the ability to place additional bids in the auction.

18. A bidder with insufficient activity may wish to reduce its bidding eligibility rather than use an activity rule waiver. If so, the bidder must affirmatively override the automatic waiver mechanism during the bidding round by using the reduce eligibility function in the FCC auction bidding system. In this case, the bidder's eligibility would be permanently reduced to bring it into compliance with the specified activity requirement. Reducing eligibility is an irreversible action; once eligibility has been reduced, a bidder cannot regain its lost bidding eligibility.

19. Under the proposed simultaneous stopping rule, a bidder may apply an activity rule waiver proactively as a means to keep the auction open without placing a bid. If a bidder proactively applies an activity rule waiver (using the proactive waiver function in the FCC auction bidding system) during a bidding round in which no bids are placed or withdrawn (if bid withdrawals are permitted in this auction), the auction will remain open and the bidder's eligibility will be preserved. An automatic waiver applied by the FCC auction bidding system in a round in which there are no new bids, no bid withdrawal (if bid withdrawals are permitted in this auction), and no proactive waiver will not keep the auction open. Comment is requested on the proposal that each bidder in Auction 104 be provided with three activity rule waivers that may be used at the bidder's discretion during the course of the auction.

20. *Reserve Price or Minimum Opening Bids.* Normally, a reserve price is an absolute minimum price below which a construction permit will not be sold in a given auction. IATF, MB and OEA propose to establish no separate reserve prices for the Auction 104 construction permits available in Auction 104.

21. A minimum opening bid is the minimum bid price set at the beginning of the auction below which no bids are accepted. See 47 CFR 1.2104(c), (d). Attachment A of the *Auction 104 Comment Public Notice* lists a proposed minimum opening bid amount for each construction permit available in Auction 104. While minimum opening bid amounts for Auction 104 were determined by taking into account the type of service and class of facility offered, market size, population covered by the proposed broadcast facility, and recent broadcast transaction data, to the extent such information is available, consideration of such factors for Auction 104 is complicated by a dearth of such transaction data, the fact that a

permittee may opt to switch its intended use of such facility from LPTV to translator operation, or vice versa, and the lack of accurate data on the population that would be covered by each proposed facility. Consistent with 47 U.S.C. 309(j)(4)(f), IATF, MB and OEA seek comment on the minimum opening bid amounts specified in Attachment A of the *Auction 104 Comment Public Notice.*

22. If commenters believe that these minimum opening bid amounts will result in unsold construction permits, are not reasonable amounts, or should instead operate as reserve prices, they should explain why this is so and comment on the desirability of an alternative approach. Commenters should support their claims with valuation analyses and suggested amounts or formulas for reserve prices or minimum opening bids. IATF, MB and OEA particularly seek comment on factors that could reasonably have an impact on bidders' valuation of the broadcast spectrum, including the type of service offered, market size, population covered by the proposed broadcast facility, and any other relevant factors.

23. *Bid Amounts.* IATF, MB and OEA propose that, if the bidder has sufficient eligibility to place a bid on a particular construction permit in a round, an eligible bidder will be able to place a bid on that construction permit in any of up to nine different amounts. Under this proposal, the FCC auction bidding system interface will list the acceptable bid amounts for each construction permit.

24. The first of the acceptable bid amounts is called the minimum acceptable bid amount. The minimum acceptable bid amount for a construction permit will be equal to its minimum opening bid amount until there is a provisionally winning bid for the construction permit. After there is a provisionally winning bid for a construction permit, the minimum acceptable bid amount will be a certain percentage higher. The percentage used for this calculation, the minimum acceptable bid increment percentage, is multiplied by the provisionally winning bid amount, and the resulting amount is added to the provisionally winning bid amount. If, for example, the minimum acceptable bid increment percentage is 10%, then the provisionally winning bid amount is multiplied by 10%. The result of that calculation is added to the provisionally winning bid amount, and that sum is rounded using the Commission's standard rounding procedure for auctions. If bid withdrawals are permitted in this auction, in the case of a construction permit for which the provisionally winning bid has been withdrawn, the minimum acceptable bid amount will equal the second highest bid received for the construction permit.

25. The FCC will calculate the eight additional bid amounts using the minimum acceptable bid amount and an additional bid increment percentage. The minimum acceptable bid amount is multiplied by the additional bid increment percentage, and that result, rounded, is the additional increment amount. The first additional acceptable bid amount equals the minimum acceptable bid amount plus the additional increment amount. The second additional acceptable bid amount equals the minimum acceptable bid amount plus two times the additional increment amount; the third additional acceptable bid amount is the minimum acceptable bid amount plus three times the additional increment amount; etc. If, for example, the additional bid increment percentage is 5%, then the calculation of the additional increment amount is (minimum acceptable bid amount) * (0.05), rounded. The first additional acceptable bid amount equals (minimum acceptable bid amount) + (additional increment amount); the second additional acceptable bid amount equals (minimum acceptable bid amount) + (2 * (additional increment amount)); the third additional acceptable bid amount equals (minimum acceptable bid amount) + (3 * (additional increment amount)); etc. The results then will be rounded using the Commission's standard rounding procedures for auctions.

26. For Auction 104, IATF, MB and OEA propose to use a minimum acceptable bid increment percentage of 10%. This means that the minimum acceptable bid amount for a construction permit will be approximately 10% greater than the provisionally winning bid amount for the construction permit. To calculate the additional acceptable bid amounts, IATF, MB and OEA proposed to use an additional bid increment percentage of 5%. IATF, MB and OEA seek comment on these proposals.

27. IATF, MB and OEA propose to retain the discretion to change the minimum acceptable bid amounts, the minimum acceptable bid increment percentage, the additional bid increment percentage, and the number of acceptable bid amounts if circumstances so dictate. Further, IATF, MB and OEA propose to retain the discretion to do so on a construction-permit-by-construction-permit basis. IATF, MB and OEA also propose to retain the discretion to limit (a) the amount by which a minimum acceptable bid for a construction permit may increase compared with the corresponding provisionally winning bid, and (b) the amount by which an additional bid amount may increase compared with the immediately preceding acceptable bid amount. For example, a $1,000 limit could be set on increases in minimum acceptable bid amounts over provisionally winning bids. In this example, if calculating a minimum acceptable bid using the minimum acceptable bid increment percentage results in a minimum acceptable bid amount that is $1,200 higher than the provisionally winning bid on a construction permit, the minimum acceptable bid amount would instead be capped at $1,000 above the provisionally winning bid. IATF, MB and OEA seek comment on the circumstances under which such a limit should be employed, factors to be considered when determining the dollar amount of the limit, and the tradeoffs in setting such a limit or changing other parameters, such as changing the minimum acceptable bid percentage, the bid increment percentage, or the number of acceptable bid amounts. If IATF, MB and OEA exercise this discretion, they will alert bidders by announcement in the FCC auction bidding system during the auction. IATF, MB and OEA seek comment on these proposals.

28. *Provisionally Winning Bids.* At the end of each bidding round, the bidding system will determine a provisionally winning bid for each construction permit based on the highest bid amount received. A provisionally winning bid will remain the provisionally winning bid until there is a higher bid on the same construction permit at the close of a subsequent round. Provisionally winning bids at the end of the auction become the winning bids.

29. The auction bidding system assigns a random number to each bid when the bid is entered. This number is technically a pseudo-random number generated by an algorithm. If identical high bid amounts are submitted on a construction permit in any given round (*i.e.,* tied bids), the FCC auction bidding system will use a random number to select a single provisionally winning bid from among the tied bids. The tied bid with the highest random number wins the tiebreaker and becomes the provisionally winning bid. The remaining bidders, as well as the provisionally winning bidder, can submit higher bids in subsequent rounds. However, if the auction were to

close with no other bids being placed, the winning bidder would be the one that placed the provisionally winning bid. If the construction permit receives any bids in a subsequent round, the provisionally winning bid again will be determined by the highest bid amount received for the construction permit.

30. A provisionally winning bid will be retained until there is a higher bid on the construction permit at the close of a subsequent round, unless the provisionally winning bid is withdrawn (if bid withdrawals are permitted in this auction). Provisionally winning bids count toward a bidder's activity level for purposes of the activity rule.

31. *Bid Removal and Bid Withdrawal.* The FCC auction bidding system allows each bidder to remove any of the bids it placed in a round before the close of that round. By removing a bid placed within a round, a bidder effectively unsubmits the bid. A bidder removing a bid placed in the same round is not subject to a withdrawal payment. Once a round closes, a bidder is no longer permitted to remove a bid.

32. When permitted in an auction, bid withdrawals provide a bidder with the option of withdrawing a bid placed in a prior round that has become a provisionally winning bid. A bidder would be able to withdraw its provisionally winning bid using the withdraw function in the FCC auction bidding system. A bidder that withdraws its provisionally winning bid(s), if permitted in this auction, is subject to the bid withdrawal payment provisions of 47 CFR 1.2104(g) and 1.2109.

33. Based on the nature of the permits available in Auction 104 and on the experience with past auctions of broadcast construction permits, IATF, MB and OEA propose to prohibit bidders from withdrawing any bid after the close of the round in which the bid was placed. This proposal is made in light of the site- and applicant-specific nature and wide geographic dispersion of the permits available in this closed auction. I It is unlikely that bidders will have a need to withdraw bids in this auction. Also, bid withdrawals may encourage insincere bidding or increase opportunities for anti-competitive bidding in certain circumstances. Bid withdrawals, particularly those made late in this auction, could result in delays in licensing replacement LPTV/translator stations and disruption in providing broadcast service to the public. IATF, MB and OEA seek comment on their proposal to prohibit bid withdrawals in Auction 104.

C. Post-Auction Payments

34. *Interim Withdrawal Payment Percentage.* If bid withdrawals are permitted in Auction 104, a bidder that withdraws a bid during an auction is subject to a withdrawal payment equal to the difference between the amount of the withdrawn bid and the amount of the winning bid in the same or a subsequent auction. However, if a construction permit for which a bid has been withdrawn does not receive a subsequent higher bid or winning bid in the same auction, the FCC cannot calculate the final withdrawal payment until that construction permit receives a higher bid or winning bid in a subsequent auction. In accordance with 47 CFR 1.2104(g)(1), when that final withdrawal payment cannot yet be calculated, the FCC imposes on the bidder responsible for the withdrawn bid an interim bid withdrawal payment, which will be applied toward any final bid withdrawal payment that is ultimately assessed.

35. IATF, MB and OEA request comment on the proposal that the interim bid withdrawal payment be 20% of the withdrawn bid. Commenters advocating the use of bid withdrawals should also address the percentage of the interim bid withdrawal payment which may range from 3% to 20% of the withdrawn bid amount.

36. *Additional Default Payment Percentage.* Any winning bidder that defaults or is disqualified after the close of an auction (*i.e.,* fails to remit the required down payment by the specified deadline, fails to make a full and timely final payment, or whose long-form application is not granted for any reason or is otherwise disqualified) is liable for a default payment under 47 CFR 1.2104(g)(2). This default payment consists of a deficiency payment equal to the difference between the amount of the Auction 104 bidder's winning bid and the amount of the winning bid the next time a construction permit covering the same spectrum is won in an auction, plus an additional payment equal to a percentage of the defaulter's bid or of the subsequent winning bid, whichever is less.

37. Based on the nature of the service and the construction permits being offered, an additional default payment of 20% of the relevant bid is proposed for Auction 104. IATF, MB and OEA seek comment on this proposal.

V. Procedural Matters

A. Paperwork Reduction Act

38. This document does not contain new or modified information collection requirements subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104–13. Therefore, it also does not contain any new or modified information collection burden for small business concerns with fewer than 25 employees pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107–198. See 44 U.S.C. 3506(c)(4).

B. Ex Parte Rules

39. This proceeding has been designated as a permit-but-disclose proceeding in accordance with the Commission's ex parte rules, 47 CFR 1.1200(a), 1.1206. While additional information is provided in the *Auction 104 Comment Public Notice* on the relevant reporting requirements, participants in Auction 104 should familiarize themselves with the Commission's ex parte rules.

VI. Supplemental Initial Regulatory Flexibility Analysis

40. As required by the Regulatory Flexibility Act of 1980, as amended (RFA), 5 U.S.C. 603, the Commission prepared Initial Regulatory Flexibility Analyses (IRFAs) in connection with the 1997 *Broadcast Competitive Bidding Notice of Proposed Rulemaking* (NPRM), and other Commissions NPRMs (collectively, Competitive Bidding NPRMs) pursuant to which Auction 104 will be conducted. Final Regulatory Flexibility Analyses (FRFAs) likewise were prepared in the 1998 *Broadcast Competitive Bidding Order* and other Commission rulemaking orders (collectively, Competitive Bidding Orders) pursuant to which Auction 104 will be conducted. The Incentive Auction Task Force (IATF), the Media Bureau (MB) and the Office of Economics and Analytics (OEA) have prepared this Supplemental IRFA of the possible significant economic impact on small entities of the policies and rules addressed in the *Auction 104 Comment Public Notice,* to supplement the Commission's Initial and Final Regulatory Flexibility Analyses completed in the *Broadcast Competitive Bidding Order* and other Commission orders pursuant to which Auction 104 will be conducted. Written public comments are requested on this Supplemental IRFA. Comments must be identified as responses to the Supplemental IRFA and must be filed by the same filing deadlines for comments specified on the first page of the *Auction 104 Comment Public Notice.* The Commission will send a copy of the Public Notice, including this Supplemental IRFA, to the Chief Counsel for Advocacy of the Small

Business Administration (SBA). 5 U.S.C. 603(a).

41. *Need for, and Objectives of, the Public Notice.* The proposed procedures for the conduct of Auction 104 as described in the *Auction 104 Comment Public Notice* would constitute the more specific implementation of the competitive bidding rules contemplated by 47 CFR parts 1 and 73, adopted by the Commission in multiple notice-and-comment rulemaking proceedings, including the Commission's establishing in the underlying rulemaking orders additional procedures to be used on delegated authority. More specifically, the *Auction 104 Comment Public Notice* seeks comment on proposed procedures, terms and conditions governing Auction 104 and the post-auction payment processes, as well as seeking comment on the minimum opening bid amounts for 6 specified construction permits, and are fully consistent with the underlying rulemaking orders, including the *Broadcast Competitive Bidding Order* and other relevant competitive bidding orders.

42. Consistent with 47 U.S.C. 309(j)(3)(E)(i), the *Auction 104 Comment Public Notice* is intended to provide notice of and adequate time for Auction 104 applicants to comment on proposed auction procedures. To promote the efficient and fair administration of the competitive bidding process for all Auction 104 participants, including small businesses, IATF, MB and OEA seek comment on the following proposed procedures: (1) Use of a simultaneous multiple-round auction format, consisting of sequential bidding rounds with a simultaneous stopping rule (with discretion to exercise alternative stopping rules under certain circumstances); (2) A specific minimum opening bid amount for each construction permit available in Auction 104; (3) A specific number of bidding units for each construction permit; (4) A specific upfront payment amount for each construction permit; (5) Establishment of a bidder's initial bidding eligibility in bidding units based on that bidder's upfront payment through assignment of a specific number of bidding units for each construction permit; (6) Use of an activity requirement so that bidders must bid actively during the auction rather than waiting until late in the auction before participating; (7) A single stage auction in which a qualified bidder is required to be active on 100% of its bidding eligibility in each round of the auction; (8) Provision of three activity rule waivers for each qualified bidder to allow it to preserve eligibility during the course of the auction; (9) Use of minimum acceptable bid amounts and additional bid increments, along with a proposed methodology for calculating such amounts, while retaining discretion to change their methodology if circumstances dictate; (10) A procedure for breaking ties if identical high bid amounts are submitted on a construction permit in a given round; (11) Whether to permit bid withdrawals in Auction 104; (12) Establishment of an interim bid withdrawal percentage of 20% of the withdrawn bid in the event bid withdrawals are permitted in Auction 104; and (13) Establishment of an additional default payment of 20% under 47 CFR 1.2104(g)(2) in the event that a winning bidder defaults or is disqualified after the auction.

43. *Legal Basis.* The Commission's statutory obligations to small businesses participating in a spectrum auction under the Communications Act of 1934, as amended (the Act), are found in 47 U.S.C. 309(j)(3)(B) and 309(j)(4)(D). The statutory basis for the Commission's competitive bidding rules is found in various provisions of the Act, including 47 U.S.C. 154(i), 301, 303(e), 303(f), 303(r), 304, 307, and 309(j). The Commission has established a framework of competitive bidding rules pursuant to which it has conducted auctions since the inception of the auction program in 1994 and would conduct Auction 104. The Commission has directed that OEA, in conjunction with MB, under delegated authority, seek comment on a variety of auction-specific procedures prior to the start of bidding in each auction.

44. *Description and Estimate of the Number of Small Entities to Which the Proposed Procedures Will Apply.* The RFA directs agencies to provide a description of and, where feasible, an estimate of the number of small entities that may be affected by the proposed procedures, if adopted. 5 U.S.C. 603(b)(3). The RFA generally defines the term small entity as having the same meaning as the terms small business, small organization, and small government jurisdiction. 5 U.S.C. 601(6). In addition, the term small business has the same meaning as the term small business concern under the Small Business Act. 5 U.S.C. 601(3). A small business concern is one which: (1) Is independently owned and operated, (2) is not dominant in its field of operation, and (3) satisfies any additional criteria established by the SBA. 15 U.S.C. 632.

45. The specific procedures and minimum opening bid amounts on which comment is sought in the *Auction 104 Comment Public Notice* will affect directly all applicants participating in Auction 104. There are a maximum of 14 individuals or entities that may become qualified bidders in Auction 104, in which applicant eligibility is closed. Therefore, the specific competitive bidding procedures and minimum opening bid amounts described in the *Auction 104 Comment Public Notice* will affect only the 14 individuals or entities listed in Attachment A to the *Auction 104 Comment Public Notice* and that are the only parties eligible to complete the remaining steps to become qualified to bid in Auction 104. These specific 14 Auction 104 individuals or entities include firms of all sizes.

46. *Television Broadcasting.* This U.S. Economic Census category comprises establishments primarily engaged in broadcasting images together with sound. These establishments operate television broadcast studios and facilities for the programming and transmission of programs to the public. These establishments also produce or transmit visual programming to affiliated broadcast television stations, which in turn broadcast the programs to the public on a predetermined schedule. Programming may originate in their own studio, from an affiliated network, or from external sources. The SBA has created the following small business size standard for such businesses: Those having $38.5 million or less in annual receipts. 13 CFR 121.201. The 2012 Economic Census reports that 751 firms in this category operated in that year. Of that number, 656 had annual receipts of $25 million or less, 25 had annual receipts between $25 million and $49,999,999 and 70 had annual receipts of $50 million or more. Based on this data, OEA, in conjunction with MB, estimate that the majority of commercial television broadcast stations are small entities under the applicable size standard.

47. The Commission has estimated the number of licensed commercial television stations to be 1,373. Of this total, 1,270 stations (or about 92.5%) had revenues of $38.5 million or less, according to Commission staff review of the BIA Kelsey Inc. Media Access Pro Television Database (BIA) in November of 2018, and therefore these stations qualify as small entities under the SBA definition.

48. The Commission has estimated the number of licensed noncommercial educational (NCE) television stations to be 388. These stations are non-profit, and therefore are considered to be small entities. 5 U.S.C. 601(4), (6).

49. According to Commission estimates, there are 2,295 LPTV stations,

including Class A stations, and 3,654 TV translators. Given the nature of these services, it is presumed that all of these entities qualify as small entities under the SBA small business size standard. The SBA size standard data does not enable us, however, to make a meaningful estimate of the number of small entities that may participate in Auction 104.

50. In assessing whether a business entity qualifies as small under the SBA definition, business control affiliations must be included. 13 CFR 121.103(a)(1). The estimate of the number of small entities that might be affected by Auction 104 likely overstates the estimate because the revenue figure on which business concerns are based does not include or aggregate revenues from affiliated companies. Moreover, the definition of small business also requires that an entity not be dominant in its field of operation and that the entity be independently owned and operated. The estimate of small businesses to which Auction 104 competitive bidding rules may apply does not exclude any radio station from the definition of a small business on these bases and is therefore over-inclusive to that extent. OEA, in conjunction with the Media Bureau, are unable at this time to define or quantify the criteria that would establish whether a specific LPTV station or TV translator is dominant in its field of operation. In addition, it is difficult to assess these criteria in the context of media entities and therefore estimates of small businesses to which they apply may be over-inclusive to this extent.

51. OEA, in conjunction with MB, are unable to accurately develop an estimate of how many of these 14 individuals or entities in this auction are small businesses based on the number of small entities that applied to participate in prior broadcast auctions because that information is not collected from applicants for broadcast auctions in which bidding credits are not based on an applicant's size (as is the case in auctions of licenses for wireless services). OEA, in conjunction with MB, conclude, however, that the majority of Auction 104 eligible bidders would likely meet the SBA's definition of a small business concern.

52. *Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities.* The *Auction 104 Comment Public Notice* proposes no new reporting, recordkeeping, or other compliance requirements for small entities or other auction applicants. The Commission designed the auction application process itself to minimize reporting and compliance requirements for applicants, including small business applicants. To participate in this auction parties will file streamlined, short-form applications in which they certify under penalty of perjury as to their qualifications. Eligibility to participate in bidding is based on an applicant's short-form application and certifications, as well as its upfront payment. In the second phase of the process, there are additional compliance requirements for winning bidders. Thus, a small business that fails to become a winning bidder does not need to satisfy additional requirements of a winning bidder.

53. *Steps Taken to Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered.* The RFA requires an agency to describe any significant, specifically small business, alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): (1) The establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities; (3) the use of performance rather than design standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities. 5 U.S.C. 603(c).

54. OEA, in conjunction with MB, intend that the proposals of the *Auction 104 Comment Public Notice* to facilitate participation in Auction 104 will result in both operational and administrative cost savings for small entities and other auction participants. In light of the numerous resources that will be available from the Commission at no cost, the processes and procedures proposed for Auction 104 in the *Auction 104 Comment Public Notice* should result in minimal economic impact on small entities. For example, prior to the auction, the Commission will hold a mock auction to allow eligible bidders the opportunity to familiarize themselves with both the bidding processes and systems that will be used in Auction 104. During the auction, participants will be able to access and participate in bidding via the internet using a web-based system, or telephonically, providing two cost-effective methods of participation and avoiding the cost of travel for in-person participation. Further, small entities as well as other auction participants will be able to avail themselves of a telephone hotline for assistance with auction processes and procedures as well as a telephone technical support hotline to assist with issues such as access to or navigation within the electronic FCC Form 175 and use of the FCC's auction system. In addition, all auction participants, including small business entities, will have access to various other sources of information and databases through the Commission that will aid in both their understanding of and participation in the process. These mechanisms are made available to facilitate participation in Auction 104 by all eligible bidders and may result in significant cost savings for small business entities that utilize these mechanisms. These steps, coupled with the advance description of the bidding procedures in Auction 104, should ensure that the auction will be administered efficiently and fairly, thus providing certainty for small entities as well as other auction participants.

55. *Federal Rules that May Duplicate, Overlap, or Conflict with the Proposed Rules.* None.

Federal Communications Commission.

Gary Michaels,

Deputy Chief, Auctions Division, Office of Economics and Analytics.

[FR Doc. 2019–07458 Filed 4–12–19; 8:45 am]

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Notices

Federal Register

Vol. 84, No. 72

Monday, April 15, 2019

This section of the FEDERAL REGISTER contains documents other than rules or proposed rules that are applicable to the public. Notices of hearings and investigations, committee meetings, agency decisions and rulings, delegations of authority, filing of petitions and applications and agency statements of organization and functions are examples of documents appearing in this section.

DEPARTMENT OF AGRICULTURE

Animal and Plant Health Inspection Service

[Docket No. APHIS–2017–0018]

Draft Environmental Impact Statement and Preliminary Pest Risk Assessment for Permit for Release of Genetically Engineered Citrus Tristeza Virus

AGENCY: Animal and Plant Health Inspection Service, USDA.

ACTION: Notice of availability; reopening of comment period.

SUMMARY: We are reopening the comment period for our notice that made available a draft environmental impact statement (EIS) and preliminary pest risk assessment (PRA) regarding the potential environmental impacts and plant pest risk associated with the proposed environmental release of genetically engineered *Citrus tristeza virus.* We have updated the EIS and PRA in light of recently published scientific research regarding the vectoring of *Citrus tristeza virus,* and are making the updated EIS and PRA available for public review and comment. This action will allow interested persons additional time to prepare and submit comments on these revised documents.

DATES: The comment period for the notice published on May 17, 2018 (83 FR 22944–22945) is reopened. We will consider all comments that we receive on or before April 30, 2019.

ADDRESSES: You may submit comments by either of the following methods:

- *Federal eRulemaking Portal:* Go to *http://www.regulations.gov/#!docket Detail;D=APHIS-2017-0018.*
- *Postal Mail/Commercial Delivery:* Send your comment to Docket No. APHIS–2017–0018, Regulatory Analysis and Development, PPD, APHIS, Station 3A–03.8, 4700 River Road Unit 118, Riverdale, MD 20737–1238.

Supporting documents and any comments we receive on this docket may be viewed at *http:// www.regulations.gov/#!docket Detail;D=APHIS-2017-0018* or in our reading room, which is located in Room 1141 of the USDA South Building, 14th Street and Independence Avenue SW, Washington, DC. Normal reading room hours are 8 a.m. to 4:30 p.m., Monday through Friday, except holidays. To be sure someone is there to help you, please call (202) 799–7039 before coming.

FOR FURTHER INFORMATION CONTACT: Dr. Margaret Jones, Senior Biotechnologist, Plant Pests, and Protectants Branch, Biotechnology Regulatory Services, APHIS, 4700 River Road Unit 147, Riverdale, MD 20737–1238; (301) 851–3916, email: *Margaret.J.Jones@ .usda.gov.* To obtain copies of the documents, contact Ms. Cindy Eck at (301) 851–3892, email: *Cynthia.A.Eck@ .usda.gov.*

SUPPLEMENTARY INFORMATION:

Background

Under the authority of the plant pest provisions of the Plant Protection Act (PPA), as amended (7 U.S.C. 7701 *et seq.*), the regulations in 7 CFR part 340, ''Introduction of Organisms and Products Altered or Produced Through Genetic Engineering Which Are Plant Pests or Which There Is Reason to Believe Are Plant Pests,'' regulate, among other things, the introduction (importation, interstate movement, or release into the environment) of organisms and products altered or produced through genetic engineering that are plant pests or that there is reason to believe are plant pests. Such genetically engineered organisms and products are considered ''regulated articles.'' The regulations in § 340.2 contain a list of organisms considered to be regulated articles, including all members of groups containing plant viruses, and all insect viruses.

The regulations in § 340.4(a) provide that any person may submit an application for a permit for the introduction of a regulated article to the Animal and Plant Health Inspection Service (APHIS). Southern Gardens Citrus Nursery, LLC, has submitted an application seeking a permit for the environmental release of genetically engineered *Citrus tristeza virus* throughout the State of Florida. The virus has been genetically engineered to express defensin proteins from spinach as a biological control approach to manage citrus greening disease in the State of Florida. Citrus greening disease, also called huanglongbing, was first detected in the United States in 2005 in Florida, and has since become a devastating disease of citrus within the United States.

In response to this request, on May 17, 2018, we published in the **Federal Register** (83 FR 22944–22945, Docket No. APHIS–2017–0018) a notice [1] that made available a draft environmental impact statement (EIS) and preliminary pest risk assessment (PRA) regarding the potential environmental impacts and plant pest risk associated with the proposed environmental release of the virus. Comments on the notice were required to be received on or before June 25, 2018.

Following the close of the comment period, an article [2] was published in the *Archives of Virology* regarding the interaction of different strains of *Citrus tristeza virus* within citrus. Harper *et al.* found that, under laboratory-optimized conditions, if citrus plants contain more than one strain of the virus, aphid transmission of the virus could be affected.

While these findings do not affect the overall conclusions of the PRA or EIS, they are not reflected in statements that we made in the two documents regarding the transmissibility of the virus. Accordingly, we have updated the PRA and EIS to incorporate the findings of Harper *et al.*

We are reopening the comment period on Docket No. APHIS–2017–0018 for an additional 15 days, and are making the updated PRA and EIS available for public review and comment. This action will allow interested persons additional time to prepare and submit comments.

[1] To view the notice and the comments that we received, go to *http://www.regulations.gov/#!docket Detail;D=APHIS-2017-0018.*

[2] Harper, S.J., S.J. Cowell, and W.O. Dawson, ''Bottlenecks and Complementation in the Aphid Transmission of Citrus Tristeza Virus Populations'', *Archives of Virology,* 163: 12 (December 2018), 3373–3376. Referred to below as ''Harper *et al.*''

Done in Washington, DC, this 10th day of April 2019.

Kevin Shea,

Administrator, Animal and Plant Health Inspection Service.

[FR Doc. 2019–07439 Filed 4–12–19; 8:45 am]

BILLING CODE 3410–34–P

COMMISSION ON CIVIL RIGHTS

Agenda and Notice of Public Meeting of the Massachusetts Advisory Committee

AGENCY: Commission on Civil Rights.

ACTION: Announcement of briefing on labor trafficking.

SUMMARY: Notice is hereby given, pursuant to the provisions of the rules and regulations of the U.S. Commission on Civil Rights (Commission), and the Federal Advisory Committee Act (FACA), that a briefing meeting of the Massachusetts Advisory Committee to the Commission will convene on Friday, April 26, 2019, at 10 a.m. to 2:00 p.m. (EDT) in Room 437 of the State House, 24 Beacon Street, Boston, MA 02133. The purpose of the briefing meeting is to hear from government officials, advocates, and the public on labor trafficking in Massachusetts.

DATES: Friday, April 26, 2019 at 10 a.m. to 2:00 p.m. (EDT).

ADDRESSES: Room 437, State House, 24 Beacon Street, Boston, MA 02133.

FOR FURTHER INFORMATION CONTACT: Evelyn Bohor, at *ero@usccr.gov* or by phone at 202–376–7533.

SUPPLEMENTARY INFORMATION: If other persons who plan to attend the meeting require other accommodations, please contact Evelyn Bohor at *ebohor@usccr.gov* at the Eastern Regional Office at least ten (10) working days before the scheduled date of the meeting. Time will be set aside at the end of the meeting so that members of the public may address the Committee after the planning meeting. Persons interested in the issue are also invited to submit written comments; the comments must be received in the regional office by Monday, April 29, 2019. Written comments may be mailed to the Eastern Regional Office, U.S. Commission on Civil Rights, 1331 Pennsylvania Avenue, Suite 1150, Washington, DC 20425, faxed to (202) 376–7548, or emailed to Evelyn Bohor at *ero@usccr.gov.* Persons who desire additional information may contact the Eastern Regional Office at (202) 376–7533.

Records and documents discussed during the meeting will be available for public viewing as they become available at: *https://gsageo.force.com/FACA/FACAPublicViewCommitteeDetails?id=a10t0000001gzllAAA.* Records generated from this meeting may also be inspected and reproduced at the Eastern Regional Office, as they become available, both before and after the meeting. Persons interested in the work of this advisory committee are advised to go to the Commission's website, *www.usccr.gov,* or to contact the Eastern Regional Office at the above phone number, email or street address.

Agenda

Friday, April 26, 2019 at 10 a.m. to 2:00 p.m. (EDT)

I. Welcome and Introductions
II. Briefing on Labor Trafficking
V. Open Comment
VI. Adjournment

Exceptional Circumstance: Pursuant to 41 CFR 102–3.150, the notice for this meeting is given less than 15 calendar days prior to the meeting because of the exceptional circumstances of the federal government shutdown.

Dated: April 9, 2019.

David Mussatt,

Supervisory Chief, Regional Programs Unit.

[FR Doc. 2019–07348 Filed 4–12–19; 8:45 am]

BILLING CODE P

COMMISSION ON CIVIL RIGHTS

Agenda and Notice of Public Meeting of the Rhode Island Advisory Committee

AGENCY: Commission on Civil Rights.

ACTION: Announcement of meeting.

SUMMARY: Notice is hereby given, pursuant to the provisions of the rules and regulations of the U.S. Commission on Civil Rights (Commission), and the Federal Advisory Committee Act (FACA), that a meeting of the Rhode Island Advisory Committee to the Commission will convene at 12:00 p.m. (EDT) on Tuesday, April 30, 2019, at Barrett and Singal, One Richmond Sq., Suite 165W, Main Conference Room, Providence, RI 02906. The purpose of the meeting is to discuss the Committee's next civil rights project.

DATES: Tuesday, April 30, 2019 (EDT).

Time: 12:00 p.m.

ADDRESSES: Barrett and Singal, One Richmond Sq., Suite 165W, Providence, RI 02906.

FOR FURTHER INFORMATION CONTACT: Evelyn Bohor at *ero@usccr.gov,* or 202–376–7533.

SUPPLEMENTARY INFORMATION: Persons who plan to attend the meeting and who require other accommodations, please contact Evelyn Bohor at *ebohor@usccr.gov* at least ten (10) working days before the scheduled date of the meeting.

Members of the public are invited to submit written comments; the comments must be received in the regional office by Thursday, May 30, 2019. Written comments may be mailed to the Eastern Regional Office, U.S. Commission on Civil Rights, 1331 Pennsylvania Avenue, Suite 1150, Washington, DC 20425, faxed to (202) 376–7548, or emailed to Evelyn Bohor at *ero@usccr.gov.* Persons who desire additional information may contact the Eastern Regional Office at (202) 376–7533.

The activities of this advisory committee, including records and documents discussed during the meeting, will be available for public viewing, as they become available at: *https://www.facadatabase.gov/FACA/FACAPublicViewCommitteeDetails?id=a10t0000001gzm4AAA.* Records generated from this meeting may also be inspected and reproduced at the Eastern Regional Office, as they become available, both before and after the meeting. Persons interested in the work of this advisory committee are advised to go to the Commission's website, *www.usccr.gov,* or to contact the Eastern Regional Office at the above phone number, email or street address.

Agenda

Tuesday, April 30, 2019; 12:00 p.m. (EDT)

Discussion of Licensing Project
Discussion of Hate Crimes Briefing
Open Comment
Adjourn

Dated: April 9, 2019.

David Mussatt,

Supervisory Chief, Regional Programs Unit.

[FR Doc. 2019–07349 Filed 4–12–19; 8:45 am]

BILLING CODE P

COMMISSION ON CIVIL RIGHTS

Notice of Public Meeting of the Alabama Advisory Committee To Discuss Civil Rights Topics in the State

AGENCY: U.S. Commission on Civil Rights.

ACTION: Announcement of meeting.

SUMMARY: Notice is hereby given, pursuant to the provisions of the rules and regulations of the U.S. Commission on Civil Rights (Commission) and the Federal Advisory Committee Act that

the Alabama Advisory Committee (Committee) will hold a meeting on Friday, April 19, 2019, at 11:00 a.m. (Central) for the purpose discussing civil rights topics in the state.

DATES: The meeting will be held on Friday, April 19, 2019, at 11:00 a.m. (Central).

Public Call Information: Dial: 877–260–1479, Conference ID: 5632778.

FOR FURTHER INFORMATION CONTACT: David Barreras, DFO, at *dbarreras@usccr.gov* or 312–353–8311

SUPPLEMENTARY INFORMATION: Members of the public can listen to the discussion. This meeting is available to the public through the following toll-free call-in number: 877–260–1479, conference ID: 5632778. Any interested member of the public may call this number and listen to the meeting. An open comment period will be provided to allow members of the public to make a statement as time allows. The conference call operator will ask callers to identify themselves, the organization they are affiliated with (if any), and an email address prior to placing callers into the conference room. Callers can expect to incur regular charges for calls they initiate over wireless lines, according to their wireless plan. The Commission will not refund any incurred charges. Callers will incur no charge for calls they initiate over land-line connections to the toll-free telephone number. Persons with hearing impairments may also follow the proceedings by first calling the Federal Relay Service at 1–800–977–8339 and providing the Service with the conference call number and conference ID number.

Members of the public are also entitled to submit written comments; the comments must be received in the regional office within 30 days following the meeting. Written comments may be mailed to the Midwestern Regional Office, U.S. Commission on Civil Rights, 230 S Dearborn Street, Suite 2120, Chicago, IL 60604. They may also be faxed to the Commission at (312) 353–8324 or emailed to David Barreras at *dbarreras@usccr.gov.* Persons who desire additional information may contact the Midwestern Regional Office at (312) 353–8311.

Records generated from this meeting may be inspected and reproduced at the Midwestern Regional Office, as they become available, both before and after the meeting. Records of the meeting will be available via *www.facadatabase.gov* under the Commission on Civil Rights, Alabama Advisory Committee link (*https://www.facadatabase.gov/FACA/FACAPublicCommittee?id=a10t0000001gzlLAAQ*). Persons interested in the work of this Committee are directed to the Commission's website, *http://www.usccr.gov,* or may contact the Midwestern Regional Office at the above email or street address.

Agenda

Welcome and Roll Call
Discussion of Barriers to Voting Report
Discussion of Next Topics for study
Next Steps
Public Comment
Adjournment

Dated: April 9, 2019.

David Mussatt,

Supervisory Chief, Regional Programs Unit.

[FR Doc. 2019–07355 Filed 4–12–19; 8:45 am]

BILLING CODE P

COMMISSION ON CIVIL RIGHTS

Agenda and Notice of Public Meeting of the Vermont Advisory Committee

AGENCY: Commission on Civil Rights.

ACTION: Announcement of briefing meeting.

SUMMARY: Notice is hereby given, pursuant to the provisions of the rules and regulations of the U.S. Commission on Civil Rights (Commission), and the Federal Advisory Committee Act (FACA), that a briefing meeting of the Vermont Advisory Committee to the Commission will convene at 10:00 a.m. (EDT) on Monday, May 20, 2019, in Room 11 at the State House, 115 State Street, Montpelier, VT 05633. The purpose of the briefing is to hear from government officials, school officials, advocates, and members of the public about disparities in school discipline.

DATES: Monday, May 20, 2019 (EDT).

Time: 10:00 a.m.–3:00 p.m.

ADDRESSES: Room 11, State House, 115 State Street, Montpelier, VT 05633.

FOR FURTHER INFORMATION CONTACT: Evelyn Bohor at *ebohor@usccr.gov,* or 202–376–7533.

SUPPLEMENTARY INFORMATION: If other persons who plan to attend the meeting require other accommodations, please contact Evelyn Bohor at *ebohor@usccr.gov* at the Eastern Regional Office at least ten (10) working days before the scheduled date of the meeting.

Time will be set aside at the end of the briefing so that members of the public may address the Committee after the formal presentations have been completed. Persons interested in the issue are also invited to submit written comments; the comments must be received in the regional office by Thursday, June 20, 2019. Written comments may be mailed to the Eastern Regional Office, U.S. Commission on Civil Rights, 1331 Pennsylvania Avenue, Suite 1150, Washington, DC 20425, faxed to (202) 376–7548, or emailed to Evelyn Bohor at *ero@usccr.gov.* Persons who desire additional information may contact the Eastern Regional Office at (202) 376–7533.

Records and documents discussed during the meeting will be available for public viewing as they become available at *https://www.facadatabase.gov/FACA/FACAPublicViewCommitteeDetails?id=a10t0000001gzmXAAQ,* and clicking on the ''Meeting Details'' and ''Documents'' links. Records generated from this meeting may also be inspected and reproduced at the Eastern Regional Office, as they become available, both before and after the meeting. Persons interested in the work of this advisory committee are advised to go to the Commission's website, *www.usccr.gov,* or to contact the Eastern Regional Office at the above phone number, email or street address.

Tentative Agenda

Monday, May 20, 2019 at 10:00 a.m.

I. Welcome and Introductions
II. Briefing
III. Open Session
IV. Adjournment

Dated: April 9, 2019.

David Mussatt,

Supervisory Chief, Regional Programs Unit.

[FR Doc. 2019–07350 Filed 4–12–19; 8:45 am]

BILLING CODE 6335–01–P

COMMISSION ON CIVIL RIGHTS

Sunshine Act Meeting Notice

AGENCY: U.S. Commission on Civil Rights.

ACTION: Announcement of public meeting of Illinois Advisory Committee.

SUMMARY: Notice is hereby given, pursuant to the provisions of the rules and regulations of the U.S. Commission on Civil Rights (Commission) and the Federal Advisory Committee Act that the Illinois Advisory Committee (Committee) will hold a meeting on Friday, May 3, 2019, from 9:00 a.m. to 4:30 p.m. Central Time for the purpose of hearing testimony on fair housing issues in the state.

DATES: Friday, May 3, 2019, at 9:00 a.m. Central Time.

ADDRESSES: Ralph H. Metcalfe Federal Building, 77 W Jackson Blvd., Room 331, Chicago, IL 60604.

FOR FURTHER INFORMATION CONTACT: Alejandro Ventura, Designated Federal Official, at *aventura@usccr.gov* or 213–894–3437.

SUPPLEMENTARY INFORMATION: This meeting is free and open to the public. Persons with disabilities requiring reasonable accommodations should contact the Midwest Regional Office 10 days prior to the meeting to make appropriate arrangements. Members of the public are invited to make statements during an open comment period, beginning at 3:30 p.m. In addition, members of the public may submit written comments; the comments must be received in the regional office within 30 days following the meeting. Written comments may be mailed to the Midwestern Regional Office, U.S. Commission on Civil Rights, 230 South Dearborn St., Suite 2120, Chicago, IL 60604. They may also be faxed to the Commission at (312) 353–8324, or emailed to Carolyn Allen at *callen@usccr.gov.* Persons who desire additional information may contact the Midwestern Regional Office at (312) 353–8311.

Records generated from this meeting may be inspected and reproduced at the Midwestern Regional Office, as they become available, both before and after the meeting. Records of the meeting will be available via *www.facadatabase.gov* under the Commission on Civil Rights, Illinois Advisory Committee link. Persons interested in the work of this Committee are directed to the Commission's website, *http://www.usccr.gov,* or may contact the Midwestern Regional Office at the above email or street address.

Agenda

I. Opening Remarks and Introductions (9:00 a.m.–9:30 a.m.)

II. Panelist Briefings (9:30 a.m.–12:00 p.m.)

III. Break (12:00 p.m.–1:00 p.m.)

IV. Panelist Briefings (1:00 p.m.–3:30 p.m.)

V. Public Comments (3:30 p.m.–4:15 p.m.)

VI. Closing Remarks (4:15 p.m.–4:30 p.m.)

Dated: April 11, 2019.

Brian Walch,

Director, Communications and Public Engagement.

[FR Doc. 2019–07570 Filed 4–11–19; 4:15 pm]

BILLING CODE 6335–01–P

COMMISSION ON CIVIL RIGHTS

Notice of Public Meeting of the Arizona Advisory Committee

AGENCY: U.S. Commission on Civil Rights.

ACTION: Announcement of meeting.

SUMMARY: Notice is hereby given, pursuant to the provisions of the rules and regulations of the U.S. Commission on Civil Rights (Commission) and the Federal Advisory Committee Act (FACA) that the meeting of the Arizona Advisory Committee (Committee) to the Commission will be held at 12 p.m. (Arizona Time) Wednesday, May 1, 2019. The purpose of the meeting is for the Committee to share and discuss potential civil rights topics to study.

DATES: The meeting will be held on Wednesday May 1, 2019 at 12 p.m. Arizona Time.

PUBLIC CALL INFORMATION:

Dial: 800–682–0995.

Conference ID: 2774356.

FOR FURTHER INFORMATION CONTACT: Alejandro Ventura (DFO) at *aventura@usccr.gov* or (213) 894–3437.

SUPPLEMENTARY INFORMATION: This meeting is available to the public through the following toll-free call-in number: 800–682–0995, conference ID number: 2774356. Any interested member of the public may call this number and listen to the meeting. Callers can expect to incur charges for calls they initiate over wireless lines, and the Commission will not refund any incurred charges. Callers will incur no charge for calls they initiate over land-line connections to the toll-free telephone number. Persons with hearing impairments may also follow the proceedings by first calling the Federal Relay Service at 1–800–877–8339 and providing the Service with the conference call number and conference ID number.

Members of the public are entitled to make comments during the open period at the end of the meeting. Members of the public may also submit written comments; the comments must be received in the Regional Programs Unit within 30 days following the meeting. Written comments may be mailed to the Western Regional Office, U.S. Commission on Civil Rights, 300 North Los Angeles Street, Suite 2010, Los Angeles, CA 90012. They may be faxed to the Commission at (213) 894–0508, or emailed Alejandro Ventura at *aventura@usccr.gov.* Persons who desire additional information may contact the Regional Programs Unit at (213) 894–3437.

Records and documents discussed during the meeting will be available for public viewing prior to and after the meetings at *https://www.facadatabase.gov/FACA/FACAPublicViewCommitteeDetails?id=a10t0000001gzl2AAA.*

Please click on the ''Committee Meetings'' tab. Records generated from these meetings may also be inspected and reproduced at the Regional Programs Unit, as they become available, both before and after the meetings. Persons interested in the work of this Committee are directed to the Commission's website, *https://www.usccr.gov,* or may contact the Regional Programs Unit at the above email or street address.

Agenda

I. Welcome and Roll Call

II. Approval of Minutes From March 25, 2019 Meeting

III. Share and Discuss Potential Topics To Study

IV. Next Steps

V. Public Comment

VI. Adjournment

Dated: April 9, 2019.

David Mussatt,

Supervisory Chief, Regional Programs Unit.

[FR Doc. 2019–07346 Filed 4–12–19; 8:45 am]

BILLING CODE 6335–01–P

COMMISSION ON CIVIL RIGHTS

Notice of Public Meeting of the New Mexico Advisory Committee

AGENCY: U.S. Commission on Civil Rights.

ACTION: Announcement of meeting.

SUMMARY: Notice is hereby given, pursuant to the provisions of the rules and regulations of the U.S. Commission on Civil Rights (Commission) and the Federal Advisory Committee Act (FACA) that a meeting of the New Mexico Advisory Committee (Committee) to the Commission will be held at 1:00 p.m. (Mountain Time) Wednesday, April 24, 2019. The purpose of the meeting is for the Committee to share and discuss potential civil rights topics to study.

DATES: The meeting will be held on Wednesday, April 24, 2019, at 1:00 p.m. Mountain Time.

Public Call Information: Dial: 855–719–5012. Conference ID: 2014165.

FOR FURTHER INFORMATION CONTACT: Alejandro Ventura at *aventura@usccr.gov* or (213) 894–3437.

SUPPLEMENTARY INFORMATION: This meeting is available to the public through the following toll-free call-in

number: 855–719–5012, conference ID number: 2014165. Any interested member of the public may call this number and listen to the meeting. Callers can expect to incur charges for calls they initiate over wireless lines, and the Commission will not refund any incurred charges. Callers will incur no charge for calls they initiate over land-line connections to the toll-free telephone number. Persons with hearing impairments may also follow the proceedings by first calling the Federal Relay Service at 1–800–877–8339 and providing the Service with the conference call number and conference ID number.

Members of the public are entitled to make comments during the open period at the end of the meeting. Members of the public may also submit written comments; the comments must be received in the Regional Programs Unit within 30 days following the meeting. Written comments may be mailed to the Western Regional Office, U.S. Commission on Civil Rights, 300 North Los Angeles Street, Suite 2010, Los Angeles, CA 90012. They may be faxed to the Commission at (213) 894–0508, or emailed Alejandro Ventura at *aventura@usccr.gov.* Persons who desire additional information may contact the Regional Programs Unit at (213) 894–3437.

Records and documents discussed during the meeting will be available for public viewing prior to and after the meeting at *https://www.facadatabase.gov/FACA/FACAPublicViewCommitteeDetails?id=a10t0000001gzlGAAQ.*

Please click on ''Committee Meetings'' tab. Records generated from this meeting may also be inspected and reproduced at the Regional Programs Unit, as they become available, both before and after the meeting. Persons interested in the work of this Committee are directed to the Commission's website, *http://www.usccr.gov,* or may contact the Regional Programs Unit at the above email or street address.

Agenda

I. Welcome and Roll Call
II. Approval of minutes from March 21, 2019 meeting
III. Share and Discuss Potential Civil Rights Topics of Study
IV. Next Steps
V. Public Comment
VI. Adjournment

Exceptional Circumstance: Pursuant to 41 CFR 102–3.150, the notice for this meeting is given less than 15 calendar days prior to the meeting because of the exceptional circumstances of the federal government shutdown.

Dated: April 9, 2019.

David Mussatt,

Supervisory Chief, Regional Programs Unit.

[FR Doc. 2019–07347 Filed 4–12–19; 8:45 am]

BILLING CODE 6335–01–P

COMMISSION ON CIVIL RIGHTS

Sunshine Act Meeting Notice

AGENCY: U.S. Commission on Civil Rights.

ACTION: Announcement of Public Meeting of Oklahoma Advisory Committee.

SUMMARY: Notice is hereby given, pursuant to the provisions of the rules and regulations of the U.S. Commission on Civil Rights (Commission) and the Federal Advisory Committee Act that the Oklahoma Advisory Committee (Committee) will hold a meeting on Monday, April 29, 2019 at 12:00 p.m. Central Daylight Time (CDT). The Committee will discuss the implementation of their study of the impact of State Question 759, which prohibited preferential treatment or discrimination based on race, color, sex, ethnicity or national origin in public employment, education, and contracting.

DATES: Monday, April 29, 2019 at 12:00 p.m. CDT.

Public Call Information: Dial: 855–719–5012, Conference ID: 8369861.

FOR FURTHER INFORMATION CONTACT: Alejandro Ventura, DFO, *aventura@usccr.gov* or (213) 894–3437.

SUPPLEMENTARY INFORMATION: Members of the public may listen to this discussion through the above call in number. An open comment period will be provided to allow members of the public to make a statement as time allows. The conference call operator will ask callers to identify themselves, the organization they are affiliated with (if any), and an email address prior to placing callers into the conference room. Callers can expect to incur regular charges for calls they initiate over wireless lines, according to their wireless plan. The Commission will not refund any incurred charges. Callers will incur no charge for calls they initiate over land-line connections to the toll-free telephone number. Persons with hearing impairments may also follow the proceedings by first calling the Federal Relay Service at 1–800–877–8339 and providing the Service with the conference call number and conference ID number.

Members of the public are entitled to submit written comments; the comments must be received within 30 days following the meeting. Written comments may be mailed to: Regional Programs Unit, U.S. Commission on Civil Rights, 230 S Dearborn, Suite 2120, Chicago, IL 60604. They may also be faxed to (312) 353–8324, or emailed to *csanders@usccr.gov.* Persons who desire additional information may contact the Regional Programs Unit at (312) 353–8311.

Records generated from this meeting may be inspected and reproduced at the Regional Programs Unit Office, as they become available, both before and after the meeting. Records of the meeting will be available via *www.facadatabase.gov* under the Commission on Civil Rights, Oklahoma Advisory Committee link. Persons interested in the work of this Committee are directed to the Commission's website, *http://www.usccr.gov,* or may contact the Regional Programs Unit at the above addresses.

Agenda

I. Welcome and Roll Call
II. Approval of Minutes
III. Discussion on Implementing the Study of State Question 759
IV. Public Comments
V. Next Steps
VI. Adjournment

Dated: April 11, 2019.

Brian Walch,

Director, Communications and Public Engagement.

[FR Doc. 2019–07569 Filed 4–11–19; 4:15 pm]

BILLING CODE 6335–01–P

DEPARTMENT OF COMMERCE

Bureau of Industry and Security

Submission for OMB Review; Comment Request

The Department of Commerce will submit to the Office of Management and Budget (OMB) for clearance the following proposal for collection of information under the provisions of the Paperwork Reduction Act (44 U.S.C. Chapter 35).

Agency: Bureau of Industry and Security.

Title: Chemical Weapons Convention Declaration and Report Handbook and Forms

Form Number(s): Form 1–1, Form 1–2, Form 1–2A, Form 1–2B.

OMB Control Number: 0694–0091.

Type of Review: Regular submission.

Estimated Total Annual Burden Hours: 14,813.

Estimated Number of Respondents: 779.

Estimated Time per Response: 10 minutes to 12 hours.

Needs and Uses: The Chemical Weapons Convention Implementation Act of 1998 and Commerce Chemical Weapons Convention Regulations (CWCR) specify the rights, responsibilities and obligations for submission of declarations and reports and inspections of certain chemical facilities. This information is required for the United States to comply with the Chemical Weapons Convention (CWC), an international arms control treaty.

Affected Public: Business or other for-profit organizations.

Frequency: On Occasion

Respondent's Obligation: Mandatory

This information collection request may be viewed at *reginfo.gov*. Follow the instructions to view Department of Commerce collections currently under review by OMB.

Written comments and recommendations for the proposed information collection should be sent within 30 days of publication of this notice to *OIRA_Submission@omb.eop.gov.*

Sheleen Dumas,

Departmental Lead PRA Officer, Office of the Chief Information Officer, Commerce Department.

[FR Doc. 2019–07408 Filed 4–12–19; 8:45 am]

BILLING CODE 3510–33–P

DEPARTMENT OF COMMERCE

International Trade Administration

[A–570–912]

Certain New Pneumatic Off-the-Road Tires From the People's Republic of China: Notice of Correction to the Partial Rescission of the Antidumping Duty Administrative Review; 2017–2018

AGENCY: Enforcement and Compliance, International Trade Administration, Department of Commerce.

FOR FURTHER INFORMATION CONTACT: Keith Haynes, AD/CVD Operations, Office III, Enforcement and Compliance, International Trade Administration, U.S. Department of Commerce, 1401 Constitution Avenue NW, Washington, DC 20230; telephone: (202) 482–5139.

SUPPLEMENTARY INFORMATION:

Correction

On April 5, 2019, the Department of Commerce (Commerce) published the partial rescission of the 2017–2018 antidumping duty administrative review of certain new pneumatic off-the-road tires from the People's Republic of China (China).[1] In that notice, Commerce inadvertently misspelled the name of one of the respondents for which it intended to rescind the review, as Lianzhou Xiongying Industry Co., Ltd.[2] The correct spelling of the name of the respondent is Laizhou Xiongying Rubber Industry Co., Ltd. Additionally, Commerce stated that the review will continue with respect to Honghua Tyre, Zhongwei, and Super Grip.[3] However, Commerce clarifies that Super Grip is a U.S. importer that requested review of Zhongwei and is not under review in the underlying proceeding.[4]

This correction to the *Partial Rescission* is published in accordance with sections 751(a)(1) and 777(i)(1) of the Tariff Act of 1930, as amended.

Dated: April 9, 2019.

Gary Taverman,

Deputy Assistant Secretary for Antidumping and Countervailing Duty Operations, performing the non-exclusive functions and duties of the Assistant Secretary for Enforcement and Compliance.

[FR Doc. 2019–07427 Filed 4–12–19; 8:45 am]

BILLING CODE 3510–DS–P

[1] *See Certain New Pneumatic Off-the-Road Tires from the People's Republic of China: Notice of Partial Rescission of the Antidumping Duty Administrative Review; 2017–2018,* 84 FR 13633 (April 5, 2019) (*Partial Rescission*).

[2] *Id.* at 13634.

[3] *Id.*

[4] *Id.* at 13634 n.2; *see also Initiation of Antidumping and Countervailing Duty Administrative Reviews,* 83 FR 45888, 57414 (November 15, 2018) (identifying the companies for which Commerce initiated a review).

DEPARTMENT OF COMMERCE

International Trade Administration

[A–583–853]

Certain Crystalline Silicon Photovoltaic Products From Taiwan: Preliminary Results of Antidumping Duty Administrative Review and Preliminary Determination of No Shipments; 2017–2018

AGENCY: Enforcement and Compliance, International Trade Administration, Department of Commerce.

SUMMARY: The Department of Commerce (Commerce) preliminarily determines that producers and/or exporters subject to this administrative review made sales of subject merchandise at less than normal value (NV) during the period of review (POR), February 1, 2017, through January 31, 2018. Interested parties are invited to comment on these preliminary results of review.

DATES: Applicable April 15, 2019.

FOR FURTHER INFORMATION CONTACT: Thomas Martin or Maisha Cryor, AD/CVD Operations, Office IV, Enforcement and Compliance, International Trade Administration, Department of Commerce, 1401 Constitution Avenue NW, Washington, DC 20230; (202) 482–3936 or (202) 482–5831, respectively.

SUPPLEMENTARY INFORMATION:

Background

Commerce is conducting an administrative review of the antidumping duty (AD) order on certain crystalline silicon photovoltaic products (solar products) from Taiwan, in accordance with section 751(a) of the Tariff Act of 1930, as amended (the Act). On April 16, 2018, based on timely requests for review, Commerce published a notice initiating an AD administrative review of solar products from Taiwan covering 31 companies for the POR.[1] On October 16, 2018, Commerce partially extended the preliminary results of this administrative review by 90 days until January 29, 2019. However, Commerce exercised its discretion to toll all deadlines affected by the partial federal government closure from December 22, 2018, through the resumption of operations on January 28, 2019, resulting in a revised deadline of March 11, 2019.[2] On February 28, 2019, Commerce fully extended the preliminary results of this administrative review by an additional 30 days until April 9, 2019.[3] For a complete description of the events that followed the initiation of this review, *see* the Preliminary Decision Memorandum.

Export price is calculated in accordance with section 772 of the Act. NV is calculated in accordance with section 773 of the Act. For a full description of the methodology underlying our conclusions, *see* the Preliminary Decision Memorandum. A list of topics included in the Preliminary Decision Memorandum is included as an Appendix to this notice. The Preliminary Decision Memorandum is a public document and is on file electronically via Enforcement and Compliance's Antidumping and Countervailing Duty Centralized Electronic Service System (ACCESS).

[1] *See Initiation of Antidumping and Countervailing Duty Administrative Reviews,* 83 FR 16298 (April 16, 2018) (*Initiation Notice*).

[2] *See* Memorandum, ''Deadlines Affected by the Partial Shutdown of the Federal Government,'' dated January 28, 2019. All deadlines in this segment of the proceeding have been extended by 40 days.

[3] *See* Memorandum, ''Certain Crystalline Silicon Photovoltaic Products from Taiwan: Extension of Deadline for Preliminary Results of Antidumping Duty Administrative Review,'' dated February 28, 2019.

ACCESS is available to registered users at *http://access.trade.gov* and in the Central Records Unit, Room B8024 of the main Commerce building. In addition, a complete version of the Preliminary Decision Memorandum can be accessed directly at *http://enforcement.trade.gov/frn/.* The signed Preliminary Decision Memorandum and the electronic version of the Preliminary Decision Memorandum are identical in content.

Scope of the Order

The merchandise covered by this order is crystalline silicon photovoltaic cells, and modules, laminates and/or panels consisting of crystalline silicon photovoltaic cells, whether or not partially or fully assembled into other products, including building integrated materials.[4] Merchandise covered by this order is currently classified in the Harmonized Tariff Schedule of the United States (HTSUS) under subheadings 8501.61.0000, 8507.20.8030, 8507.20.8040, 8507.20.8060, 8507.20.8090, 8541.40.6020, 8541.40.6030 and 8501.31.8000. These HTSUS subheadings are provided for convenience and customs purposes; the written description of the scope is dispositive.

Preliminary Determination of No Shipments

Thirteen of the companies under review properly filed a statement that they made no shipments of subject merchandise to the United States during the POR.[5] Based on their certification and our analysis of U.S. Customs and Border Protection (CBP) information, we preliminarily determine that these thirteen companies had no reviewable transactions during the POR. Consistent with our practice, we are not preliminarily rescinding the review with respect to these thirteen companies, but, rather, we will complete the review for these companies and issue appropriate instructions to CBP based on the final results of this review.[6] For additional information regarding this determination, *see* the Preliminary Decision Memorandum.

Preliminary Results of the Review

As a result of this review, we calculated a weighted-average dumping margin of 7.77 percent for Motech and 1.00 percent for SAS–SEC[7] for the period February 1, 2017, through January 31, 2018. We assigned 4.39 percent, the weighted-average of the weighted-average dumping margins of the mandatory respondents using public-ranged sales values, to the sixteen non-selected companies in these preliminary results, as referenced below.[8]

Manufacturer/exporter	Weighted-average margin (percent)
Motech Industries, Inc	7.77
Sino-American Silicon Products Inc., Solartech Energy Corp. and Sunshine PV Corporation[9]	1.00
Boviet Solar Technology Co., Ltd	4.39
Canadian Solar Inc	4.39
Canadian Solar International, Ltd	4.39
Canadian Solar Manufacturing (Changshu), Inc	4.39
Canadian Solar Manufacturing (Luoyang), Inc	4.39
Canadian Solar Solutions Inc	4.39
EEPV CORP	4.39
E–TON Solar Tech. Co., Ltd	4.39
Gintech Energy Corporation	4.39
Inventec Solar Energy Corporation	4.39
Kyocera Mexicana S.A. de C.V	4.39
Lof Solar Corp	4.39
Sunengine Corporation Ltd	4.39
Sunrise Global Solar Energy	4.39
TSEC Corporation	4.39
Win Win Precision Technology Co., Ltd	4.39

[4] For a complete description of the scope of the products under review, *see* Memorandum ''Decision Memorandum for Preliminary Results of the 2017–2018 Antidumping Duty Administrative Review of Certain Crystalline Silicon Photovoltaic Products from Taiwan,'' dated concurrently with, and hereby adopted by this notice (Preliminary Decision Memorandum).

[5] *See* certifications of no shipments filed by AU Optronics Corporation and Inventec Energy Corporation, dated May 7, 2018, and certifications of no shipments filed by Vina Solar Technology Co., Ltd, Baoding Jiasheng Photovoltaic Technology Co., Ltd., Baoding Tianwei Yingli New Energy Resources Co., Ltd., Beijing Tianneng Yingli New Energy Resources Co., Ltd., Hainan Yingli New Energy Resources Co., Ltd., Hengshui Yingli New Energy Resources Co., Ltd., Lixian Yingli New Energy Resources Co., Ltd., Shenzhen Yingli New Energy Resources Co., Ltd., Tianjin Yingli New Energy Resources Co., Ltd., Yingli Energy (China) Co., Ltd., and Yingli Green Energy International Trading Company Limited, dated May 16, 2018.

[6] *See Non-Market Economy Antidumping Proceedings: Assessment of Antidumping Duties,* 76 FR 65694, 65694–95 (October 24, 2011) and the ''Assessment Rates'' section, below. *See also Certain Frozen Warmwater Shrimp from Thailand; Preliminary Results of Antidumping Duty Administrative Review, Partial Rescission of Review, Preliminary Determination of No Shipments; 2012–2013,* 79 FR 15951, 15952 (March 24, 2014), unchanged in *Certain Frozen Warmwater Shrimp from Thailand: Final Results of Antidumping Duty Administrative Review, Final Determination of No Shipments, and Partial Rescission of Review; 2012–2013,* 79 FR 51306, 51307 (August 28, 2014).

[7] Commerce has preliminarily determined to collapse, and treat as a single entity, affiliates Sino-American Silicon Products Inc., Solartech Energy Corp. and Sunshine PV Corporation. For our analysis of the collapsing criteria, *see* Memorandum, ''Whether to Collapse the Sino-American Silicon Products Inc. and Solartech Energy Corporation entity with Sunshine PV Corporation in the 2017–2018 Antidumping Duty Administrative Review of Certain Crystalline Silicon Photovoltaic Products from Taiwan, dated April 9, 2019,'' dated concurrently with this notice.

[8] *See* Preliminary Decision Memorandum at 5. This rate is based on the weighted-average of the margins calculated for those companies selected for individual review using the publicly-ranged U.S. quantities. Because we cannot apply our normal methodology of calculating a weighted-average margin due to requests to protect business proprietary information, we find this rate to be the best proxy of the actual weighted-average margin determined for the mandatory respondents. *See Ball Bearings and Parts Thereof from France, et al.: Final Results of Antidumping Duty Administrative Reviews, Final Results of Changed-Circumstances Review, and Revocation of an Order in Part,* 75 FR 53661, 53663 (September 1, 2010); see also Memorandum, ''Calculation of the Review-Specific Average Rate for the Preliminary Results,'' dated concurrently with this notice.

[9] In the 2014–2016 administrative review of the order, Commerce collapsed Sino-American Silicon Products Inc. and Solartech Energy Corp., and treated the companies as a single entity for purposes of the proceeding. *See Certain Crystalline Silicon Photovoltaic Products from Taiwan: Final Results of Antidumping Duty Administrative Review;* 2014–2016, 82 FR 31555 (July 7, 2017). Because there were no changes to the facts which supported that decision since that determination was made, we continue to find that these companies are part of a single entity for this administrative review. Additionally, we have preliminarily determined to collapse Sino-American Silicon Products Inc. and Solartech Energy Corp. with Sunshine PV Corporation.

Assessment Rates

Upon completion of the administrative review, Commerce shall determine, and CBP shall assess, antidumping duties on all appropriate entries covered by this review. Commerce intends to issue assessment instructions to CBP 15 days after the date of publication of the final results of this review.

For any individually examined respondents whose weighted-average dumping margin is above *de minimis* (*i.e.,* 0.50 percent), we will calculate importer-specific *ad valorem* duty assessment rates based on the ratio of the total amount of dumping calculated for the importer's examined sales to the total entered value of those same sales in accordance with 19 CFR 351.212(b)(1).[10] For entries of subject merchandise during the POR produced by each respondent for which it did not know its merchandise was destined for the United States, we will instruct CBP to liquidate un-reviewed entries at the all-others rate if there is no rate for the intermediate company involved in the transaction.[11] We will instruct CBP to assess antidumping duties on all appropriate entries covered by this review when the importer-specific assessment rate calculated in the final results of this review is above *de minimis.* Where either the respondent's weighted-average dumping margin is zero or *de minimis,* or an importer-specific assessment rate is zero or *de minimis,* we will instruct CBP to liquidate the appropriate entries without regard to antidumping duties.

The final results of this review shall be the basis for the assessment of antidumping duties on entries of merchandise covered by the final results of this review and for future deposits of estimated duties, where applicable.

Cash Deposit Requirements

The following deposit requirements will be effective upon publication of the notice of final results of administrative review for all shipments of solar products from Taiwan entered, or withdrawn from warehouse, for consumption on or after the date of publication of the final results of this administrative review, as provided for by section 751(a)(2)(C) of the Act: (1) The cash deposit rate for the companies under review will be the rate established in the final results of this review (except, if the rate is zero or *de minimis,* no cash deposit will be required); (2) for merchandise exported by manufacturers or exporters not covered in this review but covered in a prior segment of the proceeding, the cash deposit rate will continue to be the company-specific rate published for the most recently completed segment of this proceeding in which the manufacturer or exporter participated; (3) if the exporter is not a firm covered in this review, a prior review, or the less-than-fair-value investigation, but the manufacturer is, the cash deposit rate will be the rate established for the most recently completed segment of the proceeding for the manufacturer of the merchandise; and (4) the cash deposit rate for all other manufacturers or exporters will continue to be 19.50 percent *ad valorem,* the all-others rate established in the less-than-fair-value investigation.[12] These cash deposit requirements, when imposed, shall remain in effect until further notice.

Disclosure and Public Comment

Commerce intends to disclose the calculations used in our analysis to interested parties in this review within five days of the date of publication of this notice in accordance with 19 CFR 351.224(b). Interested parties are invited to comment on the preliminary results of this review. Pursuant to 19 CFR 351.309(c)(1)(ii), interested parties may submit case briefs no later than 30 days after the date of publication of this notice. Rebuttal briefs, limited to issues raised in the case briefs, may be filed no later than five days after the time limit for filing case briefs.[13] Parties who submit case briefs or rebuttal briefs in this proceeding are requested to submit with each brief: (1) A statement of the issue, (2) a brief summary of the argument, and (3) a table of authorities.[14] Executive summaries should be limited to five pages total, including footnotes.[15] Case and rebuttal briefs should be filed using ACCESS.[16]

Pursuant to 19 CFR 351.310(c), any interested party may request a hearing within 30 days of the publication of this notice in the **Federal Register**. If a hearing is requested, Commerce will notify interested parties of the hearing schedule. Interested parties who wish to request a hearing, or to participate if one is requested, must submit a written request to the Assistant Secretary for Enforcement and Compliance, filed electronically *via* ACCESS within 30 days after the date of publication of this notice. Requests should contain: (1) The party's name, address, and telephone number; (2) the number of participants; and (3) a list of the issues to be discussed. Issues raised in the hearing will be limited to those raised in the respective case and rebuttal briefs. If a request for a hearing is made, parties will be notified of the time and date for the hearing to be held at the U.S. Department of Commerce, 1401 Constitution Avenue NW, Washington, DC 20230.

We intend to issue the final results of this administrative review, including the results of our analysis of issues raised by the parties in the written comments, within 120 days of publication of these preliminary results in the **Federal Register**, unless otherwise extended.[17]

Notification to Importers

This notice also serves as a preliminary reminder to importers of their responsibility under 19 CFR 351.402(f) to file a certificate regarding the reimbursement of antidumping duties prior to liquidation of the relevant entries during this review period. Failure to comply with this requirement could result in Commerce's presumption that reimbursement of antidumping duties occurred and the subsequent assessment of double antidumping duties.

These preliminary results of administrative review are issued and published in accordance with sections 751(a)(1) and 777(i)(1) of the Act.

[10] In these preliminary results, Commerce applied the assessment rate calculation methodology adopted in *Antidumping Proceedings: Calculation of the Weighted-Average Dumping Margin and Assessment Rate in Certain Antidumping Proceedings: Final Modification,* 77 FR 8101 (February 14, 2012).

[11] *See Antidumping and Countervailing Duty Proceedings: Assessment of Antidumping Duties,* 68 FR 23954 (May 6, 2003).

[12] *See Certain Crystalline Silicon Photovoltaic Products: Final Determination of Sales at Less Than Fair Value,* 79 FR 76966 (December 23, 2014).

[13] *See* 19 CFR 351.309(d)(1).

[14] *See* 19 CFR 351.309(c)(2) and (d)(2).

[15] *Id.*

[16] *See* 19 CFR 351.303.

[17] *See* section 751(a)(3)(A) of the Act.

Dated: April 8, 2019.

Gary Taverman,

Deputy Assistance Secretary for Antidumping and Countervailing Duty Operations, performing the non-exclusive functions and duties of the Assistant Secretary for Enforcement and Compliance.

Appendix

List of Topics Discussed in the Preliminary Decision Memorandum

I. Summary
II. Background
III. Scope of the Order
IV. Affiliation and Collapsing
V. Companies Not Selected for Individual Examination
VI. Preliminary Determination of No Shipments
VII. Discussion of the Methodology
VIII. Recommendation

[FR Doc. 2019–07428 Filed 4–12–19; 8:45 am]

BILLING CODE 3510–DS–P

DEPARTMENT OF COMMERCE

International Trade Administration

[C–580–837]

Certain Cut-to-Length Carbon-Quality Steel Plate From the Republic of Korea: Preliminary Results of Countervailing Duty Administrative Review; and Rescission of Review, in Part; Calendar Year 2017

AGENCY: Enforcement and Compliance, International Trade Administration, Department of Commerce.

SUMMARY: The Department of Commerce (Commerce) preliminarily determines that countervailable subsidies are being provided to certain exporters/producers of certain cut-to-length plate from the Republic of Korea at *de minimis* levels during the period of review (POR) January 1, 2017, through December 31, 2017. Interested parties are invited to comment on these preliminary results.

DATES: Applicable April 15, 2019.

FOR FURTHER INFORMATION CONTACT: John Conniff or Jolanta Lawska, AD/CVD Operations, Office III, Enforcement and Compliance, International Trade Administration, U.S. Department of Commerce, 1401 Constitution Avenue NW, Washington, DC 20230; telephone (202) 482–1009 and (202) 482–8362, respectively.

SUPPLEMENTARY INFORMATION:

Background

On April 16, 2018, Commerce published a notice of initiation of an administrative review [1] of the countervailing duty order on certain cut-to-length carbon quality steel plate from the Republic of Korea (Korea).[2] On September 26, 2018, Commerce extended the due date of the preliminary results of this administrative review until February 28, 2019.[3] On January 28, 2019, Commerce exercised its discretion to toll all deadlines affected by the partial federal government closure from December 22, 2018, through the resumption of operations on January 29, 2019.[4] If the new deadline falls on a non-business day, in accordance with Commerce's practice, the deadline will become the next business day. As a result, the revised deadline for the preliminary results in this review is now April 9, 2019.

For a complete description of the events that followed the initiation of this review, *see* the Preliminary Decision Memorandum.[5] A list of topics discussed in the Preliminary Decision Memorandum is included at the Appendix to this notice. The Preliminary Decision Memorandum is a public document and is on file electronically via Enforcement and Compliance's Antidumping and Countervailing Duty Centralized Electronic Service System (ACCESS). ACCESS is available to registered users at *https://access.trade.gov* and is available to all parties in the Central Records Unit, Room B8024 of the main Department of Commerce building. In addition, a complete version of the Preliminary Decision Memorandum can be accessed directly at *http://enforcement.trade.gov/frn/.* The signed and electronic versions of the Preliminary Decision Memorandum are identical in content.

Scope of the Order

The merchandise covered by the *Order* is certain cut-to-length carbon-quality steel plate from Korea. For a complete description of the scope of the order, *see* the Preliminary Decision Memorandum.

Methodology

Commerce is conducting this review in accordance with section 751(a)(1)(A) of the Tariff Act of 1930, as amended (the Act). For each of the subsidy programs found countervailable, we preliminarily determine that there is a subsidy, *i.e.,* a financial contribution by an ''authority'' that confers a benefit to the recipient, and that the subsidy is specific.[6] For a full description of the methodology underlying our conclusions, *see* the accompanying Preliminary Decision Memorandum.

Preliminary Results of the Review

In accordance with 19 CFR 351.221(b)(6)(i), we calculated individual subsidy rates for DSM and Hyundai Steel. For the period January 1, 2017, through December 31, 2017, we preliminarily determine that the following net subsidy rates for the producers/exporters under review to be as follows:

Company	Subsidy rate *ad valorem*
Dongkuk Steel Mill Co., Ltd.	0.25 percent (*de minimis*).
Hyundai Steel Company	0.44 percent (*de minimis*).

Assessment Rates

Consistent with section 751(a)(2)(C) of the Act, upon issuance of the final results, Commerce shall determine, and Customs and Border Protection (CBP) shall assess, countervailing duties on all appropriate entries covered by this review. We intend to issue instructions to CBP 15 days after publication of the final results of this review. Commerce intends to issue appropriate assessment instructions directly to CBP 15 days after publication of this notice.

Cash Deposit Requirements

Pursuant to section 751(a)(2)(C) of the Act, Commerce also intends to instruct CBP to collect cash deposits of estimated countervailing duties for each of the companies listed above on shipments of subject merchandise entered, or withdrawn from warehouse, for consumption on or after the date of publication of the final results of this

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[1] *See Initiation of Antidumping and Countervailing Duty Administrative Reviews,* 83 FR 16298 (April 16, 2018) (*Initiation*).

[2] *See Notice of Amended Final Determinations: Certain Cut-to-Length Carbon-Quality Steel Plate from India and the Republic of Korea; and Notice of Countervailing Duty Orders: Certain Cut-To-Length Carbon-Quality Steel Plate from France, India, Indonesia, Italy, and the Republic of Korea,* 65 FR 6587 (February 10, 2000) (*Order*).

[3] *See* Memorandum, ''Cut-to-Length Carbon Quality Steel Plate from the Republic of Korea: Extension of Deadline for Preliminary Results of Countervailing Duty Administrative Review,'' dated September 26, 2018.

[4] *See* Memorandum, ''Deadlines Affected by the Partial Shutdown of the Federal Government,'' dated January 28, 2019. All deadlines in this segment of the proceeding have been extended by 40 days.

[5] *See* Memorandum, ''Decision Memorandum for the Preliminary Results of the Countervailing Duty Administrative Review, 2017: Certain Cut-to-Length Carbon-Quality Steel Plate from the Republic of Korea,'' dated concurrently with, and hereby adopted by, this notice (Preliminary Decision Memorandum).

[6] *See* sections 771(5)(B) and (D) of the Act regarding financial contribution; section 771(5)(E) of the Act regarding benefit; and section 771(5A) of the Act regarding specificity.

administrative review, except, where the rate calculated in the final results is zero or *de minimis,* no cash deposit will be required. For all non-reviewed firms, we will instruct CBP to continue to collect cash deposits of estimated countervailing duties at the most recent company-specific or all-others rate applicable to the company, as appropriate. These cash deposit requirements, when imposed, shall remain in effect until further notice.

Disclosure and Public Comment

We will disclose to parties to this proceeding the calculations performed in reaching the preliminary results within five days of the date of publication of these preliminary results.[7] Interested parties may submit written arguments (case briefs) within 30 days of publication of the preliminary results and rebuttal comments (rebuttal briefs) within five days after the time limit for filing the case briefs.[8] Pursuant to 19 CFR 351.309(d)(2), rebuttal briefs may respond only to issues raised in the case briefs. Parties who submit arguments are requested to submit with the argument: (1) Statement of the issue; (2) a brief summary of the argument; and (3) a table of authorities.[9]

Interested parties who wish to request a hearing must submit a written request to the Assistant Secretary for Enforcement and Compliance, U.S. Department of Commerce, within 30 days after the date of publication of this notice.[10] Requests should contain the party's name, address, and telephone number, the number of participants, and a list of the issues to be discussed. If a request for a hearing is made, we will inform parties of the scheduled date for the hearing, which will be held at the U.S. Department of Commerce, 1401 Constitution Avenue NW, Washington, DC 20230, at a time and location to be determined.[11] Issues addressed during the hearing will be limited to those raised in the briefs.[12] Parties should confirm by telephone the date, time, and location of the hearing two days before the scheduled date.

Parties are reminded that briefs and hearing requests are to be filed electronically using ACCESS and that electronically filed documents must be received successfully in their entirety by 5:00PM Eastern Time on the due date.

Unless the deadline is extended pursuant to section 751(a)(3)(A) of the Act, Commerce will issue the final results of this administrative review, including the results of our analysis of the issues raised by parties in their comments, within 120 days after issuance of these preliminary results.

This administrative review and notice are issued and published in accordance with sections 751(a)(1) and 777(i)(1) of the Act and 19 CFR 351.213.

Dated: April 8, 2019.

Gary Taverman,

Deputy Assistant Secretary for Antidumping and Countervailing Duty Operations, performing the non-exclusive functions and duties of the Assistant Secretary for Enforcement and Compliance.

Appendix

List of Topics Discussed in the Preliminary Decision Memorandum

I. Summary
II. Background
III. Period of Review
IV. Scope of the Order
V. Subsidies Valuation Information
  A. Allocation Period
  B. Attribution of Subsidies
  C. Benchmarks for Long-Term Loans and Discount Rates
  D. Denominators
VI. Analysis of Programs
  A. Programs Preliminarily Determined to be Countervailable
  B. Programs Preliminarily Determined Not to Confer a Measurable Benefit
  C. Other Programs
  D. Programs Preliminarily Determined to Not be Not Used
VII. Recommendation

[FR Doc. 2019–07429 Filed 4–12–19; 8:45 am]

BILLING CODE 3510–DS–P

[7] *See* 19 CFR 351.224(b).
[8] *See* 19 CFR 351.309(c)(1)(ii); 351.309(d)(1).
[9] *See* 19 CFR 351.309(c)(2) and 351.309(d)(2).
[10] *See* 19 CFR 351.310(c).
[11] *See* 19 CFR 351.310.
[12] *See* 19 CFR 351.310(c).

DEPARTMENT OF COMMERCE

National Institute of Standards and Technology

Submission for OMB Review; Comment Request

The Department of Commerce will submit to the Office of Management and Budget (OMB) for clearance the following proposal for collection of information under the provisions of the Paperwork Reduction Act (44 U.S.C. Chapter 35).

Agency: National Institute of Standards and Technology (NIST).

Title: SURF Fellow Housing Application.

OMB Control Number: New collection. 0693–XXXX.

Form Number(s): None.

Type of Request: Regular submission (new information collection).

Number of Respondents: 220.

Average Hours per Response: 30 minutes.

Burden Hours: 110 hours.

Needs and Uses: The purpose of this collection is to gather information requested on behalf of the NIST Summer Undergraduate Research Fellowship (SURF) Program for both Gaithersburg and Boulder locations. Students participating in the program receive a fellowship which includes lodging arranged by the agency. To coordinate the lodging, information is submitted by accepted students which require lodging during the program dates. The student information is utilized for roommate matching based on gender and common interests. The information includes: Identification of accepted laboratory, housing requirement (yes or no), first name, last name, dates requesting housing, gender, roommate identification, name of academic institution of enrollment, preferences (night owl, early bird, neatness, smoking,), and special requests.

Affected Public: Students.

Frequency: Annually.

Respondent's Obligation: Required to Obtain or Retain Benefits.

This information collection request may be viewed at *reginfo.gov*. Follow the instructions to view Department of Commerce collections currently under review by OMB.

Written comments and recommendations for the proposed information collection should be sent within 30 days of publication of this notice to *OIRA_Submission@omb.eop.gov* or fax to (202) 395–5806.

Sheleen Dumas,

Departmental Lead PRA Officer, Office of the Chief Information Officer, Commerce Department.

[FR Doc. 2019–07407 Filed 4–12–19; 8:45 am]

BILLING CODE 3510–13–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN 0648–XG965

Pacific Fishery Management Council; Public Meeting

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of public meetings.

SUMMARY: The Pacific Fishery Management Council (Pacific Council) will convene four Stock Assessment Review (STAR) Panels this year to

review new stock assessments for cabezon, big skate, longnose skate, sablefish, cowcod, and gopher/black-and-yellow rockfish (it is anticipated this will be a single assessment of gopher rockfish and black-and-yellow rockfish in combination). These STAR Panel meetings are open to the public. The STAR Panel meetings will also be streamed online in ''listen-only'' mode for those who want to follow the proceedings remotely.

DATES: The STAR Panel meeting (STAR Panel 1) to review new assessments for cabezon will be held Monday, May 6, 2019 through Friday, May 10, 2019, beginning at 8:30 a.m. Pacific Daylight Time (PDT) and ending at 5:30 p.m. each day, or when business for the day has been completed.

The STAR Panel meeting (STAR Panel 2) to review new assessments for big skate and longnose skate will be held Monday, June 3, 2019 through Friday, June 7, 2019, beginning at 8:30 a.m. and ending at 5:30 p.m. each day, or when business for the day has been completed.

The STAR Panel meeting (STAR Panel 3) to review a new assessment for sablefish will be held Monday, July 8, 2019 through Friday, July 12, 2019, beginning at 8:30 a.m. and ending at 5:30 p.m. each day, or when business for the day has been completed.

The STAR Panel meeting (STAR Panel 4) to review new assessments for cowcod and gopher/black-and-yellow rockfish will be held Monday, July 22, 2019 through Friday, July 26, 2019, beginning at 8:30 a.m. and ending at 5:30 p.m. each day, or when business for the day has been completed.

ADDRESSES: The STAR Panel for cabezon (STAR Panel 1) will be held at the National Marine Fisheries Service, Northwest Fisheries Science Center, Newport Research Station, 2032 SE OSU Drive, Building 955, Newport, OR 97365; telephone: (541) 867–0500.

The STAR Panel for big skate and longnose skate (STAR Panel 2) will be held in the Auditorium at the National Marine Fisheries Service, Northwest Fisheries Science Center, 2725 Montlake Boulevard E, Seattle, WA 98112; telephone: (206) 860–3200 on Monday, June 3 through Wednesday, June 5. The STAR Panel will meet in the Fireside Lounge Room at the Seattle Yacht Club, 1807 E Hamlin St., Seattle, WA 98112; telephone: (206) 325–1000 on Thursday, June 6. The STAR Panel will reconvene on Friday, June 7 in the Auditorium at the National Marine Fisheries Service, Northwest Fisheries Science Center.

The STAR Panel for sablefish (STAR Panel 3) will be held in the Auditorium at the National Marine Fisheries Service, Northwest Fisheries Science Center, 2725 Montlake Boulevard E, Seattle, WA 98112; telephone: (206) 860–3200.

The STAR Panel for cowcod and gopher/black-and-yellow rockfish (STAR Panel 4) will be held at the National Marine Fisheries Service, Southwest Fisheries Science Center, Santa Cruz Laboratory, 110 McAllister Way, Santa Cruz, CA 95060; telephone: (831) 420–3900.

To attend the webinar for STAR Panel 1, visit: *https://nwfscfram.webex.com/nwfscfram.* Enter the Webinar Access Code, which is 628–714–189, and your name and email address (required). After logging into the webinar, dial the TOLL number (not a toll-free number) 1–650–479–3208; you must use your telephone for the audio portion of the meeting.

Note: We have disabled Mic/Speakers as an option and require all participants to use a telephone or cell phone to participate.

To attend the webinar for STAR Panel 2, visit: *https://nwfscfram.webex.com/nwfscfram.* Enter the Webinar Access Code, which is 626–965–054, and your name and email address (required). After logging into the webinar, dial the TOLL number (not a toll-free number) 1–650–479–3208; you must use your telephone for the audio portion of the meeting.

Note: We have disabled Mic/Speakers as an option and require all participants to use a telephone or cell phone to participate.

To attend the webinar for STAR Panel 3, visit: *https://nwfscfram.webex.com/nwfscfram.* Enter the Webinar Access Code, which is 623–016–027, and your name and email address (required). After logging into the webinar, dial the TOLL number (not a toll-free number) 1–650–479–3208; you must use your telephone for the audio portion of the meeting.

Note: We have disabled Mic/Speakers as an option and require all participants to use a telephone or cell phone to participate.

To attend the webinar for STAR Panel 4, visit: *https://swfsc.webex.com/swfsc.* Enter the Webinar Access Code, which is 991–779–038, and your name and email address (required) and the meeting password, which is vp6bswqr. After logging into the webinar, dial the TOLL number (not a toll-free number) 1–415–655–0002; you must use your telephone for the audio portion of the meeting.

Note: We have disabled Mic/Speakers as an option and require all participants to use a telephone or cell phone to participate.

Council address: Pacific Fishery Management Council, 7700 NE Ambassador Place, Suite 101, Portland, OR 97220.

FOR FURTHER INFORMATION CONTACT: Ms. Stacey Miller, NMFS Northwest Fisheries Science Center; telephone: (541) 867–0535; or Mr. John DeVore, Staff Officer, Pacific Fishery Management Council; telephone: (503) 820–2413.

SUPPLEMENTARY INFORMATION: The purpose of the STAR Panels is to review draft 2019 stock assessment documents and any other pertinent information for new benchmark stock assessments for cabezon, big skate, longnose skate, sablefish, cowcod, and gopher/black-and-yellow rockfish; work with the Stock Assessment Teams to make necessary revisions; and produce STAR Panel reports for use by the Pacific Council family and other interested persons for developing management recommendations for fisheries in 2021 and beyond. No management actions will be decided by the STAR Panels. The STAR Panel participants' role will be development of recommendations and reports for consideration by the Pacific Council at its September meeting in Boise, ID.

Although nonemergency issues not contained in the meeting agendas may be discussed, those issues may not be the subject of formal action during these meetings. Action will be restricted to those issues specifically listed in this notice and any issues arising after publication of this notice that require emergency action under Section 305(c) of the Magnuson-Stevens Fishery Conservation and Management Act, provided the public has been notified of the intent of the STAR Panels to take final action to address the emergency.

Visitors who are foreign nationals (defined as a person who is not a citizen or national of the United States) will require additional security clearance to access the NMFS Northwest and Southwest Fisheries Science Centers. Foreign national visitors should contact Ms. Stacey Miller at (541) 867–0535 at least 2 weeks prior to the meeting date to initiate the security clearance process.

Special Accommodations

These meetings are physically accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aids should be directed to Mr. Kris Kleinschmidt, (503) 820–2280, at least 10 days prior to the meeting date.

Dated: April 10, 2019.

Rey Israel Marquez,

Acting Deputy Director, Office of Sustainable Fisheries, National Marine Fisheries Service.

[FR Doc. 2019–07448 Filed 4–12–19; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN 0648–XG968

Western Pacific Fishery Management Council; Public Meetings

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of public meetings.

SUMMARY: The Western Pacific Fishery Management Council (Council) will hold meetings of its Protected Species Advisory Committee (PSAC), Archipelagic Fishery Ecosystem Plan (FEP) Team (APT), Pelagics FEP Plan Team (PPT), and the Fishery Data Collection and Research Committee—Data Technical Sub-Committee (FDCRC–DTC) to discuss fishery issues and develop recommendations for future management of archipelagic, pelagic and protected species.

DATES: The PSAC meeting will be held between 9 a.m. and 5 p.m. on May 1 and May 2, 2019. The APT meeting will be held between 8:30 a.m. and 5 p.m. on May 6 and May 7, 2019. The FDCRC–DTC meeting will be held between 8:30 a.m. and 5 p.m. on May 8, 2019. The PPT meeting will be held between 8:30 a.m. and 5 p.m. on May 9 and May 10, 2019. For specific times and agendas, see **SUPPLEMENTARY INFORMATION**.

ADDRESSES: The meetings will be held at the Western Pacific Regional Fishery Management Council Conference Room, 1164 Bishop St., Suite 1400, Honolulu, HI 96813; telephone: (808) 522–8220; fax: (808) 522–8226; online at *wpcouncil.org.*

FOR FURTHER INFORMATION CONTACT: Kitty M. Simonds, Executive Director, Western Pacific Regional Fishery Management Council, telephone: (808) 522–8220; fax: (808) 522–8226.

SUPPLEMENTARY INFORMATION: Public comment periods will be provided throughout the agendas. The order in which agenda items are addressed may change. The meetings will run as late as necessary to complete scheduled business.

Agenda for the PSAC Meeting

Wednesday, May 1, 2019, 9 a.m. to 5 p.m.

1. Welcome and Introductions
2. Approval of Agenda
3. Status of the Fifth and Sixth PSAC Meeting Recommendations
4. Endangered Species Act (ESA) and Marine Mammal Protection Act (MMPA) Updates
5. Pelagic Longline Fisheries Issues
   - A. Review of the Draft 2018 FEP Annual Stock Assessment and Fishery Evaluation (SAFE) Report
     - i. Summary of Relevant Fishery Data: 2018 Hawaii and American Samoa Logbook Reports
     - ii. 2018 Protected Species Section
     - iii. Standardized Metric for Protected Species Interactions
     - iv. Discussion and Synthesis
   - B. Council Fishery Actions on Pelagic Longline Fisheries
     - i. Framework for Managing Sea Turtle Interactions in the Hawaii Shallow-Set Longline Fishery
     - ii. Seabird Bycatch Mitigation Measures in the Hawaii Longline Fishery
     - a. 2018 Albatross Workshop Report
     - b. Strategies for Improving Seabird Mitigation Measures
     - iii. Other Pelagic Actions
   - C. Outcomes for the Olive Ridley Turtle Project and Next Steps for the Ecosystem-Based Fishery Management Turtle Project
   - D. Discussion on Emerging Issues, Data Gaps, and Research Needs
6. Pelagic Non-Longline Fisheries Issues
   - A. Review of the Draft 2018 FEP Annual SAFE Report for Pelagic Non-Longline Fisheries
     - i. Summary of Relevant Fishery Data
     - ii. Protected Species
   - B. Discussion on Emerging Issues, Data Gaps, and Research Needs
7. Public Comment

Thursday, May 2, 2019, 9 a.m. to 5 p.m.

8. Insular Fisheries Issues
   - A. Review of the Draft 2018 FEP Annual SAFE Report for Insular Fisheries
     - i. Summary of Relevant Fishery Data
     - ii. Protected Species
     - iii. Discussion and Synthesis
   - B. Council Fishery Actions on Insular Fisheries
   - C. French Frigate Shoals Green Turtle Research Plans
   - D. Discussion on Emerging Issues, Data Gaps, and Research Needs
9. Council's Research Priorities
   - A. Five-year Research Priorities
   - B. Cooperative Research Priorities
   - C. Discussion
10. Public Comment
11. Committee Discussion and Recommendations
12. Other Business and Next Meeting

Agenda for Archipelagic FEP Team Meeting

Monday, May 6, 2019, 8:30 a.m. to 5 p.m.

1. Welcome and Introductions
2. Approval of Draft Agenda, 2018 Report, and Assignment of Rapporteurs
3. Report on Previous Plan Team recommendations and Council Actions
4. 2018 Archipelagic Annual SAFE Report
   - A. Fishery Performance
     - 1. Archipelagic Fisheries Modules
     - a. American Samoa
       - 1. Bottomfish Fishery
       - 2. Ecosystem Component Fisheries
     - b. Guam
       - 1. Bottomfish Fishery
       - 2. Ecosystem Component Fisheries
     - c. Commonwealth of the Northern Mariana Islands
       - 1. Bottomfish Fishery
       - 2. Ecosystem Component Fisheries
     - d. Hawaii
       - 1. Bottomfish Fishery
       - 2. Crustacean Fishery
       - 3. Precious Coral Fishery
       - 4. Ecosystem Component Fisheries
       - 5. Non-Commercial Fisheries
     - 2. Discussions
     - 3. Public Comment
   - B. Ecosystem Considerations
     - 1. Protected Species Section
     - 2. Climate, Ecosystems, and Biological Section
       - a. Environmental and Climate Variables
       - b. Life History and Length-Derived Variables
       - c. Biomass estimates for Coral Reef Ecosystem Components
     - 3. Habitat Section
     - 4. Socioeconomics Section
     - 5. Marine Planning Section
     - 6. Discussions
     - 7. Public Comment
   - C. Administrative Reports
     - 1. Number of Federal Permits
     - 2. Regulatory Actions in 2018
     - 3. Discussions
     - 4. Public Comment
   - D. Data Integration Section
     - 1. Draft Data Integration Chapter
     - 2. The Impact of Climate Change and Variability on Octopus Gleaning in American Samoa
     - 3. Public Comment

Tuesday, May 7, 2019, 8:30 a.m. to 5 p.m.

5. Ecosystem Components and Changes to the Annual SAFE Report

6. Finalizing Species Table for the Annual SAFE Report
7. Calculations of Effort and Participation in the Annual SAFE Report
8. Machine Learning Software to Support Fishery Data Collection
9. Habitat Indicators for Coral Reef Ecosystem Components
10. Western Pacific Insular Fisheries Monitoring Workshop
11. Action Agenda Items
   A. Evaluation of 2018 Catch to Council Recommended ACLs
   B. Precious Coral Essential Fish Habitat (EFH) Amendment
   C. Main Hawaiian Islands (MHI) Kona Crab Fishery
   1. Stock assessment for the MHI Kona Crab
   2. P* Working Group Report on the MHI Kona Crab Fishery
   3. M* Working Group Report on the MHI Kona Crab Fishery
   D. Discussions
   E. Public Comment
12. Monitoring and Updating Priorities
   A. Council's Five-year Research Priorities
   B. Cooperative Research Priorities
13. General Discussions
14. Fishery Ecosystem Plan Team Recommendations
15. Other Business

Agenda for FDCRC–DTC Meeting

Wednesday, May 8, 2018, 8:30 a.m. to 5 p.m.

1. Welcome and Introductions
2. Approval of Draft Agenda, 2018 Report & Assignment of Rapporteurs
3. Report on Previous FDCRC–DTC Recommendations and Council Actions
4. Status of the Fishery Dependent Data Collection Improvement Efforts
   A. American Samoa
   B. Guam
   C. CNMI
   D. Hawaii
   E. Territory Science Initiative Projects
   F. Western Pacific Fishery Information Network Database Transition and Online Interface
   G. Discussions
   H. Public Comment
5. Status of the MRIP Regional Implementation Plan
6. Application of electronic reporting for the bottomfish fishery
7. Machine Learning Software to support fishery data collection
8. Report on the Hawaii Bio-Sampling Program
9. Western Pacific Insular Fisheries Monitoring Workshop
10. Work Session in collating information needed for the Workshop
11. General Discussions
12. FDCRC–DTC Recommendations
13. Other Business

Agenda for the Pelagics FEP Team Meeting

Thursday, May 9, 2019, 8.30 a.m. to 5 p.m.

1. Introductions
2. Review 2018 Annual SAFE Report Modules
   A. Fishery Data Modules
   i. American Samoa
   ii. CNMI
   iii. Guam
   iv. Hawaii
   v. International
   vi. Recreational Fisheries
   B. Ecosystem Considerations
   i. Environmental & Climate Variables Section
   ii. Habitat Section
   iii. Marine Planning Section
   iv. Human Dimensions Section
   v. Protected Species Section
   C. Data Integration Section
   D. Web-interface of the Annual SAFE Report
   E. 2018 Annual Report Region-Wide Improvements
3. Public Comment

Friday, May 10, 2019, 8:30 a.m. to 5 p.m.

4. Pelagics FEP Council Actions for 2018
   A. Electronic Reporting in Hawaii Longline Fishery
   B. Hawaii Shallow-Set Longline Modification for FEP
   C. Amendment 8 Striped Marlin Updates
5. Developing Draft Minimum Standards for Tori Lines in the Hawaii Longline Fishery
6. Ecosystem-based Fishery Management Turtle Project
7. Hawaii Division of Aquatic Resources (DAR) Fisher Reporting System (FRS) Database for Pelagic Indicators
8. Updates to Ancillary Pelagic Management Unit Specie (PMUS) Indicators Project
9. Other Business
10. Public Comment
11. Pelagic Plan Team Recommendations

Special Accommodations

These meetings are physically accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aids should be directed to Kitty M. Simonds, telephone: (808) 522–8220; fax: (808) 522–8226, at least 5 days prior to the meeting date.

Authority: 16 U.S.C. 1801 *et seq.*

Dated: April 10, 2019.

Rey Israel Marquez,

Acting Deputy Director, Office of Sustainable Fisheries, National Marine Fisheries Service.

[FR Doc. 2019–07450 Filed 4–12–19; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN 0648–XG952

North Pacific Fishery Management Council; Public Meeting

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of telephonic meeting.

SUMMARY: The North Pacific Fishery Management Council (Council) Community Engagement Committee (CEC) will hold a teleconference on April 29, 2019.

DATES: The teleconference will be held on Monday, April 29, 2019, from 2 p.m. to 4 p.m. Alaska Daylight Time.

ADDRESSES: The meeting will be held telephonically. Teleconference number is (907) 245–3900, Pin is 2809.

Council address: North Pacific Fishery Management Council, 605 W 4th Ave., Suite 306, Anchorage, AK 99501–2252; telephone: (907) 271–2809.

FOR FURTHER INFORMATION CONTACT: Steve MacLean, Council staff; telephone: (907) 271–2809.

SUPPLEMENTARY INFORMATION:

Agenda

Monday, April 29, 2019

The purpose of the meeting is to review the list of engagement protocols currently employed by the Council.

The Agenda is subject to change, and the latest version will be posted at *https://www.npfmc.org* prior to the meeting.

Public Comment

Public comment letters will be accepted and should be submitted either via email at: *Steve.MacLean@noaa.gov* or through the mail: North Pacific Fishery Management Council, 605 W 4th Ave., Suite 306, Anchorage, AK 99501–2252. In-person oral public testimony will be accepted at the discretion of the chair.

Special Accommodations

These meetings are physically accessible to people with disabilities.

Requests for sign language interpretation or other auxiliary aids should be directed to Shannon Gleason at (907) 271–2809 at least 7 working days prior to the meeting date.

Dated: April 10, 2019.

Rey Israel Marquez,

Acting Deputy Director, Office of Sustainable Fisheries, National Marine Fisheries Service.

[FR Doc. 2019–07446 Filed 4–12–19; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

Proposed Information Collection; Comment Request; Permit and Reporting Requirements for Non-Commercial Fishing in the Rose Atoll, Marianas Trench, and Pacific Remote Islands Marine National Monuments

AGENCY: National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice.

SUMMARY: The Department of Commerce, as part of its continuing effort to reduce paperwork and respondent burden, invites the general public and other Federal agencies to take this opportunity to comment on proposed and/or continuing information collections, as required by the Paperwork Reduction Act of 1995.

DATES: Written comments must be submitted on or before June 14, 2019.

ADDRESSES: Direct all written comments to Jennifer Jessup, Departmental Paperwork Clearance Officer, Department of Commerce, Room 6616, 14th and Constitution Avenue NW, Washington, DC 20230 (or via the internet at *PRAcomments@doc.gov*).

FOR FURTHER INFORMATION CONTACT: Requests for additional information or copies of the information collection instrument and instructions should be directed to Walter Ikehara, Fishery Information Specialist, Pacific Islands Region, Sustainable Fisheries Division, 1845 Wasp Blvd., Bldg. 176, Honolulu, HI 96818, (808) 725–5175, *walter.ikehara@noaa.gov.*

SUPPLEMENTARY INFORMATION:

I. Abstract

NMFS manages non-commercial fishing activities in the Rose Atoll Marine, Marianas Trench, and Pacific Remote Islands Marine National Monuments. Regulations at 50 CFR part 665 require the owner and operator of a vessel used to non-commercially fish for, take, retain, or possess any management unit species in these monuments to hold a valid permit issued by NMFS.

Regulations also require the owner and operator of a vessel that is chartered to fish recreationally for, take, retain, or possess, any management unit species in these monuments to hold a valid permit issued by NMFS. The fishing vessel must be registered to the permit. The charter business must be established legally in the permit area where it will operate. Charter vessel clients are not required to have a permit.

The permit application collects basic information about the permit applicant, type of operation, vessel, and permit area. NMFS uses this information to confirm the identity of the applicant and determine permit eligibility. The information is important for understanding the nature of the fishery and its participants. It also aids in the enforcement of fishing regulations within the monuments.

Regulations also require the vessel operator to report a complete record of catch, effort, and other data on a NMFS log sheet. The vessel operator must record all requested information on the log sheet within 24 hours of the completion of each fishing day. The vessel operator also must sign, date, and submit the form to NMFS within 30 days of the end of each fishing trip. NMFS uses the information provided in the log sheets to monitor fishing activities, evaluate and assess the status of fish stocks and determine whether changes in management are needed to sustain the productivity of the fishery and conserve marine resources.

II. Method of Collection

Information is collected on paper forms.

III. Data

OMB Control Number: 0648–0664.

Form Number(s): None.

Type of Review: Regular submission (extension of a current information collection).

Affected Public: Business or other for-profit organizations, individuals or households.

Estimated Number of Respondents: 25.

Estimated Time per Response: 15 minutes per permit application, 20 minutes per log sheet.

Estimated Total Annual Burden Hours: 40.

Estimated Total Annual Cost to Public: $100 for photocopying and mailing.

IV. Request for Comments

Comments are invited on: (a) Whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden (including hours and cost) of the proposed collection of information; (c) ways to enhance the quality, utility, and clarity of the information to be collected; and (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology.

Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval of this information collection; they also will become a matter of public record.

Sheleen Dumas,

Departmental Lead PRA Officer, Office of the Chief Information Officer, Commerce Department.

[FR Doc. 2019–07409 Filed 4–12–19; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN 0648–XG840

Pacific Fishery Management Council; Public Meeting

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of public meeting (webinar).

SUMMARY: The Pacific Fishery Management Council's (Pacific Council) Groundfish Endangered Species Workgroup will hold a two-day meeting open to the public.

DATES: The meeting will begin at 9 a.m. on Tuesday, April 30, 2019 and 9 a.m. on Wednesday, May 1, 2019 until business for the day has been completed.

ADDRESSES: The meeting will be held in the Large Conference Room of Building 1 of the NOAA Western Regional Center, 7600 Sand Point Way NE, Seattle, WA 98115–6349. Members of the public can participate in person, via teleconference, and/or through GoToWebinar. Members of the public who wish to attend the meeting in person must contact Mr. Brian Hooper

(*brian.hooper@noaa.gov* or (206) 526–6117) at least one week prior to the meeting to arrange entrance to this NOAA facility. To attend the meeting via webinar, see **SUPPLEMENTARY INFORMATION.**

Council address: Pacific Fishery Management Council, 7700 NE Ambassador Place, Suite 101, Portland, OR 97220.

FOR FURTHER INFORMATION CONTACT: Dr. Kit Dahl, Pacific Council; telephone: (503) 820–2422.

SUPPLEMENTARY INFORMATION: To attend the webinar (1) join the meeting by visiting this link *https://www.gotomeeting.com/webinar,* (2) enter the Webinar ID: 839–781–363, and (3) enter your name and email address (required). After logging in to the webinar, please (1) dial this TOLL number 1–914–614–3221 (not a toll-free number), (2) enter the attendee phone audio access code 418–920–840, and (3) then enter your audio phone pin (shown after joining the webinar). NOTE: We have disabled Mic/Speakers as an option and require all participants to use a telephone or cell phone to participate. Technical Information and system requirements: PC-based attendees are required to use Windows® 7, Vista, or XP; Mac®-based attendees are required to use Mac OS® X 10.5 or newer; Mobile attendees are required to use iPhone®, iPad®, Android™ phone or Android tablet (See the *https://www.gotomeeting.com/webinar/ipad-iphone-android-webinar-apps*). You may send an email to Mr. Kris Kleinschmidt at *Kris.Kleinschmidt@noaa.gov* or contact him at (503) 820–2280, extension 411 for technical assistance.

The primary purpose of the meeting is to review recent information on take of species listed under the Endangered Species Act in the Pacific Coast groundfish fishery (other than salmonids). The workgroup will provide recommendations to the Council on any additional mitigation measures needed to meet the requirements of the Act, as implemented through the terms and conditions in the most recent biological opinions for the fishery.

Although non-emergency issues not contained in the meeting agenda may be discussed, those issues may not be the subject of formal action during this meeting. Action will be restricted to those issues specifically listed in this document and any issues arising after publication of this document that require emergency action under section 305(c) of the Magnuson-Stevens Fishery Conservation and Management Act, provided the public has been notified of the intent to take final action to address the emergency.

Special Accommodations

This meeting is physically accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aids should be directed to Mr. Kris Kleinschmidt at (503) 820–2411 at least 10 business days prior to the meeting date.

Dated: April 10, 2019.

Rey Israel Marquez,

Acting Deputy Director, Office of Sustainable Fisheries, National Marine Fisheries Service.

[FR Doc. 2019–07445 Filed 4–12–19; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN 0648–XG928

Mid-Atlantic Fishery Management Council (MAFMC); Public Meeting

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice; public meeting.

SUMMARY: The Mid-Atlantic Fishery Management Council's Summer Flounder, Scup, and Black Sea Bass Advisory Panel will hold a public meeting.

DATES: The meeting will be held on Friday, May 3, 2019, from 10 a.m. to 11:30 a.m.

ADDRESSES: The meeting will be held via webinar with an audio-only connection option. Details on the proposed agenda, connection information, and briefing materials will be posted at the MAFMC's website: *www.mafmc.org.*

Council address: Mid-Atlantic Fishery Management Council, 800 N. State Street, Suite 201, Dover, DE 19901; telephone: (302) 674–2331; *www.mafmc.org.*

FOR FURTHER INFORMATION CONTACT: Christopher M. Moore, Ph.D., Executive Director, Mid-Atlantic Fishery Management Council, telephone: (302) 526–5255.

SUPPLEMENTARY INFORMATION: The purpose of the meeting is for the Advisory Panel to provide feedback on the development of the Council's 2020–24 strategic plan, after reviewing the results of a recent strategic planning stakeholder survey. An agenda and background documents will be posted at the Council's website (*www.mafmc.org*) prior to the meeting.

Special Accommodations

The meeting is physically accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aid should be directed to M. Jan Saunders, (302) 526–5251, at least 5 days prior to the meeting date.

Dated: April 10, 2019.

Rey Israel Marquez,

Acting Deputy Director, Office of Sustainable Fisheries, National Marine Fisheries Service.

[FR Doc. 2019–07451 Filed 4–12–19; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN 0648–XG966

Mid-Atlantic Fishery Management Council (MAFMC); Public Meeting

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice; public meeting.

SUMMARY: The Mid-Atlantic Fishery Management Council's (Council) Scientific and Statistical Committee (SSC) will hold a meeting.

DATES: The meeting will be held on Tuesday, May 7, 2019, from 10 a.m. through 5 p.m. and on Wednesday, May 8, 2019, from 8:30 a.m. to 12 noon. See **SUPPLEMENTARY INFORMATION** for agenda details.

ADDRESSES: The meeting will take place at the Royal Sonesta Harbor Place, 550 Light Street, Baltimore, MD 21202; telephone: (410) 234–0550.

Council address: Mid-Atlantic Fishery Management Council, 800 N State Street, Suite 201, Dover, DE 19901; telephone: (302) 674–2331; website: *www.mafmc.org.*

FOR FURTHER INFORMATION CONTACT: Christopher M. Moore, Ph.D., Executive Director, Mid-Atlantic Fishery Management Council, telephone: (302) 526–5255.

SUPPLEMENTARY INFORMATION: The purpose of this meeting is to review the most recent survey and fishery data and the previously recommended 2020 acceptable biological catch (ABC) for Atlantic mackerel, butterfish, longfin squid, *Illex* squid, Atlantic surfclam and ocean quahog. The SSC will review and provide feedback on the development of the Council's 2020–24 Strategic Plan. The SSC will also review and approve

guidelines for how the SSC selects an appropriate coefficient of variation (CV) for the overfishing limit (OFL) in its ABC-setting process. In addition, the SSC may take up any other business as necessary.

A detailed agenda and background documents will be made available on the Council's website (*www.mafmc.org*) prior to the meeting.

Special Accommodations

These meetings are physically accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aid should be directed to M. Jan Saunders, (302) 526–5251, at least 5 days prior to the meeting date.

Dated: April 10, 2019.

Rey Israel Marquez,

Acting Deputy Director, Office of Sustainable Fisheries, National Marine Fisheries Service.

[FR Doc. 2019–07449 Filed 4–12–19; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN 0648–XG962

South Atlantic Fishery Management Council; Public Meetings

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice for public scoping meetings.

SUMMARY: The South Atlantic Fishery Management Council (Council) will hold two scoping meetings to get input on options being considered for adding bullet mackerel and frigate mackerel as ecosystem component species to the Dolphin Wahoo Fishery Management Plan (FMP) for the Atlantic Region. Written comments will also be accepted.

DATES: The scoping meetings will be held May 7 and May 9, 2019, beginning at 6 p.m.

ADDRESSES: *Council address:* South Atlantic Fishery Management Council, 4055 Faber Place Drive, Suite 201, N. Charleston, SC 29405.

FOR FURTHER INFORMATION CONTACT: Kim Iverson, Public Information Officer, SAFMC; phone: (843) 571–4366 or toll free: (866) SAFMC–10; fax: (843) 769–4520; email: *kim.iverson@safmc.net.*

SUPPLEMENTARY INFORMATION: The Council is considering adding bullet mackerel and frigate mackerel to the Dolphin Wahoo FMP as ecosystem component species. This action is being considered in acknowledgement of the role the two unmanaged mackerel species play as important forage for both dolphin and wahoo. The Council is soliciting public input on the proposed option through public scoping before deciding if it will move forward with any action.

Council staff will provide a presentation followed by a question and answer session and give participants an opportunity to provide formal comments during each scoping meeting webinar. Registration for each webinar is required. Registration information for the webinars, along with the public scoping document, presentation, online public comment form, and additional information will be available from the Council's website at: *http://safmc.net/safmc-meetings/public-hearings-scoping-meetings/* as it becomes available.

The Council requests that written comments be submitted using the online public comment form available from the Council's website at: *http://safmc.net/safmc-meetings/public-hearings-scoping-meetings/.* All comments submitted using the online form will be automatically posted to the website and accessible for Council members and the public to view. Written comments may also be submitted by mail or FAX. All written comments are due by 5 p.m. on May 16, 2019.

Comments may be submitted by mail to: Gregg Waugh, Executive Director, SAFMC, 4055 Faber Place Drive, Suite 201, North Charleston, SC 29405. Fax comments to (843) 769–4520.

Special Accommodations

These meetings are physically accessible to people with disabilities. Requests for auxiliary aids should be directed to the Council office (see **ADDRESSES**) 3 days prior to the meeting.

Note: The times and sequence specified in this agenda are subject to change.

Authority: 16 U.S.C. 1801 *et seq.*

Dated: April 10, 2019.

Rey Israel Marquez,

Acting Deputy Director, Office of Sustainable Fisheries, National Marine Fisheries Service.

[FR Doc. 2019–07447 Filed 4–12–19; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

Proposed Information Collection; Comment Request; Atlantic Highly Migratory Species Recreational Landings and Bluefin Tuna Catch Reports

AGENCY: National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice.

SUMMARY: The Department of Commerce, as part of its continuing effort to reduce paperwork and respondent burden, invites the general public and other Federal agencies to take this opportunity to comment on proposed and/or continuing information collections, as required by the Paperwork Reduction Act of 1995.

DATES: Written comments must be submitted on or before June 14, 2019.

ADDRESSES: Direct all written comments to Jennifer Jessup, Departmental Paperwork Clearance Officer, Department of Commerce, Room 6616, 14th and Constitution Avenue NW, Washington, DC 20230 (or via the internet at *PRAcomments@doc.gov*).

FOR FURTHER INFORMATION CONTACT: Requests for additional information or copies of the information collection instrument and instructions should be directed to Peter Cooper, (301) 427–8503 or *Peter.Cooper@noaa.gov.*

SUPPLEMENTARY INFORMATION:

I. Abstract

Catch reporting from recreational and commercial hand-gear fisheries provides important data used to monitor catches of Atlantic highly migratory species (HMS) and supplements other existing data collection programs. Data collected through this program are used for both domestic and international fisheries management and stock assessment purposes.

Atlantic bluefin tuna (BFT) catch reporting provides real-time catch information used to monitor the BFT fishery. Under the Atlantic Tunas Convention Act of 1975 (ATCA, 16 U.S.C. 971), the United States is required to adopt regulations, as necessary and appropriate, to implement recommendations of the International Commission for the Conservation of Atlantic Tunas (ICCAT), including recommendations on a specified BFT quota. BFT catch reporting helps the U.S. monitor this quota and supports scientific research consistent with ATCA and the

Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act, 16 U.S.C. 1801 *et seq.*). Recreational anglers and commercial hand-gear fishermen are required to report specific information regarding their catch of BFT.

Atlantic billfish and swordfish are managed internationally by ICCAT and nationally under ATCA and the Magnuson-Stevens Act. This collection provides information needed to monitor the recreational catch of Atlantic blue marlin, white marlin, and roundscale spearfish, which is applied to the recreational limit established by ICCAT, and the recreational catch of North Atlantic swordfish, which is applied to the U.S. quota established by ICCAT. This collection also provides information on recreational landings of West Atlantic sailfish, which is unavailable from other established monitoring programs.

II. Method of Collection

Respondents reporting BFT catch in states (and the United States Virgin Islands and Puerto Rico) other than Maryland and North Carolina may use either an internet website, smartphone app, or a toll-free telephone number. Respondents reporting Atlantic marlin, West Atlantic sailfish, or North Atlantic swordfish in states (and the United States Virgin Islands and Puerto Rico) other than Maryland or North Carolina may use either an internet website, smartphone app, or a toll-free telephone number to report landings information. In Maryland and North Carolina, a paper reporting system is used for all of the aforementioned species. Under state law, respondents in Maryland and North Carolina must submit a landing card at a state-operated reporting station. States that participate in an approved landing card program must submit weekly reports and one annual report to NOAA to summarize landings and results to date.

III. Data

OMB Control Number: 0648–0328.

Form Number(s): None.

Type of Review: Regular submission.

Affected Public: Businesses or other for-profit organizations; individuals or households; and State, Local, or Tribal government.

Estimated Number of Respondents: 16,185.

Estimated Time per Response: 5 minutes for an initial call-in, internet, or smartphone app report; 5 minutes for a confirmation call; 10 minutes for a landing card; 1 hour for a weekly state report; and 4 hours for an annual state report.

Estimated Total Annual Burden Hours: 1,819.

Estimated Total Annual Cost to Public: $0.

IV. Request for Comments

Comments are invited on: (a) Whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden (including hours and cost) of the proposed collection of information; (c) ways to enhance the quality, utility, and clarity of the information to be collected; and (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology.

Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval of this information collection; they also will become a matter of public record.

Sheleen Dumas,

Departmental Lead PRA Officer, Office of the Chief Information Officer, Commerce Department.

[FR Doc. 2019–07410 Filed 4–12–19; 8:45 am]

BILLING CODE 3510–22–P

COMMISSION OF FINE ARTS

Notice of Meeting

The next meeting of the U.S. Commission of Fine Arts is scheduled for 18 April 2019, at 9:00 a.m. in the Commission offices at the National Building Museum, Suite 312, Judiciary Square, 401 F Street NW, Washington DC, 20001–2728. Items of discussion may include buildings, parks and memorials.

Draft agendas and additional information regarding the Commission are available on our website: *www.cfa.gov.* Inquiries regarding the agenda and requests to submit written or oral statements should be addressed to Thomas Luebke, Secretary, U.S. Commission of Fine Arts, at the above address; by emailing *cfastaff@cfa.gov;* or by calling 202–504–2200. Individuals requiring sign language interpretation for the hearing impaired should contact the Secretary at least 10 days before the meeting date.

Dated 1 April 2019 in Washington DC.

Thomas Luebke,

Secretary.

[FR Doc. 2019–06673 Filed 4–12–19; 8:45 am]

BILLING CODE 6330–01–P

COMMODITY FUTURES TRADING COMMISSION

Agency Information Collection Activities Under OMB Review

AGENCY: Commodity Futures Trading Commission.

ACTION: Notice.

SUMMARY: In compliance with the Paperwork Reduction Act of 1995 (''PRA''), this notice announces that the Information Collection Request (''ICR'') abstracted below has been forwarded to the Office of Management and Budget (''OMB'') for review and comment. The ICR describes the nature of the information collection and its expected costs and burdens.

DATES: Comments must be submitted on or before May 15, 2019.

ADDRESSES: Comments regarding the burden estimate or any other aspect of the information collection, including suggestions for reducing the burden, may be submitted directly to the Office of Information and Regulatory Affairs (''OIRA'') in OMB within 30 days of the publication of this notice, by either of the following methods. Please identify the comments by ''OMB Control No. 3038–0094.''

- *By email addressed to: OIRA submissions@omb.eop.gov* or
- *By mail addressed to:* The Office of Information and Regulatory Affairs, Office of Management and Budget, Attention: Desk Officer for the Commodity Futures Trading Commission, 725 17th Street NW, Washington, DC 20503.

A copy of all comments submitted to OIRA should be sent to the Commodity Futures Trading Commission (''CFTC'' or ''Commission'') by any of the following methods. The copies sent to the Commission also should refer to ''OMB Control No. 3038–0094.''

- *By mail addressed to:* Christopher Kirkpatrick, Secretary of the Commission, Commodity Futures Trading Commission, Three Lafayette Centre, 1155 21st Street NW, Washington, DC 20581;
- By Hand Delivery/Courier to the same address; or
- Through the Commission's website at *http://comments.cftc.gov.* Please follow the instructions for submitting comments through the website.

A copy of the supporting statement for the collection of information discussed herein may be obtained by visiting *http://RegInfo.gov.*

All comments must be submitted in English, or if not, accompanied by an English translation. Comments will be posted as received to *http://www.cftc.gov.* You should submit only information that you wish to make available publicly. If you wish the Commission to consider information that you believe is exempt from disclosure under the Freedom of Information Act, a petition for confidential information of the exempt information may be submitted according to the procedures established in § 145.9 of the Commission's regulations.[1] The Commission reserves the right, but shall have no obligation to review, pre-screen, filter, redact, refuse or remove any or all of your submission from *http://www.cftc.gov* that it may deem to be inappropriate for publication, such as obscene language. All submissions that have been redacted or removed that contain comments on the merits of the ICR will be retained in the public comment file and will be considered as required under the Administrative Procedure Act and other applicable laws, and may be accessible under the Freedom of Information Act.

FOR FURTHER INFORMATION CONTACT: Jocelyn Partridge, Special Counsel, Division of Clearing and Risk, Commodity Futures Trading Commission, (202) 418–5926; email: *jpartridge@cftc.gov.*

SUPPLEMENTARY INFORMATION:

Title: Clearing Member Risk Management (OMB Control No. 3038–0094). This is a request for extension of a currently approved information collection.

Abstract: Section 3(b) of the Commodity Exchange Act (''Act'' or ''CEA'') provides that one of the purposes of the Act is to ensure the financial integrity of all transactions subject to the Act and to avoid systemic risk. Section 8a(5) authorizes the Commission to promulgate such regulations that it believes are reasonably necessary to effectuate any of the provisions or to accomplish any of the purposes of the Act. Risk management systems are critical to the avoidance of systemic risks.

Section 4s(j)(2) requires each Swap Dealer (''SD'') and Major Swap Participant (''MSP'') to have risk management systems adequate for managing its business. Section 4s(j)(4) requires each SD and MSP to have internal systems and procedures to perform any of the functions set forth in Section 4s.

Section 4d requires FCMs to register with the Commodity Futures Trading Commission (''Commission''). It further requires Futures Commission Merchants (''FCMs'') to segregate customer funds. Section 4f requires FCMs to maintain certain levels of capital. Section 4g establishes reporting and recordkeeping requirements for FCMs.

Pursuant to these provisions, the Commission adopted § 1.73 which applies to clearing members that are FCMs and § 23.609 which applies to clearing members that are SDs or MSPs. These provisions require these clearing members to have procedures to limit the financial risks they incur as a result of clearing trades and liquid resources to meet the obligations that arise. The regulations require clearing members to: (1) Establish credit and market risk-based limits based on position size, order size, margin requirements, or similar factors; (2) use automated means to screen orders for compliance with the risk-based limits; (3) monitor for adherence to the risk-based limits intra-day and overnight; (4) conduct stress tests of all positions in the proprietary account and all positions in any customer account that could pose material risk to the futures commission merchant at least once per week; (5) evaluate its ability to meet initial margin requirements at least once per week; (6) evaluate its ability to meet variation margin requirements in cash at least once per week; (7) evaluate its ability to liquidate the positions it clears in an orderly manner, and estimate the cost of the liquidation at least once per month; and (8) test all lines of credit at least once per quarter.

Each of these items has been observed by Commission staff as an element of an existing sound risk management program at an SD, MSP, or FCM. The Commission regulations require each clearing member to establish written procedures to comply with this regulation and to keep records documenting its compliance. The information collection obligations imposed by the regulations are necessary to implement certain provisions of the CEA, including ensuring that registrants exercise effective risk management and for the efficient operation of trading venues among SDs, MSPs, and FCMs.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.[2] On November 14, 2018, the Commission published in the **Federal Register** notice of the proposed extension of this information collection and provided 60 days for public comment on the proposed extension, 83 FR 56828 (''60-Day Notice''). The Commission did not receive any relevant comments. Accordingly, it did not alter the burden estimates set forth in the 60-Day Notice.

Burden Statement: The respondent burden for this collection is estimated to average 2 hours per response for an estimated annual burden of 504 hours per respondent. This estimate includes the total time, effort, or financial resources expended by persons to generate, maintain, retain, disclose, or provide information to or for a federal agency.

Respondents/Affected Entities: Clearing member Swap Dealers, Major Swap Participants, and Futures Commission Merchants.

Estimated Number of Respondents: 166 (101 Clearing Member Swap Dealers and 65 Clearing Member Futures Commission Merchants).

Estimated Average Burden Hours per Respondent: 504.

Estimated Total Annual Burden Hours: 83,664 hours.

Frequency of Collection: As needed.

There are no capital costs or operating and maintenance costs associated with this collection.

(Authority: 44 U.S.C. 3501 *et seq.*)

Dated: April 9, 2019.

Robert Sidman,

Deputy Secretary of the Commission.

[FR Doc. 2019–07380 Filed 4–12–19; 8:45 am]

BILLING CODE 6351–01–P

COMMODITY FUTURES TRADING COMMISSION

Agency Information Collection Activities: Notice of Intent To Extend Collection Number 3038–0080, Annual Report for Chief Compliance Officer of Registrants

AGENCY: Commodity Futures Trading Commission.

ACTION: Notice.

SUMMARY: The Commodity Futures Trading Commission (''CFTC'' or ''Commission'') is announcing an opportunity for public comment on the proposed extension of a collection of certain information by the agency. Under the Paperwork Reduction Act

[1] 17 CFR 145.9.

[2] The OMB control numbers for the CFTC's regulations were published on December 30, 1981. *See* 46 FR 63035 (Dec. 30, 1981).

(''PRA''), Federal agencies are required to publish notice in the **Federal Register** concerning each proposed collection of information, including each proposed extension of an existing collection of information, and to allow 60 days for public comment. This notice solicits comments on the collections of information mandated by Commission Regulation 3.3 (Chief Compliance Officer).

DATES: Comments must be submitted on or before June 14, 2019.

ADDRESSES: You may submit comments, identified by ''Annual Report for Chief Compliance Officer of Registrants,'' and Collection Number 3038–0080 by any of the following methods:

- The Agency's website, at *http://comments.cftc.gov/.* Follow the instructions for submitting comments through the website.
- *Mail:* Christopher Kirkpatrick, Secretary of the Commission, Commodity Futures Trading Commission, Three Lafayette Centre, 1155 21st Street NW, Washington, DC 20581.
- *Hand Delivery/Courier:* Same as Mail above.

Please submit your comments using only one method.

All comments must be submitted in English, or if not, accompanied by an English translation. Comments will be posted as received to *http://www.cftc.gov.*

FOR FURTHER INFORMATION CONTACT: Pamela M. Geraghty, Special Counsel, Division of Swap Dealer and Intermediary Oversight, Commodity Futures Trading Commission, (202) 418–5634, email: *pgeraghty@cftc.gov.*

SUPPLEMENTARY INFORMATION: Under the PRA,[1] Federal agencies must obtain approval from the Office of Management and Budget (''OMB'') for each collection of information they conduct or sponsor. ''Collection of Information'' is defined in 44 U.S.C. 3502(3) and 5 CFR 1320.3 and includes agency requests or requirements that members of the public submit reports, keep records, or provide information to a third party. Section 3506(c)(2)(A) of the PRA, 44 U.S.C. 3506(c)(2)(A), requires Federal agencies to provide a 60-day notice in the **Federal Register** concerning each proposed collection of information, including each proposed extension of an existing collection of information, before submitting the collection to OMB for approval. To comply with this requirement, the CFTC is publishing notice of the proposed collection of information listed below.

Title: Annual Report for Chief Compliance Officer of Registrants (OMB Control No. 3038–0080). This is a request for an extension of a currently approved information collection.

Abstract: On April 3, 2012, the Commission adopted Commission Regulation 3.3 (Chief Compliance Officer)[2] under sections 4d(d) and 4s(k)[3] of the Commodity Exchange Act (''CEA''). Commission Regulation 3.3 requires each futures commission merchant (''FCM'')[4], swap dealer (''SD'')[5], and major swap participant (''MSP'')[6] to designate, by filing a form 8–R, a chief compliance officer who is responsible for developing and administering policies and procedures that fulfill certain duties of the SD, MSP, or FCM and that are reasonably designed to ensure the registrant's compliance with the CEA and Commission regulations; establishing procedures for the remediation of noncompliance issues identified by the chief compliance officer; establishing procedures for the handling, management response, remediation, retesting, and closing of noncompliance issues; preparing, signing, certifying and filing with the Commission an annual compliance report that contains the information specified in the regulations; amending the annual report if material errors or omissions are identified; and maintaining records of the registrant's compliance policies and procedures and records related to the annual report. The information collection obligations imposed by Commission Regulation 3.3 are essential to ensuring that FCMs, SDs, and MSPs maintain comprehensive policies and procedures that promote compliance with the CEA and Commission regulations. In particular, the Commission believes that, among other things, these obligations (i) promote compliance behavior through periodic self-evaluation, (ii) inform the Commission of possible compliance weaknesses, (iii) assist the Commission in determining whether the registrant remains in compliance with the CEA and Commission regulations, and (iv) help the Commission to assess whether the registrant has mechanisms in place to adequately address compliance problems that could lead to a failure of the registrant. With respect to the collection of information, the CFTC invites comments on:

- Whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information will have a practical use;
- The accuracy of the Commission's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;
- Ways to enhance the quality, usefulness, and clarity of the information to be collected; and
- Ways to minimize the burden of collection of information on those who are to respond, including through the use of appropriate automated electronic, mechanical, or other technological collection techniques or other forms of information technology; *e.g.,* permitting electronic submission of responses.

You should submit only information that you wish to make available publicly. If you wish the Commission to consider information that you believe is exempt from disclosure under the Freedom of Information Act, a petition for confidential treatment of the exempt information may be submitted according to the procedures established in § 145.9 of the Commission's regulations.[7]

The Commission reserves the right, but shall have no obligation, to review, pre-screen, filter, redact, refuse or remove any or all of your submission from *http://www.cftc.gov* that it may deem to be inappropriate for publication, such as obscene language. All submissions that have been redacted or removed that contain comments on the merits of the information collection request will be retained in the public comment file and will be considered as required under the Administrative Procedure Act and other applicable laws, and may be accessible under the Freedom of Information Act.

Burden Statement: In light of the contraction in the number of Commission-registered SDs and FCMs since the Commission promulgated Regulation 3.3, the Commission is revising its estimate of the burden for this collection. Accordingly, the respondent burden for this collection is estimated to be as follows:

Number of Registrants: 171.

Estimated Average Burden Hours Per Registrant: 1006.

Estimated Aggregate Burden Hours: 172,026.

[1] 44 U.S.C. 3501 *et seq.*

[2] 17 CFR 3.3.

[3] 7 U.S.C. 6d(d) and 6s(k).

[4] For the definition of FCM, *see* section 1a(28) of the CEA and Commission Regulation 1.3(p). 7 U.S.C. 1a(28) and 17 CFR 1.3(p).

[5] For the definition of SD, *see* section 1a(49) of the CEA and Commission Regulation 1.3(ggg). 7 U.S.C. 1a(49) and 17 CFR 1.3(ggg).

[6] For the definitions of MSP, *see* section 1a(33) of the CEA and Commission Regulation 1.3(hhh). 7 U.S.C. 1a(33) and 17 CFR 1.3(hhh).

[7] 17 CFR 145.9.

Frequency of Recordkeeping: Annually or on occasion.

(Authority: 44 U.S.C. 3501 *et seq.*)

Dated: April 9, 2019.

Robert Sidman,

Deputy Secretary of the Commission.

[FR Doc. 2019–07381 Filed 4–12–19; 8:45 am]

BILLING CODE 6351–01–P

DEPARTMENT OF EDUCATION

Applications for New Awards; Perkins Innovation and Modernization Grant Program

AGENCY: Office of Career, Technical, and Adult Education, Department of Education.

ACTION: Notice.

SUMMARY: The Department of Education (Department) is issuing a notice inviting applications for new awards for fiscal year (FY) 2019 for the Perkins Innovation and Modernization Grant Program, Catalog of Federal Domestic Assistance (CFDA) number 84.051F. This notice relates to the approved information collection under OMB control number 1894–0006.

DATES:

Applications Available: April 15, 2019.

Deadline for Notice of Intent to Apply: Applicants are strongly encouraged, but not required, to submit a notice of intent to apply by May 15, 2019.

Date of Pre-Application Webinar: For information about a pre-application webinar or potential future webinars, visit the Perkins Collaborative Resource Network (PCRN) at *http://cte.ed.gov/.*

Deadline for Transmittal of Applications: June 14, 2019.

Deadline for Intergovernmental Review: August 13, 2019.

ADDRESSES: For the addresses for obtaining and submitting an application, please refer to our Common Instructions for Applicants to Department of Education Discretionary Grant Programs, published in the **Federal Register** on February 13, 2019 (84 FR 3768), and available at *www.govinfo.gov/content/pkg/FR-2019-02-13/pdf/2019-02206.pdf.*

FOR FURTHER INFORMATION CONTACT: Laura Messenger, U.S. Department of Education, 400 Maryland Avenue SW, Potomac Center Plaza (PCP), Room 11028, Washington, DC 20202–7241. Telephone: (202) 245–7840. Email: *PerkinsIandMgrants@ed.gov.*

If you use a telecommunications device for the deaf (TDD) or a text telephone (TTY), call the Federal Relay Service (FRS), toll-free, at 1–800–877–8339.

SUPPLEMENTARY INFORMATION:

Full Text of Announcement

I. Funding Opportunity Description

Purpose of Program: The purpose of the Perkins Innovation and Modernization Grant Program is to identify, support, and rigorously evaluate Evidence-Based [1] and innovative strategies and activities to improve and modernize Career and Technical Education (CTE) and ensure workforce skills taught in CTE programs funded under the Carl D. Perkins Career and Technical Education Act of 2006, as amended by the Strengthening Career and Technical Education for the 21st Century Act (Perkins V or the Act) align with labor market needs.

Background: One of the most pressing tasks and most important opportunities facing America today is closing the Nation's workforce skills gap, while unleashing untapped talent where it is needed most. Although the U.S. labor market has strengthened over the last several years, as unemployment has reached historic lows,[2] business leaders continue to voice concerns about the gap between the skills needed to advance their companies, and those that many workers can offer today. The National Federation of Independent Business reported that 35 percent of small businesses were unable to find qualified applicants to fill job openings in January 2019.[3] The U.S. Chamber of Commerce Foundation examined skills gaps on an occupation-by-occupation basis and detailed in a March 2018 report that more job openings than workers contributed to a skills gap of more than 4.4 million job openings. The skills gap was greatest in the health-care sector where over a million health-care jobs are unfilled for lack of qualified workers.[4] The Department knows that there are many ways to validate that students have developed skills that employers need: Industry-recognized certificates, associates degrees, stackable credits and credentials, licenses, advanced degrees, four-year degrees, and apprenticeships. As Secretary DeVos has said, ''We must also rethink education after high school and embrace the fact that a global economy demands a posture of lifelong learning . . . We must put to rest the notion that a traditional four-year degree is the only pathway to success.'' [5]

On July 31, 2018, President Trump signed the Strengthening Career and Technical Education for the 21st Century Act, reauthorizing the Carl D. Perkins Career and Technical Education Act of 2006. Perkins V recognizes the importance of developing employability skills through high-quality CTE programs and aligns several new key definitions to the Workforce Innovation and Opportunity Act (WIOA)(29 U.S.C. 3101 *et seq.*) and the Elementary and Secondary Education Act, as amended by the Every Student Succeeds Act (ESEA)(20 U.S.C. 6301 *et seq.*). For example, the new definition for CTE Programs of Study requires alignment with the needs of industry. State plans under Perkins V require consultation with employers, among others, and the local comprehensive needs assessment must include a description of how CTE programs are aligned to State, regional, or local in-demand industry sectors or occupations. Perkins V allows Eligible Recipients to build off of these new opportunities to redesign CTE programs to better prepare students for successful careers and to rethink and revitalize CTE delivery systems in the United States. One way we will support these efforts through the Perkins Innovation and Modernization Grant Program, funded under section 114(e) of Perkins V, is by awarding up to six competitive grants to Eligible Entities, Eligible Institutions, and Eligible Recipients to create, develop, implement, replicate, or take to scale Evidence-Based, field-initiated innovations that modernize CTE, increase program effectiveness and alignment, and improve student outcomes. Grant funds under this competition may be used for a broad range of approaches to innovation and modernization, and grantees agree to conduct a rigorous Independent Evaluation of their project.

The intent of the Perkins Innovation and Modernization Grant Program is to test new ideas that can help better prepare students for success in the workforce. Section 114(e)(1) of Perkins V requires the strategies and activities funded under this program to be not

[1] Throughout this notice, all defined terms are denoted with capitals.

[2] The Employment Situation, U.S. Bureau of Labor and Statistics. (January 4, 2019). Retrieved from: *www.bls.gov/news.release/pdf/empsit.pdf.*

[3] National Federation of Independent Business. Monthly Job Report (January 2019). Retrieved from: *www.nfib.com/assets/jobs1218hw1.pdf.*

[4] Restuccia, D., Taska, B. and Bittle, S. ''Different Skills, Different Gaps: Measuring & Closing the Skills,'' March 2018. U.S. Chamber of Commerce Foundation. Retrieved from: *www.uschamberfoundation.org/sites/default/files/Skills_Gap_Different_Skills_Different_Gaps_FINAL.pdf.*

[5] Devos, Betsy. Remarks to the House Education and the Workforce Committee, May 22, 2018. Retrieved from: *www.ed.gov/news/speeches/prepared-remarks-us-secretary-education-betsy-devos-house-education-and-workforce-committee.*

only innovative, but also Evidence-Based, using the definition of ''evidence-based'' from the ESEA. This definition includes four tiers of evidence that are distinguished from each other by the strength and extent of rigorous research on the effectiveness of an intervention: An Evidence-Based strategy or activity may be supported by strong evidence, moderate evidence, promising evidence, or evidence that Demonstrates a Rationale. For this competition, through the Absolute Priority, we require applicants to demonstrate that they meet the Demonstrates a Rationale evidence tier and provide a corresponding Logic Model. Evidence that Demonstrates a Rationale means a key Project Component of the proposed strategy or activity is informed by research or evaluation findings that suggest it is likely to improve Relevant Outcomes. This research may include favorable findings from an experimental study, a quasi-experimental design study, a correlational study with statistical controls for selection bias, or some other high-quality research study or evaluation. We consider Demonstrates a Rationale to be an appropriate level of evidence for this competition in order to invite the broadest possible range of innovative solutions to persistent problems in CTE.

Each applicant receiving a grant under this program must provide for an Independent Evaluation of the activities carried out under the grant. Consistent with 34 CFR 75.591, grantees also must cooperate in any evaluation of this program that may be carried out by the Department. Applicants must include an assurance in their applications that they will provide information to the Secretary, as requested, for evaluations that the Secretary may carry out.

In addition, to receive a grant under this program, an applicant must, through cash or in-kind contributions, provide matching funds from non-Federal sources in an amount equal to not less than 50 percent of the funds provided under such grant. Applicants may wish to partner with their Perkins State Eligible Agency [6] in order to pool fiscal and other resources, combine expertise, and coordinate project activities with the State's leadership activities funded under section 124 of Perkins V.

This competition includes three competitive preference priorities. We include a competitive preference priority for projects designed to improve student achievement or other education outcomes in science, technology, engineering, and math (STEM), generally, with an extra preference for projects designed to improve student achievement or other education outcomes in Computer Science, specifically. These competitive preferences are based on Priority 6—Promoting Science, Technology, Engineering, or Math (STEM) Education, With a Particular Focus on Computer Science, from the Secretary's Final Supplemental Priorities and Definitions for Discretionary Grant Programs, published on March 2, 2018 (83 FR 9096) (Secretary's Supplemental Priorities). Projects that address Computer Science may include those that focus on cybersecurity-related education, training, and apprenticeship programs, consistent with the Executive Order on Strengthening the Cybersecurity of Federal Networks and Critical Infrastructure,[7] as well as coding. Preparing secondary and postsecondary CTE students for career opportunities in industries in the STEM sectors, such as advanced manufacturing and health care, is essential to promoting innovation and economic growth. Furthermore, STEM jobs that require less than a bachelor's degree pay higher wages than non-STEM jobs with similar educational requirements.[8]

We include a second competitive preference priority for projects that are designed to predominantly serve students from low-income families, consistent with the statutory requirement in section 114(e)(4) of the Act.

We also include a third competitive preference priority for projects that propose to serve students residing, or attending CTE programs, in Qualified Opportunity Zones. Qualified Opportunity Zones, established under the Tax Cuts and Jobs Act (Pub. Law 115–97), are economically-distressed communities that have been nominated by the Governor of each State and Chief Executive Officer of United States territories and the District of Columbia and that have been certified by the U.S. Secretary of the Treasury. Effectively addressing the education and skill needs of students in Opportunity Zones is central to improving the economic circumstances of these communities. It will also help ensure that community members are trained and ready to assume the new jobs that will be created by the infusion of capital in these local job markets. The Department believes the opportunities for innovative approaches to CTE available through this competition have the potential to improve economic opportunity in economically-distressed communities.

Finally, consistent with section 114(e)(5) of Perkins V, the Department plans to award at least 25 percent of the available funds to applicants serving eligible rural communities, contingent on our receipt of a sufficient number of applications of sufficient quality. Improving access to education and training in rural communities is one of the priority recommendations of the Interagency Task Force on Agriculture and Rural Prosperity that was established by President Trump through Executive Order 13790.[9]

Priorities: This notice contains one absolute priority, three competitive preference priorities, and one invitational priority. We are establishing the absolute priority and Competitive Preference Priorities 1, 2, and 3 for the FY 2019 grant competition and any subsequent year in which we make awards from the list of unfunded applications from this competition, in accordance with section 437(d)(1) of the General Education Provisions Act (GEPA), 20 U.S.C. 1232(d)(1).

Absolute Priority: This priority is an absolute priority. Under 34 CFR 75.105(c)(3), we consider only applications that meet this priority.

This priority is:

Plan for Evidence-Based Field-Initiated Innovations.

To meet this priority, applicants must submit a plan to create, develop, implement, replicate, or take to scale Evidence-Based, field-initiated innovations to modernize and to improve effectiveness and alignment of CTE with labor market needs and to improve student outcomes in CTE.

The plan must include the following information:

(a) A description of how the proposed project will carry out one or more of the allowable activities under section 114(e)(7) of Perkins V, detailed in *Program Requirement 2: Use of Funds,* and how the proposed project is designed to create, develop, implement, replicate, or take to scale Evidence-Based, field-initiated innovations to modernize and improve effectiveness

[6] Applicants can identify their Perkins State Eligible Agency and contact information for that agency in the State profiles published on the Department's web page at *https://cte.ed.gov/profiles/national-summary.*

[7] Trump, Donald, J., Executive Order 13800, 82 FR 22391. (May 11, 2017).

[8] Real-Time Insight into the Market for Entry-Level STEM Jobs, Burning Glass Technologies (2014). Retrieved from: *www.burning-glass.com/wp-content/uploads/Real-Time-Insight-Into-The-Market-For-Entry-Level-STEM-Jobs.pdf.*

[9] Report to the President of the United States from the Task Force on Agriculture and Rural Prosperity (2017). Retrieved at: *www.usda.gov/sites/default/files/documents/rural-prosperity-report.pdf.*

and alignment of CTE with labor market needs and to improve student outcomes in CTE;

(b) A detailed description of the key goals, the activities to be undertaken, including the Independent Evaluation, the rationale for selecting those activities, the timeline, and the parties responsible for implementing the activities; and

(c) A description of how the proposed project Demonstrates a Rationale, including the corresponding Logic Model.

Competitive Preference Priorities: These priorities are competitive preference priorities. Under 34 CFR 75.105(c)(2)(i), we award an additional 3 points to an application that meets Competitive Preference Priority 1(a), and we award an additional 2 points to an application that meets Competitive Preference Priority 1(b), as applicable. We award up to an additional 3 points to an application, depending on how well the application meets Competitive Preference Priority 2, and we award an additional 2 points to an application that meets Competitive Preference Priority 3.

The total maximum points we may award an application that chooses to address all of the Competitive Preference Priorities is 10.

These priorities are:

Competitive Preference Priority 1—Promoting STEM Education and Computer Science Education.

Projects designed to improve student achievement or other education outcomes in one or more of the following areas: Science, technology, engineering, math and Computer Science. An applicant must address Competitive Preference Priority 1(a) or both Competitive Preference Priority 1(a) and Competitive Preference Priority 1(b):

Competitive Preference Priority 1(a)—Promoting STEM Education (three points).

Projects designed to improve student achievement or other education outcomes in one or more of the following areas: Science, technology, engineering, and math. These projects must address one or more of the following priority areas:

(a) Increasing access to STEM coursework, and hands-on learning opportunities, such as through expanded course offerings, dual-enrollment, high-quality online coursework, or other innovative delivery mechanisms.

(b) Creating or expanding partnerships between schools, local educational agencies (LEAs), State educational agencies (SEAs), businesses, not-for-profit organizations, or Institutions of Higher Education (IHEs) to give students access to internships, apprenticeships, or other Work-Based Learning experiences in STEM fields.

(c) Supporting programs that lead to Recognized Postsecondary Credentials or skills that align to the skill needs of industries in the State or regional economy for careers in STEM fields.

Competitive Preference Priority 1(b)—Promoting Computer Science Education (two points).

Projects designed to improve student achievement or other education outcomes in Computer Science. These projects must address one or more of the following priority areas:

(a) Increasing access to Computer Science coursework, and hands-on Computer Science learning opportunities, such as through expanded course offerings, dual-enrollment, high-quality online coursework, or other innovative delivery mechanisms.

(b) Creating or expanding partnerships between schools, LEAs, SEAs, businesses, not-for-profit organizations, or IHEs to give students access to Computer Science internships, apprenticeships, or other Work-Based Learning experiences in Computer Science fields.

(c) Supporting programs that lead to Computer Science Recognized Postsecondary Credentials or skills that align with the skill needs of industries in the State or regional economy for careers in Computer Science.

Competitive Preference Priority 2—Serving Students from Low-Income Families (up to 3 points).

Projects designed to predominantly serve students from low-income families.

To meet this priority, applicants must submit a plan in which the students the applicant proposes to serve are predominantly from low-income families.

The plan must include—

(a) The specific activities the applicant proposes to ensure that the project will predominantly serve students from low-income families;

(b) The rationale for how the proposed activities will result in projects in which the students to be served are predominantly students from low-income families;

(c) The timeline for implementing the activities;

(d) The parties responsible for implementing the activities; and

(e) The key data sources and measures demonstrating that the project is designed to predominantly serve students from low-income families.

Note: These data sources and measures may include: Children aged 5 through 17 in poverty counted in the most recent census data approved by the Secretary;[10] students eligible for a free or reduced-price lunch under the Richard B. Russell National School Lunch Act (42 U.S.C. 1751 *et seq.*); students from families receiving assistance under the State program funded under part A of title IV of the Social Security Act; students eligible to receive medical assistance under the Medicaid Program; students who are Federal Pell Grant recipients; students who are eligible for the Supplemental Nutrition Assistance Program authorized by the Food and Nutrition Act of 2008, as amended (7 U.S.C. 2013 *et seq.*); or a composite of such indicators.

Competitive Preference Priority 3—Serving Students in Qualified Opportunity Zones (two points).

Projects designed to promote economic mobility by serving students residing or attending CTE programs in Qualified Opportunity Zones. To meet this priority, each eligible applicant must—

(a) Submit documentation that identifies at least one designated Qualified Opportunity Zone by census tract number, as well as by the county and State; and

(b) Describe how the project will promote economic mobility by serving students who reside, or who will attend CTE programs, in the designated Qualified Opportunity Zone(s) identified under paragraph (a).

Invitational Priority: For FY 2019, and any subsequent year in which we make awards from the list of unfunded applications from this competition, this priority is an invitational priority. Under 34 CFR 75.105(c)(1), we do not give an application that meets this invitational priority any preference over other applications.

This priority is:

Spurring Investment in CTE from Qualified Opportunity Funds.

Under this priority, an applicant must provide evidence in its application that it has received or will receive financial assistance from a qualified opportunity fund under section 1400Z–2 of the Internal Revenue Code, as amended by the Tax Cuts and Jobs Act, for a purpose directly related to its proposed project, especially for property including needed equipment and technology. In addressing this priority, an applicant must identify the qualified opportunity

[10] The U.S. Census Bureau LEA poverty estimates are available at: *www.census.gov/data/datasets/2017/demo/saipe/2017-school-districts.html.*

fund from which it has received or will receive financial assistance.

Note: Financial assistance from a qualified opportunity fund could allow an eligible applicant to meet the cost sharing or matching requirement in whole or in part.

Requirements: The application requirements are from section 114(e)(3) of Perkins V. All applicants must meet the application requirements in order to be considered for funding. Under the Secretary's transition authority in section 4 of the Strengthening Career and Technical Education for the 21st Century Act, we are waiving the application requirement from section 114(e)(3)(E) of Perkins V that requires applicants to ensure that the plan reflects the comprehensive needs assessment required under section 134(c) of Perkins V, because State and local entities have not yet implemented this provision. The program requirements are established in accordance with section 437(d)(1) of GEPA. However, they are based on sections 114(e)(7) and (e)(8) of Perkins V. The definitions of Computer Science and Independent Evaluation cross referenced in both of the program requirements are established in accordance with section 437(d)(1) of GEPA.

The application requirements are:

(a) Each applicant must identify and designate the agency, institution, or school responsible for the administration and supervision of the proposed project;

(b) Each applicant must describe the budget for the project, including the source and amount of the required matching funds and how the applicant will continue the project after the grant period ends, if applicable;

(c) Each applicant must describe how the applicant will use the grant funds, including how such grant funds will directly benefit students, including Special Populations, served by the applicant;

Note: In addressing this application requirement, applicants should indicate which allowable activities in Program Requirement 2 the applicant intends to fund.

(d) Each applicant must describe how the program assisted under this subsection will be coordinated with the activities carried out under section 124 or 135 of Perkins V.

Note: In addressing this application requirement, applicants need only describe this coordination, to the extent the applicant is aware of State leadership activities or local uses of funds under section 124 or 135 of Perkins V.

(e) Each applicant must describe how the CTE programs or Programs of Study to be implemented with grant funds reflect the needs of regional, State, or local employers;

(f) Each applicant must describe how the proposed program will be evaluated and how that evaluation may inform the report described in section 114(d)(2)(C) of Perkins V; and

Note: In addressing this application requirement, applicants should ensure that their response is consistent with Program Requirement 1.

(g) Each applicant must provide an assurance that the applicant will—

(i) Provide information to the Secretary, as requested, for evaluations that the Secretary may carry out; and

(ii) Make data available to third parties for validation, in accordance with applicable data privacy laws, including section 444 of GEPA (20 U.S.C. 1232g, commonly known as the Family Educational Rights and Privacy Act of 1974).

Note: The applicable FERPA disclosure regulations regarding prior consent may be found at 34 CFR 99.30 and 34 CFR 99.31(a).

The program requirements are:

Program Requirement 1—Evaluation.

In accordance with section 437(d)(1) of GEPA, a grantee must conduct an Independent Evaluation of the activities carried out under the grant and submit to the Secretary an annual report that includes:

(a) A description of how the grant funds were used;

(b) The performance of the project with respect to, at a minimum, the performance indicators described under section 113 of the Act, as applicable, and disaggregated by—

(1) Subgroups of students described in section 1111(c)(2)(B) of the ESEA;

(2) Special Populations; and

(3) As appropriate, each CTE program and Program of Study; and

(c) A quantitative analysis of the effectiveness of the project.

Program Requirement 2—Use of Funds.

In accordance with section 437(d)(1) of GEPA, a grantee must use Perkins Innovation and Modernization funds for one or more of the following activities:

(a) Designing and implementing courses or Programs of Study aligned to labor market needs in new or emerging fields and working with industry to upgrade equipment, technology, and related curriculum used in CTE programs, which is needed for the development, expansion, and implementation of State-approved CTE Programs of Study, including—

(1) The development or acquisition of instructional materials associated with the equipment and technology purchased by an Eligible Entity, Eligible Institution, or Eligible Recipient through the grant; or

(2) Efforts to expand, develop, or implement programs designed to increase opportunities for students to take rigorous courses in coding or Computer Science subject areas, and support for statewide efforts to increase access and implementation of coding or Computer Science courses in order to meet local labor market needs in occupations that require skills in those subject areas.

(b) Improving CTE outcomes of students served by Eligible Entities, Eligible Institutions, or Eligible Recipients through activities such as—

(1) Supporting the development and enhancement of innovative delivery models for CTE-related Work-Based Learning, including school-based simulated work sites, mentoring, work site visits, job shadowing, project-based learning, and skills-based and paid internships;

(2) Increasing the effective use of technology within CTE programs and Programs of Study;

(3) Supporting new models for integrating academic content at the secondary and postsecondary level in CTE; or

(4) Integrating STEM fields, including Computer Science education, with CTE.

(c) Improving the transition of students—

(1) From secondary education to postsecondary education or employment through programs, activities, or services that may include the creation, development, or expansion of Dual or Concurrent Enrollment Programs, Articulation Agreements, Credit Transfer Agreements, and competency-based education; or

(2) From the completion of one postsecondary program to another postsecondary program that awards a Recognized Postsecondary Credential.

(d) Supporting the development and enhancement of innovative delivery models for CTE.

(e) Working with industry to design and implement courses or Programs of Study aligned to labor market needs in new or emerging fields.

(f) Supporting innovative approaches to CTE by redesigning the high school experience for students, which may include Evidence-Based transitional support strategies for students who have not met postsecondary education eligibility requirements.

(g) Creating or expanding recruitment, retention, or professional development activities for CTE teachers, faculty, school leaders, administrators,

Specialized Instructional Support Personnel, career guidance and academic counselors, and Paraprofessionals, which may include—

(1) Providing resources and training to improve instruction for, and provide appropriate accommodations to, Special Populations;

(2) Externships or site visits with business and industry;

(3) The integration of coherent and rigorous academic content standards and CTE curricula, including through opportunities for appropriate academic and CTE teachers to jointly develop and implement curricula and pedagogical strategies;

(4) Mentoring by experienced teachers;

(5) Providing resources or assistance with meeting State teacher licensure and credential requirements; or

(6) Training for career guidance and academic counselors at the secondary level to improve awareness of postsecondary education and postsecondary career options, and improve the ability of such counselors to communicate to students the career opportunities and employment trends.

(h) Improving CTE Concentrator employment outcomes in nontraditional fields.

(i) Supporting the use of CTE programs and Programs of Study in a coordinated strategy to address identified employer needs and workforce shortages, such as shortages in the early childhood, elementary school, and secondary school education workforce.

(j) Providing integrated student support that addresses the comprehensive needs of students, such as incorporating accelerated and differentiated learning opportunities supported by Evidence-Based strategies for Special Populations.

(k) Establishing an online portal for CTE students, including Special Populations, preparing for postsecondary CTE, which may include opportunities for mentoring, gaining financial literacy skills, and identifying career opportunities and interests, and a platform to establish online savings accounts to be used exclusively for postsecondary CTE programs and Programs of Study.

(l) Developing and implementing a Pay for Success Initiative.

Definitions: The definitions of Articulation Agreement, Career and Technical Education, Credit Transfer Agreement, CTE Concentrator, Eligible Agency, Eligible Entity, Eligible Institution, Eligible Recipient, Pay for Success Initiative, Postsecondary Educational Institution, Professional Development, Program of Study, Special Populations, and Work-Based Learning are from section 3 of Perkins V. The definitions of Dual or Concurrent Enrollment Program, Early College High School, Evidence-Based, Paraprofessional, and Specialized Instructional Support Personnel are from section 8101 of the ESEA (20 U.S.C. 7801 *et seq.*) because Perkins V adopted the ESEA definitions (see subsections (15), (16), (23), and (47) of section 3 of Perkins V, respectively). The definition of Institution of Higher Education is from section 101 of the Higher Education Act of 1965, as amended (HEA), because Perkins V adopted the HEA definition (see section 3(30) of Perkins V). The definitions of Baseline, Demonstrates a Rationale, Logic Model, Performance Measure, Performance Target, Project Component, and Relevant Outcome are from 34 CFR 77.1. The definition of Recognized Postsecondary Credential is from section 3 of WIOA (29 U.S.C. 3102), because Perkins V adopted the WIOA definition. The definition of Computer Science is from the Secretary's Supplemental Priorities. We are establishing the definition for Independent Evaluation and Qualified Opportunity Zone for the FY 2019 grant competition and any subsequent year in which we make awards from the list of unfunded applications from this competition, in accordance with section 437(d)(1) of GEPA.

Articulation Agreement means a written commitment—

(a) That is agreed upon at the State level or approved annually by the lead administrators of—

(1) A secondary institution and a Postsecondary Educational Institution; or

(2) A subbaccalaureate degree granting Postsecondary Educational Institution and a baccalaureate degree granting Postsecondary Educational Institution; and

(b) To a program that is—

(1) Designed to provide students with a nonduplicative sequence of progressive achievement leading to technical skill proficiency, a credential, a certificate, or a degree; and

(2) Linked through Credit Transfer Agreements between the 2 institutions described in clause (1) or (2) of subparagraph (a) (as the case may be).

Baseline means the starting point from which performance is measured and targets are set.

Career and Technical Education means organized educational activities that—

(a) Offer a sequence of courses that—

(1) Provides individuals with rigorous academic content and relevant technical knowledge and skills needed to prepare for further education and careers in current or emerging professions, which may include high-skill, high-wage, or in-demand industry sectors or occupations, which shall be, at the secondary level, aligned with the challenging State academic standards adopted by a State under section 1111(b)(1) of the ESEA;

(2) Provides technical skill proficiency or a Recognized Postsecondary Credential which may include an industry-recognized credential, a certificate, or an associate degree; and

(3) May include prerequisite courses (other than a remedial course) that meet the requirements of this subparagraph;

(b) Include competency-based, Work-Based, or other applied learning that supports the development of academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, employability skills, technical skills, and occupation-specific skills, and knowledge of all aspects of an industry, including entrepreneurship, of an individual;

(c) To the extent practicable, coordinate between secondary and postsecondary education programs through Programs of Study, which may include coordination through Articulation Agreements, Early College High School programs, Dual or Concurrent Enrollment Program opportunities, or other Credit Transfer Agreements that provide postsecondary credit or advanced standing; and

(d) May include career exploration at the high school level or as early as the middle grades (as such term is defined in section 8101 of the ESEA).

Computer Science means the study of computers and algorithmic processes and includes the study of computing principles and theories, computational thinking, computer hardware, software design, coding, analytics, and computer applications.

Computer Science often includes computer programming or coding as a tool to create software, including applications, games, websites, and tools to manage or manipulate data; or development and management of computer hardware and the other electronics related to sharing, securing, and using digital information.

In addition to coding, the expanding field of Computer Science emphasizes computational thinking and interdisciplinary problem-solving to equip students with the skills and abilities necessary to apply computation in our digital world.

Computer Science does not include using a computer for everyday activities, such as browsing the internet; use of tools like word processing, spreadsheets, or presentation software; or using computers in the study and exploration of unrelated subjects.

Credit Transfer Agreement means a formal agreement, such as an Articulation Agreement, among and between secondary and postsecondary education institutions or systems that grant students transcripted postsecondary credit, which may include credit granted to students in Dual or Concurrent Enrollment Programs, Early College High School, dual credit, articulated credit, and credit granted on the basis of performance on technical or academic assessments.

CTE Concentrator means—

(a) At the secondary school level, a student served by an Eligible Recipient who has completed at least two courses in a single CTE program or Program of Study; and

(b) At the postsecondary level, a student enrolled in an Eligible Recipient who has—

(1) Earned at least 12 credits within a CTE program or Program of Study; or

(2) Completed such a program if the program encompasses fewer than 12 credits or the equivalent in total.

Demonstrates a Rationale means a key Project Component included in the project's Logic Model is informed by research or evaluation findings that suggest the Project Component is likely to improve Relevant Outcomes.

Dual or Concurrent Enrollment Program means a program offered by a partnership between at least one IHE and at least one LEA through which a secondary school student who has not graduated from high school with a regular high school diploma is able to enroll in one or more postsecondary courses and earn postsecondary credit that—

(a) Is transferable to the IHEs in the partnership; and

(b) Applies toward completion of a degree or recognized educational credential as described in the HEA (20 U.S.C. 1001 *et seq.*).

Early College High School means a partnership between at least one LEA and at least one IHE that allows participants to simultaneously complete requirements toward earning a regular high school diploma and earn not less than 12 credits that are transferable to the IHEs in the partnership as part of an organized course of study toward a postsecondary degree or credential at no cost to the participant or participant's family.

Eligible Agency means a State board designated or created consistent with State law as the sole State agency responsible for the administration of CTE in the State or for the supervision of the administration of CTE in the State.

Eligible Entity means a consortium that includes the following:

(a) Representatives of not less than 2 of the following categories of entities, 1 of which shall serve as the fiscal agent for the consortium:

(1) An LEA or a consortium of such agencies.

(2) An educational service agency serving secondary school students.

(3) An area CTE school or a consortium of such schools.

(4) An Indian Tribe, Tribal organization, or Tribal educational agency.

(5) An IHE whose most common degree awarded is an associate degree, or a consortium of such institutions.

(6) An IHE whose most common degree awarded is a bachelor's or higher degree, or a consortium of such institutions.

(7) An SEA.

(b) One or more business or industry representative partners, which may include representatives of local or regional businesses or industries, including industry or sector partnerships in the local area, local workforce development boards, or labor organizations.

(c) One or more stakeholders, which may include—

(1) Parents and students;

(2) Representatives of local agencies serving out-of-school youth, homeless children and youth, and at-risk youth (as defined in section 1432 of the ESEA (20 U.S.C. 6472));

(3) Representatives of Indian Tribes and Tribal organizations, where applicable;

(4) Representatives of minority-serving institutions (as described in paragraphs (1) through (7) of section 371(a) of the HEA (20 U.S.C. 1067q (a)), where applicable;

(5) Representatives of Special Populations;

(6) Representatives of adult CTE providers; or

(7) Other relevant community stakeholders.

Eligible Institution means—

(a) A consortium of 2 or more of the entities described in subparagraphs (b) through (f);

(b) A public or nonprofit private IHE that offers and will use funds provided under this title in support of CTE courses that lead to technical skill proficiency or a Recognized Postsecondary Credential, including an industry-recognized credential, a certificate, or an associate degree;

(c) An LEA providing education at the postsecondary level;

(d) An area CTE school providing education at the postsecondary level;

(e) An Indian Tribe, Tribal organization, or Tribal education agency that operates a school or may be present in the State;

(f) A Postsecondary Educational Institution controlled by the Bureau of Indian Education or operated by or on behalf of any Indian Tribe that is eligible to contract with the Secretary of the Interior for the administration of programs under the Indian Self-Determination and Education Assistance Act (25 U.S.C. 5301 *et seq.*) or the Act of April 16, 1934 (25 U.S.C. 5342 *et seq.*);

(g) A tribally controlled college or university; or

(h) An educational service agency.

Eligible Recipient means—

(a) An LEA (including a public charter school that operates as an LEA), an area CTE school, an educational service agency, an Indian Tribe, Tribal organization, or Tribal educational agency or a consortium, eligible to receive assistance under section 131; or

(b) An Eligible Institution or consortium of Eligible Institutions eligible to receive assistance under section 132.

Evidence-Based, when used with respect to State, LEA, or school activity, means an activity, strategy, or intervention that—

(1) Demonstrates a Rationale based on high-quality research findings or positive evaluation that such activity, strategy, or intervention is likely to improve student outcomes or other Relevant Outcomes; and

(2) Includes ongoing efforts to examine the effects of such activity, strategy, or intervention.

Note: Under section 3(23) of Perkins V, and specifically for the purpose of this competition, this definition of Evidence-Based from section 8101(21)(A) of the ESEA also applies to an Eligible Entity, an Eligible Institution, and an Eligible Recipient.

Independent Evaluation means an evaluation that is designed and carried out independent of and external to the grantee but in coordination with any employees of the grantee who develop a Project Component that is currently being implemented as part of the grant's activities.

Institution of Higher Education (IHE) means—

(a) An educational institution in any State that—

(1) Admits as regular students only persons having a certificate of graduation from a school providing secondary education, or the recognized equivalent of such a certificate, or persons who meet the requirements of section 484(d)(3) of the HEA;

(2) Is legally authorized within such State to provide a program of education beyond secondary education;

(3) Provides an educational program for which the institution awards a bachelor's degree or provides not less than a 2-year program that is acceptable for full credit toward such a degree, or awards a degree that is acceptable for admission to a graduate or professional degree program, subject to review and approval by the Secretary;

(4) Is a public or other nonprofit institution; and

(5) Is accredited by a nationally recognized accrediting agency or association or, if not so accredited, is an institution that has been granted pre-accreditation status by such an agency or association that has been recognized by the Secretary of Education for the granting of pre-accreditation status, and the Secretary of Education has determined that there is satisfactory assurance that the institution will meet the accreditation standards of such an agency or association within a reasonable time.

(b) The term also includes:

(1) Any school that provides not less than a 1-year program of training to prepare students for gainful employment in a recognized occupation and that meets the provisions of paragraphs (1), (2), (4), and (5) of subsection (a) of this definition; and

(2) A public or nonprofit private educational institution in any State that, in lieu of the requirement in subsection (a)(1) of this definition, admits as regular students individuals—

(A) Who are beyond the age of compulsory school attendance in the State in which the institution is located; or

(B) Who will be dually or concurrently enrolled in the institution and a secondary school.

Logic Model (also referred to as a theory of action) means a framework that identifies key Project Components of the proposed project (*i.e.,* the active ''ingredients'' that are hypothesized to be critical to achieving the Relevant Outcomes) and describes the theoretical and operational relationships among the key Project Components and Relevant Outcomes.

Paraprofessional, also known as a ''paraeducator,'' includes an education assistant and instructional assistant.

Pay for Success Initiative means a performance-based grant, contract, or cooperative agreement awarded by a State or local public entity (such as an LEA) to a public or private nonprofit entity—

(a) In which a commitment is made to pay for improved outcomes that result in increased public value and social benefit to students and the public sector, such as improved student outcomes as evidenced by the indicators of performance described in section 113(b)(2) of Perkins V and direct cost savings or cost avoidance to the public sector; and

(b) That includes—

(1) A feasibility study on the initiative describing how the proposed intervention is based on evidence of effectiveness;

(2) A rigorous, third-party evaluation that uses experimental or quasi-experimental design or other research methodologies that allow for the strongest possible causal inferences to determine whether the initiative has met its proposed outcomes;

(3) An annual, publicly available report on the progress of the initiative; and

(4) A requirement that payments are made to the recipient of a grant, contract, or cooperative agreement only when agreed upon outcomes are achieved, except that the entity may make payments to the third party conducting the evaluation described in subclause (2).

Exclusion—The term ''Pay for Success Initiative'' does not include any initiative that—

(a) Reduces the special education or related services that a student would otherwise receive under the Individuals with Disabilities Education Act (IDEA); or

(b) Otherwise reduces the rights of a student or the obligations of an entity under the IDEA, the Rehabilitation Act of 1973 (29 U.S.C. 701 *et seq.*),[11] the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 *et seq.*), or any other law.

Performance Measure means any quantitative indicator, statistic, or metric used to gauge program or project performance.

Performance Target means a level of performance that an applicant would seek to meet during the course of a project or as a result of a project.

Postsecondary Educational Institution means—

(a) An IHE that provides not less than a 2-year program of instruction that is acceptable for credit toward a bachelor's degree;

(b) A tribally controlled college or university; or

(c) A nonprofit educational institution offering certificate or other skilled training programs at the postsecondary level.

Professional Development means activities that—

(a) Are an integral part of Eligible Agency, Eligible Recipient, institution, or school strategies for providing educators (including teachers, principals, other school leaders, administrators, Specialized Instructional Support Personnel, career guidance and academic counselors, and Paraprofessionals) with the knowledge and skills necessary to enable students to succeed in Career and Technical Education, to meet challenging State academic standards under section 1111(b)(1) of the ESEA, or to achieve academic skills at the postsecondary level; and

(b) Are sustained (not stand-alone, 1-day, or short-term workshops), intensive, collaborative, job-embedded, data-driven, and classroom-focused, to the extent practicable Evidence-Based, and may include activities that—

(1) Improve and increase educators'—

(A) Knowledge of the academic and technical subjects;

(B) Understanding of how students learn; and

(C) Ability to analyze student work and achievement from multiple sources, including how to adjust instructional strategies, assessments, and materials based on such analysis;

(2) Are an integral part of Eligible Recipients' improvement plans;

(3) Allow personalized plans for each educator to address the educator's specific needs identified in observation or other feedback;

(4) Support the recruitment, hiring, and training of effective educators, including educators who became certified through State and local alternative routes to certification;

(5) Advance educator understanding of—

(A) Effective instructional strategies that are Evidence-Based; and

(B) Strategies for improving student academic and technical achievement or substantially increasing the knowledge and teaching skills of educators;

(6) Are developed with extensive participation of educators, parents, students, and representatives of Indian Tribes (as applicable), of schools and institutions served under the Act;

(7) Are designed to give educators of students who are English learners in CTE programs or Programs of Study the

[11] This includes Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794).

knowledge and skills to provide instruction and appropriate language and academic support services to those students, including the appropriate use of curricula and assessments;

(8) As a whole, are regularly evaluated for their impact on increased educator effectiveness and improved student academic and technical achievement, with the findings of the evaluations used to improve the quality of professional development;

(9) Are designed to give educators of individuals with disabilities in CTE programs or Programs of Study the knowledge and skills to provide instruction and academic support services to those individuals, including positive behavioral interventions and supports, multi-tier system of supports, and use of accommodations;

(10) Include instruction in the use of data and assessments to inform and instruct classroom practice;

(11) Include instruction in ways that educators may work more effectively with parents and families;

(12) Provide follow-up training to educators who have participated in activities described in this paragraph that are designed to ensure that the knowledge and skills learned by the educators are implemented in the classroom;

(13) Promote the integration of academic knowledge and skills and relevant technical knowledge and skills, including programming jointly delivered to academic and CTE teachers; or

(14) Increase the ability of educators providing CTE instruction to stay current with industry standards.

Program of Study means a coordinated, nonduplicative sequence of academic and technical content at the secondary and postsecondary level that—

(a) Incorporates challenging State academic standards, including those adopted by a State under section 1111(b)(1) of the ESEA;

(b) Addresses both academic and technical knowledge and skills, including employability skills;

(c) Is aligned with the needs of industries in the economy of the State, region, Tribal community, or local area;

(d) Progresses in specificity (beginning with all aspects of an industry or career cluster and leading to more occupation-specific instruction);

(e) Has multiple entry and exit points that incorporate credentialing; and

(f) Culminates in the attainment of a Recognized Postsecondary Credential.

Project Component means an activity, strategy, intervention, process, product, practice, or policy included in a project. Evidence may pertain to an individual project component or to a combination of project components (*e.g.,* training teachers on instructional practices for English learners and follow-on coaching for these teachers).

Qualified Opportunity Zone is an economically distressed community where new investments, under certain conditions, may be eligible for preferential tax treatment. Localities are Qualified Opportunity Zones if they have been nominated for that designation by the State and that nomination has been certified by the Secretary of the U.S. Treasury via his delegation of authority to the Internal Revenue Service. A list of designated Qualified Opportunity Zones and other resources can be found at: *www.cdfifund.gov/Pages/Opportunity-Zones.aspx.*

Recognized Postsecondary Credential means a credential consisting of an industry-recognized certificate or certification, a certificate of completion of an apprenticeship, a license recognized by the State involved or Federal Government, or an associate or baccalaureate degree.

Relevant Outcome means the student outcome(s) or other outcome(s) the key Project Component is designed to improve, consistent with the specific goals of the program.

Specialized Instructional Support Personnel means—

(a) School counselors, school social workers, and school psychologists; and

(b) Other qualified professional personnel, such as school nurses, speech language pathologists, and school librarians, involved in providing assessment, diagnosis, counseling, educational, therapeutic, and other necessary services (including related services as that term is defined in section 602 of the IDEA (20 U.S.C. 1401)) as part of a comprehensive program to meet student needs.

Special Populations means—

(a) Individuals with disabilities;

(b) Individuals from economically disadvantaged families, including low-income youth and adults;

(c) Individuals preparing for nontraditional fields;

(d) Single parents, including single pregnant women;

(e) Out-of-workforce individuals;

(f) English learners;

(g) Homeless individuals described in section 725 of the McKinney-Vento Homeless Assistance Act (42 U.S.C. 11434a);

(h) Youth who are in, or have aged out of, the foster care system; and

(i) Youth with a parent who—

(1) Is a member of the armed forces (as such term is defined in section 101(a)(4) of title 10, United States Code); and

(2) Is on active duty (as such term is defined in section 101(d)(1) of such title).

Work-Based Learning means sustained interactions with industry or community professionals in real workplace settings, to the extent practicable, or simulated environments at an educational institution that foster in-depth, firsthand engagement with the tasks required of a given career field, that are aligned to curriculum and instruction.

Waiver of Proposed Rulemaking: Under the Administrative Procedure Act (5 U.S.C. 553), the Department generally offers interested parties the opportunity to comment on proposed priorities, program requirements, and definitions. Section 437(d)(1) of GEPA, however, allows the Secretary to exempt from rulemaking requirements regulations governing the first grant competition under a new or substantially revised program authority. This is the first grant competition for this program under section 114(e) of Perkins V and, therefore, qualifies for this exemption. In order to ensure timely grant awards, the Secretary has decided to forgo public comment on the priorities, program requirements, and definitions under section 437(d)(1) of GEPA. These priorities, program requirements, and definitions will apply to the FY 2019 grant competition and any subsequent year in which we make awards from the list of unfunded applications from this competition.

Program Authority: Section 114(e) of Perkins V.

Applicable Regulations: (a) The Education Department General Administrative Regulations in 34 CFR parts 75, 77, 79, 81, 82, 84, 86, 97, 98, and 99. (b) The Office of Management and Budget Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement) in 2 CFR part 180, as adopted and amended as regulations of the Department in 2 CFR part 3485. (c) The Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards in 2 CFR part 200, as adopted and amended as regulations of the Department in 2 CFR part 3474. (d) Secretary's Supplemental Priorities.

Note: The regulations in 34 CFR part 86 apply to IHEs only.

II. Award Information

Type of Award: Discretionary grants.

Estimated Available Funds: $2,800,000.

Contingent upon the availability of funds and the quality of applications, we may make additional awards in subsequent years from the list of unfunded applications from this competition.

Estimated Range of Awards: $400,000–$500,000 for one 36-month project period.

Estimated Average Size of Awards: $450,000.

Estimated Number of Awards: 6.

Note: The Department is not bound by any estimates and does not set a maximum award in this notice.

Project Period: Up to 60 months. We anticipate that initial awards under this competition will be made for a three-year (36-month) period.

Under section 114(e)(6)(B) of Perkins V, contingent upon the availability of funds and each grantee's demonstration to the Secretary that the grantee is achieving the program objectives and, as applicable, has improved education outcomes for CTE students, including Special Populations, the Secretary may make continuation awards to grantees for the remainder of the project period.

Note: Under section 114(e)(5) of Perkins V, the Department must use at least 25 percent of Perkins Innovation and Modernization funds per fiscal year to make awards to applicants serving rural areas, contingent on receipt of a sufficient number of applications of sufficient quality. For purposes of this competition, we will consider an applicant as rural if the applicant meets the qualifications for rural applicants established in section 114(e)(5)(A) of Perkins V, and the applicant certifies that it meets those qualifications in its application. In implementing this statutory provision and program requirement, the Department may fund high-quality applications from rural applicants out of rank order.

III. Eligibility Information

1. *Eligible Applicants:* The following entities are eligible to apply under this competition:

(a) An Eligible Entity.

(b) An Eligible Institution.

(c) An Eligible Recipient.

*Note:*An Eligible Entity must comply with the regulations in 34 CFR 75.127 through 75.129, which address group applications.

2. *Rural Applicants:* To qualify as a rural applicant under section 114(e)(5)(A) of Perkins V, an applicant must meet at least one of the following requirements:

(a) The applicant is—

(1) An LEA with an urban-centric district locale code of 32, 33, 41, 42, or 43, as determined by the Secretary;

(2) An IHE primarily serving one or more areas served by an LEA with an urban-centric district locale code of 32, 33, 41, 42, or 43, as determined by the Secretary;

(3) A consortium of such LEAs or such IHEs described in clause (1) or (2), above;

(4) An educational service agency or a nonprofit organization in partnership with such an LEA or such an IHE, in clause (1) or (2), above; or

(5) An applicant described in clause (1) or (2) in partnership with an SEA.

Note: For the purposes of meeting the statutory rural set aside, an applicant must meet the requirements as listed above and provide the necessary locale codes in its grant application. Applicants are encouraged to retrieve locale codes from the National Center for Education Statistics School District search tool (*https://nces.ed.gov/ccd/districtsearch/*), where districts can be looked up individually to retrieve locale codes.

3. a. *Cost Sharing or Matching:* Under section 114(e)(2) of Perkins V, each grant recipient must provide, from non-Federal sources (*e.g.,* State, local, or private sources), an amount equal to not less than 50 percent of funds provided under the grant, which may be provided in cash or through in-kind contributions, to carry out activities supported by the grant. Grantees must include a budget detailing the source of the matching funds and must provide evidence of their matching contributions for at least the first year of the grant in their grant applications, including a letter committing to the match from an individual who has authority to make legally binding commitments on behalf of the entity. Consistent with 2 CFR 200.306(b), any matching funds must be an allowable use of funds consistent with the cost principles detailed in Subpart E of the Uniform Guidance, and not included as a contribution for any other Federal award. Perkins V authorizes the Secretary to waive the matching requirement on a case-by-case basis upon demonstration of exceptional circumstances. The Secretary does not, as a general matter, anticipate waiving this requirement in the future. Furthermore, given the importance of matching funds to the long-term success of the project, eligible entities must identify appropriate matching funds in the proposed budget.

b. *Supplement-not-Supplant:* This program is subject to supplement-not-supplant funding requirements. In accordance with section 211(a) of Perkins V, funds under this program may not be used to supplant non-Federal funds used to carry out CTE activities. Because this program also has a match requirement, and consistent with 2 CFR 200.306(b)(4), any matching funds must be for allowable expenditures, and any funds or contributions used to meet the match requirement must supplement and not supplant non-Federal funds that, in the absence of the Perkins Innovation & Modernization funds, would otherwise support CTE activities. Further, the prohibition against supplanting also means that grantees will be required to use their negotiated restricted indirect cost rates under this program. (34 CFR 75.563)

4. *Subgrantees:* Under 34 CFR 75.708(b) and (c), a grantee under this competition may award subgrants to directly carry out project activities described in its application to the following types of entities: LEAs, Postsecondary Educational Institutions, or SEAs. The grantee may award subgrants to entities it has identified in an approved application.

IV. Application and Submission Information

1. *Application Submission Instructions:* Applicants are required to follow the Common Instructions for Applicants to Department of Education Discretionary Grant Programs, published in the **Federal Register** on February 13, 2019 (84 FR 3768), and available at *www.govinfo.gov/content/pkg/FR-2019-02-13/pdf/2019-02206.pdf,* which contain requirements and information on how to submit an application.

2. *Submission of Proprietary Information:* Given the types of projects that may be proposed in applications for the Perkins Innovation and Modernization competition, your application may include business information that you consider proprietary. In 34 CFR 5.11 we define ''business information'' and describe the process we use in determining whether any of that information is proprietary and, thus, protected from disclosure under Exemption 4 of the Freedom of Information Act (5 U.S.C. 552, as amended). Because we may make successful applications available to the public, you may wish to request confidentiality of business information. Consistent with Executive Order 12600, please designate in your application any information that you believe is exempt from disclosure under Exemption 4. In the appropriate Appendix section of your application, under ''Other Attachments Form,'' please list the page number or numbers on which we can

find this information. For additional information please see 34 CFR 5.11(c).

3. *Intergovernmental Review:* This competition is subject to Executive Order 12372 and the regulations in 34 CFR part 79. Information about Intergovernmental Review of Federal Programs under Executive Order 12372 is in the application package for this program.

4. *Funding Restrictions:* We reference regulations outlining funding restrictions in the *Applicable Regulations* section of this notice.

5. *Recommended Page Limit:* The application narrative is where you, the applicant, address the selection criteria that reviewers use to evaluate your application. We recommend that you (1) limit the application narrative to no more than 35 pages and (2) use the following standards:

- A ''page'' is 8.5″ x 11″, on one side only, with 1″ margins at the top, bottom, and both sides.
- Double-space (no more than three lines per vertical inch) all text in the application narrative, including titles, headings, footnotes, quotations, references, and captions, as well as all text in charts, tables, figures, and graphs.
- Use a font that is either 12 point or larger or no smaller than 10 pitch (characters per inch).
- Use one of the following fonts: Times New Roman, Courier, or Arial.

The recommended page limit does not apply to the cover sheet; the budget section, including the narrative budget justification; the assurances and certifications; or the one-page abstract, the resumes, the bibliography, or the letters of support. However, the recommended page limit does apply to all of the application narrative.

6. *Notice of Intent to Apply:* The Department will be able to review grant applications more efficiently if we know the approximate number of applicants that intend to apply. Therefore, we strongly encourage each potential applicant to notify us of their intent to submit an application. To do so, please email the program contact person listed under **FOR FURTHER INFORMATION CONTACT** with the subject line ''Intent to Apply,'' and include the applicant's name and a contact person's name and email address. Applicants that do not submit a notice of intent to apply may still apply for funding; applicants that do submit a notice of intent to apply are not bound to apply or bound by the information provided.

V. Application Review Information

1. *Selection Criteria:* The selection criteria for this program are from 34 CFR 75.210. The maximum score for all of the selection criteria is 100 points. The maximum score for each criterion is indicated in parentheses. In addressing the criteria, applicants are encouraged to make explicit connections to the priorities and requirements listed elsewhere in this notice. The selection criteria for this competition are as follows:

(a) *Significance (up to 20 points).*

In determining the significance of the project, the Secretary considers the following factors:

(1) The extent to which the proposed project involves the development or demonstration of promising new strategies that build on, or are alternatives to, existing strategies. (up to 10 points)

(2) The likelihood that the proposed project will result in system change or improvement. (up to 10 points)

(b) *Quality of the Project Design and Management Plan (up to 35 points).*

In determining the quality of the proposed project design and management plan, the Secretary considers the following factors:

(1) The extent to which the goals, objectives, and outcomes to be achieved by the proposed project are clearly specified and measurable. (up to 15 points)

(2) The adequacy of the management plan to achieve the objectives of the proposed project on time and within budget, including clearly defined responsibilities, timelines, and milestones for accomplishing project tasks. (up to 10 points)

(3) The potential and planning for the incorporation of project purposes, activities, or benefits into the ongoing work of the applicant beyond the end of the grant. (up to 10 points)

(c) *Adequacy of resources. (25 points)*

The Secretary considers the adequacy of resources for the proposed project. In determining the adequacy of resources for the proposed project, the Secretary considers—

(1) The extent to which the budget is adequate to support the proposed project. (up to 15 points)

(2) The relevance and demonstrated commitment of each partner in the proposed project to the implementation and success of the project. (up to 10 points)

(d) *Quality of the Project Evaluation. (20 points)*

In determining the quality of the project evaluation to be conducted, the Secretary considers the following factors:

(1) The extent to which the methods of evaluation include the use of objective Performance Measures that are clearly related to the intended outcomes of the project and will produce quantitative and qualitative data to the extent possible. (up to 5 points)

(2) The extent to which the methods of evaluation will provide performance feedback and permit periodic assessment of progress toward achieving intended outcomes. (up to 5 points)

(3) The extent to which the evaluation will provide guidance about effective strategies suitable for replication or testing in other settings. (up to 10 points)

Note: Applicants may wish to review the following technical assistance resources on evaluation:

(1) The What Works Clearinghouse (WWC) Procedures and Standards Handbooks: *https://ies.ed.gov/ncee/wwc/Handbooks*;

(2) ''Technical Assistance Materials for Conducting Rigorous Impact Evaluations'': *http://ies.ed.gov/ncee/projects/evaluationTA.asp*; and

(3) IES/NCEE Technical Methods papers: *http://ies.ed.gov/ncee/tech_methods/.*

In addition, applicants may view an optional webinar recording that was hosted by the Institute of Education Sciences, focused on more rigorous evaluation designs, discussing strategies for designing and executing experimental studies that meet WWC evidence standards without reservations. This webinar is available at: *http://ies.ed.gov/ncee/wwc/Multimedia.aspx?sid=18.*

2. *Review and Selection Process:* We remind potential applicants that in reviewing applications in any discretionary grant competition, the Secretary may consider, under 34 CFR 75.217(d)(3), the past performance of the applicant in carrying out a previous award, such as the applicant's use of funds, achievement of project objectives, and compliance with grant conditions. The Secretary may also consider whether the applicant failed to submit a timely performance report or submitted a report of unacceptable quality.

In addition, in making a competitive grant award, the Secretary requires various assurances including those applicable to Federal civil rights laws that prohibit discrimination in programs or activities receiving Federal financial assistance from the Department of Education (34 CFR 100.4, 104.5, 106.4, 108.8, and 110.23).

Before making awards, we will screen applications submitted in accordance with the requirements in this notice to determine whether applications have met eligibility and other requirements. This screening process may occur at

various stages of the process; applicants that are determined to be ineligible will not receive a grant, regardless of peer reviewer scores or comments.

Peer reviewers will read, prepare a written evaluation of, and score the assigned applications, using the selection criteria provided in this notice.

Additional factors we consider in selecting an application for an award are as follows:

(a) As required under section 114(e)(5) of Perkins, the Secretary shall award no less than 25 percent of the total available funds for any fiscal year to Eligible Entities, Eligible Institutions, or Eligible Recipients proposing to fund CTE activities that serve—

(1) An LEA with an urban-centric district locale code of 32, 33, 41, 42, or 43, as determined by the Secretary;

(2) An IHE primarily serving one or more areas served by such an LEA;

(3) A consortium of such LEAs or such IHEs;

(4) A partnership between—

(A) An educational service agency or a nonprofit organization; and

(B) Such an LEA or such an IHE; or

(5) A partnership between—

(A) A grant recipient described in clause (1) or (2); and

(B) An SEA.

(b) The Secretary shall reduce the amount of funds made available under such clause if the Secretary does not receive a sufficient number of applications of sufficient quality.

3. *Risk Assessment and Specific Conditions:* Consistent with 2 CFR 200.205, before awarding grants under this program the Department conducts a review of the risks posed by applicants. Under 2 CFR 3474.10, the Secretary may impose specific conditions and, in appropriate circumstances, high-risk conditions on a grant if the applicant or grantee is not financially stable; has a history of unsatisfactory performance; has a financial or other management system that does not meet the standards in 2 CFR part 200, subpart D; has not fulfilled the conditions of a prior grant; or is otherwise not responsible.

4. *Integrity and Performance System:* If you are selected under this competition to receive an award that over the course of the project period may exceed the simplified acquisition threshold (currently $250,000), under 2 CFR 200.205(a)(2), we must make a judgment about your integrity, business ethics, and record of performance under Federal awards—that is, the risk posed by you as an applicant—before we make an award. In doing so, we must consider any information about you that is in the integrity and performance system (currently referred to as the Federal Awardee Performance and Integrity Information System (FAPIIS)), accessible through the System for Award Management. You may review and comment on any information about yourself that a Federal agency previously entered and that is currently in FAPIIS.

Please note that, if the total value of your currently active grants, cooperative agreements, and procurement contracts from the Federal Government exceeds $10,000,000, the reporting requirements in 2 CFR part 200, Appendix XII, require you to report certain integrity information to FAPIIS semiannually. Please review the requirements in 2 CFR part 200, Appendix XII, if this grant plus all the other Federal funds you receive exceed $10,000,000.

VI. Award Administration Information

1. *Award Notices:* If your application is successful, we notify your U.S. Representative and U.S. Senators and send you a Grant Award Notification (GAN); or we may send you an email containing a link to access an electronic version of your GAN. We may notify you informally, also.

If your application is not evaluated or not selected for funding, we notify you.

2. *Administrative and National Policy Requirements:* We identify administrative and national policy requirements in the application package and reference these and other requirements in the *Applicable Regulations* section of this notice.

We reference the regulations outlining the terms and conditions of an award in the *Applicable Regulations* section of this notice and include these and other specific conditions in the GAN. The GAN also incorporates your approved application as part of your binding commitments under the grant.

3. *Open Licensing Requirements:* Unless an exception applies, if you are awarded a grant under this competition, you will be required to openly license to the public grant deliverables created in whole, or in part, with Department grant funds. When the deliverable consists of modifications to pre-existing works, the license extends only to those modifications that can be separately identified and only to the extent that open licensing is permitted under the terms of any licenses or other legal restrictions on the use of pre-existing works. Additionally, a grantee or subgrantee that is awarded competitive grant funds must have a plan to disseminate these public grant deliverables. This dissemination plan can be developed and submitted after your application has been reviewed and selected for funding. For additional information on the open licensing requirements please refer to 2 CFR 3474.20.

4. *Reporting:* (a) If you apply for a grant under this competition, you must ensure that you have in place the necessary processes and systems to comply with the reporting requirements in 2 CFR part 170 should you receive funding under the competition. This does not apply if you have an exception under 2 CFR 170.110(b).

(b) At the end of your project period, you must submit a final performance report, including financial information, as directed by the Secretary. If you receive a multiyear award, you must submit an annual performance report that provides the most current performance and financial expenditure information as directed by the Secretary under 34 CFR 75.118. The Secretary may also require more frequent performance reports under 34 CFR 75.720(c). For specific requirements on reporting, please go to *www.ed.gov/fund/grant/apply/appforms/appforms.html.*

(c) Under 34 CFR 75.250(b), the Secretary may provide a grantee with additional funding for data collection analysis and reporting. In this case, the Secretary establishes a data collection period.

5. *Performance Measures:* The overall purpose of the Perkins Innovation and Modernization Grant Program is to support and evaluate Evidence-Based and innovative strategies and activities to improve and modernize CTE and align workforce skills with labor market needs as part of the State plan. Each grantee will be required to report on student outcomes, as applicable, using the Perkins V section 113 core indicators of performance.

The core indicators of performance for CTE Concentrators at the secondary level are—

(a) The percentage of CTE Concentrators who graduate high school, as measured by the four-year adjusted cohort graduation rate (defined in section 8101 of the ESEA);

(b) The percentage of CTE Concentrators who graduate high school, as measured by extended-year adjusted cohort graduation rate (defined in section 8101 of the ESEA);

(c) CTE Concentrator proficiency in the challenging State academic standards adopted by the State under section 1111(b)(1) of the ESEA, as measured by the academic assessments in reading/language arts as described in section 1111(b)(2) of the ESEA;

(d) CTE Concentrator proficiency in the challenging State academic

standards adopted by the State under section 1111(b)(1) of the ESEA, as measured by the academic assessments in mathematics as described in section 1111(b)(2) of the ESEA;

(e) CTE Concentrator proficiency in the challenging State academic standards adopted by the State under section 1111(b)(1) of the ESEA, as measured by the academic assessments in science as described in section 1111(b)(2) of the ESEA;

(f) At least one of the following:

(i) The percentage of CTE Concentrators graduating from high school having attained a Recognized Postsecondary Credential;

(ii) The percentage of CTE Concentrators graduating from high school having attained postsecondary credits in the relevant CTE program or Program of Study earned through a Dual or Concurrent Enrollment Program or another Credit Transfer Agreement; or

(iii) The percentage of CTE Concentrators graduating from high school having participated in Work-Based learning;

(g) The percentage of CTE Concentrators who, in the second quarter after exiting from secondary education, are in postsecondary education or advanced training, are in military service or a service program that receives assistance under title I of the National and Community Service Act of 1990 (42 U.S.C. 12511 *et seq.*), are volunteers as described in section 5(a) of the Peace Corps Act (22 U.S.C. 2504(a)), or are employed; and

(h) The percentage of CTE Concentrators in CTE programs and Programs of Study that lead to nontraditional fields.

The core indicators of performance for CTE Concentrators at the postsecondary level are—

(a) The percentage of CTE Concentrators who, during the second quarter after program completion, remain enrolled in postsecondary education, are in advanced training, military service, or a service program that receives assistance under title I of the National and Community Service Act of 1990 (42 U.S.C. 12511 *et seq.*), are volunteers as described in section 5(a) of the Peace Corps Act (22 U.S.C. 2504(a)), or are placed or retained in employment;

(b) The percentage of CTE Concentrators who receive a Recognized Postsecondary Credential during participation in or within one year of program completion; and

(c) The percentage of CTE Concentrators in CTE programs and Programs of Study that lead to nontraditional fields.

Project-Specific Performance Measures:

Applicants must propose project-specific Performance Measures and Performance Targets consistent with the objectives of the proposed project.

Applications must provide the following information as directed under 34 CFR 75.110(b) and (c):

(a) Performance Measures. How each proposed Performance Measure would accurately measure the performance of the project and how the proposed Performance Measures would be consistent with the Performance Measures established for the program funding the competition.

(b) Baseline data.

(i) Why each proposed Baseline is valid; or

(ii) If the applicant has determined that there are no established Baseline data for a particular Performance Measure, an explanation of why there is no established Baseline and of how and when, during the project period, the applicant would establish a valid Baseline for the Performance Measure.

(c) Performance Targets. Why each proposed Performance Target is ambitious yet achievable compared to the Baseline for the Performance Measure and when, during the project period, the applicant would meet the Performance Target(s).

(d) Data collection and reporting.

(i) The data collection and reporting methods the applicant would use and why those methods are likely to yield reliable, valid, and meaningful performance data; and

(ii) The applicant's capacity to collect and report reliable, valid, and meaningful performance data, as evidenced by high-quality data collection, analysis, and reporting in other projects or research.

All grantees must submit an annual performance report with information that is responsive to these Performance Measures.

6. *Continuation Awards:* In making a continuation award under 34 CFR 75.253, the Secretary considers, among other things: Whether a grantee has made substantial progress in achieving the goals and objectives of the project; whether the grantee has expended funds in a manner that is consistent with its approved application and budget; and, if the Secretary has established performance measurement requirements, the performance targets in the grantee's approved application.

In making a continuation award, the Secretary also considers whether the grantee is operating in compliance with the assurances in its approved application, including those applicable to Federal civil rights laws that prohibit discrimination in programs or activities receiving Federal financial assistance from the Department (34 CFR 100.4, 104.5, 106.4, 108.8, and 110.23).

VII. Other Information

Accessible Format: Individuals with disabilities can obtain this document and a copy of the application package in an accessible format (*e.g.,* braille, large print, audiotape, or compact disc) on request to the program contact person listed under **FOR FURTHER INFORMATION CONTACT**. If you use a TDD or a TTY, call the FRS, toll free, at 1–800–877–8339.

Electronic Access to This Document: The official version of this document is the document published in the **Federal Register**. You may access the official edition of the **Federal Register** and the Code of Federal Regulations at *www.govinfo.gov.* At this site you can view this document, as well as all other documents of this Department published in the **Federal Register**, in text or Portable Document Format (PDF). To use PDF you must have Adobe Acrobat Reader, which is available free at the site.

You may also access documents of the Department published in the **Federal Register** by using the article search feature at *www.federalregister.gov.* Specifically, through the advanced search feature at this site, you can limit your search to documents published by the Department.

Dated: April 10, 2019.

Scott Stump,

Assistant Secretary for Career, Technical, and Adult Education.

[FR Doc. 2019–07456 Filed 4–12–19; 8:45 am]

BILLING CODE 4000–01–P

DEPARTMENT OF EDUCATION

[Docket No.: ED–2019–ICCD–0050]

Agency Information Collection Activities; Comment Request; Individuals With Disabilities Education Act (IDEA) State and Local Implementation Study 2019

AGENCY: Institute of Education Sciences (IES), Department of Education (ED).

ACTION: Notice.

SUMMARY: In accordance with the Paperwork Reduction Act of 1995, ED is proposing a new information collection.

DATES: Interested persons are invited to submit comments on or before June 14, 2019.

ADDRESSES: To access and review all the documents related to the information collection listed in this notice, please

use *http://www.regulations.gov* by searching the Docket ID number ED–2019–ICCD–0050. Comments submitted in response to this notice should be submitted electronically through the Federal eRulemaking Portal at *http://www.regulations.gov* by selecting the Docket ID number or via postal mail, commercial delivery, or hand delivery. If the regulations.gov site is not available to the public for any reason, ED will temporarily accept comments at *ICDocketMgr@ed.gov.* Please include the docket ID number and the title of the information collection request when requesting documents or submitting comments. *Please note that comments submitted by fax or email and those submitted after the comment period will not be accepted.* Written requests for information or comments submitted by postal mail or delivery should be addressed to the Director of the Information Collection Clearance Division, U.S. Department of Education, 550 12th Street SW, PCP, Room 9089, Washington, DC 20202–0023.

FOR FURTHER INFORMATION CONTACT: For specific questions related to collection activities, please contact Erica Johnson, 202–245–7676.

SUPPLEMENTARY INFORMATION: The Department of Education (ED), in accordance with the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3506(c)(2)(A)), provides the general public and Federal agencies with an opportunity to comment on proposed, revised, and continuing collections of information. This helps the Department assess the impact of its information collection requirements and minimize the public's reporting burden. It also helps the public understand the Department's information collection requirements and provide the requested data in the desired format. ED is soliciting comments on the proposed information collection request (ICR) that is described below. The Department of Education is especially interested in public comment addressing the following issues: (1) Is this collection necessary to the proper functions of the Department; (2) will this information be processed and used in a timely manner; (3) is the estimate of burden accurate; (4) how might the Department enhance the quality, utility, and clarity of the information to be collected; and (5) how might the Department minimize the burden of this collection on the respondents, including through the use of information technology. Please note that written comments received in response to this notice will be considered public records.

Title of Collection: Individuals with Disabilities Education Act (IDEA) State and Local Implementation Study 2019.

OMB Control Number: 1850–NEW.

Type of Review: A new information collection.

Respondents/Affected Public: State, Local, and Tribal Governments.

Total Estimated Number of Annual Responses: 1,153.

Total Estimated Number of Annual Burden Hours: 970.

Abstract: The data collection for the Individuals with Disabilities Education Act (IDEA) State and Local Implementation Study 2019 will examine how states, districts, and schools are identifying and supporting children and youth with disabilities. The study is one component of a Congressionally-mandated National Assessment of IDEA.

The purpose of this data collection is to develop an up-to-date national picture of how states, districts, and schools are implementing IDEA in order to provide ED, Congress, and other stakeholders with knowledge that can inform the next reauthorization of IDEA and, ultimately, how services are provided to children. This study of IDEA is necessary because a decade has passed since the previous IDEA national implementation study, and subsequent developments may have influenced the context and implementation of special education and early intervention.

The surveys will be administered in Fall 2019. All respondents will have the opportunity to complete an electronic survey (or paper survey, if preferred). The survey respondents are described briefly below:

State Surveys: The study team will administer three separate electronic surveys that focus on the Part C program for infants and toddlers (administered to the Part C infants and toddlers program coordinator), the Part B program for preschool-age children (administered to the Part B program for preschool-age children coordinator), and the Part B program for school-age children and youth (administered to the special education director). Three surveys are necessary because different state administrators are likely to oversee IDEA programs for children at those different age levels. The state surveys will be administered to the respondents in each of the 61 state-level entities that receive IDEA funding: all 50 states, the District of Columbia, 8 U.S. territories, the Bureau of Indian Education, and the Department of Defense Education Activity.

School District Surveys: The study team will administer two separate electronic surveys that focus on the Part B program for preschool-age children (administered to the Part B program for pre-school age children coordinator) and the IDEA Part B program for school-age children and youth (administered to the special education director). If a district does not have a Part B program for preschool-age children coordinator, the study team will work with the district to identify the survey's most appropriate respondent, likely someone in the pre-school special education leadership. Two surveys are necessary because different district staff members are likely to oversee IDEA programs for students at those different age levels. The study team will administer the Part B program for preschool-age children survey to a nationally representative sample of 602 school districts and the Part B program for school-age children survey to a nationally representative sample of 665 school districts. (Of the 665 districts selected overall, 63 do not offer pre-kindergarten instruction and are not eligible for the preschool-age district survey.)

School Surveys: A single school survey covers the Part B program for school-age children, the Part B program for preschool-age children, the transition from the Part C infants and toddlers program, and transition planning for secondary school students. The school survey will be administered to the school principal or lead special education staff. The study team will administer an electronic survey to a nationally representative sample of 2,750 schools from the 665 selected districts.

Dated: April 10, 2019.

Stephanie Valentine,

PRA Clearance Coordinator, Information Collection Clearance Program, Information Management Branch, Office of the Chief Information Officer.

[FR Doc. 2019–07424 Filed 4–12–19; 8:45 am]

BILLING CODE 4000–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

Combined Notice of Filings #1

Take notice that the Commission received the following electric corporate filings:

Docket Numbers: EC19–76–000.

Applicants: Osceola Windpower, LLC, Endeavor Wind I, LLC.

Description: Application for Authorization Under Section 203 of the Federal Power Act, et al. of Osceola Windpower, LLC, et al.

Filed Date: 4/5/19.

Accession Number: 20190405–5190.
Comments Due: 5 p.m. ET 4/26/19.

Take notice that the Commission received the following electric rate filings:

Docket Numbers: ER15–2594–007; ER17–953–003.
Applicants: GridLiance High Plains LLC.
Description: Compliance filing of GridLiance High Plains LLC.
Filed Date: 4/5/19.
Accession Number: 20190405–5197.
Comments Due: 5 p.m. ET 4/26/19.

Docket Numbers: ER16–505–005.
Applicants: GridLiance High Plains LLC.
Description: Compliance filing: GridLiance HP Compliance Filing ER16–505 to be effective 4/1/2016.
Filed Date: 4/5/19.
Accession Number: 20190405–5148.
Comments Due: 5 p.m. ET 4/26/19.

Docket Numbers: ER18–2401–002.
Applicants: PJM Interconnection, L.L.C.
Description: Compliance filing: Further Compliance Filing Concerning Order No. 844 to Amend Effective Date to be effective 1/1/2019.
Filed Date: 4/8/19.
Accession Number: 20190408–5081.
Comments Due: 5 p.m. ET 4/29/19.

Docket Numbers: ER19–1530–000.
Applicants: NextEra Energy Transmission West, LLC.
Description: § 205(d) Rate Filing: Horizon West Transmission, LLC Notice of Succession to be effective 3/13/2019.
Filed Date: 4/5/19.
Accession Number: 20190405–5147.
Comments Due: 5 p.m. ET 4/26/19.

Docket Numbers: ER19–1531–000.
Applicants: AEP Indiana Michigan Transmission Company, PJM Interconnection, L.L.C.
Description: § 205(d) Rate Filing: AEP Indiana Michigan submits three Contribution in Aid of Construction Agreement to be effective 3/27/2019.
Filed Date: 4/8/19.
Accession Number: 20190408–5098.
Comments Due: 5 p.m. ET 4/29/19.

Docket Numbers: ER19–1532–000.
Applicants: GenOn REMA, LLC.
Description: § 205(d) Rate Filing: Notice of Succession, Revisions to Reactive Service Rate Schedule to be effective 3/11/2019.
Filed Date: 4/8/19.
Accession Number: 20190408–5142.
Comments Due: 5 p.m. ET 4/29/19.

Docket Numbers: ER19–1533–000.
Applicants: GenOn Power Midwest, LP.
Description: Tariff Cancellation: Request for Administrative Cancellation and Request for Waivers to be effective 9/30/2012.
Filed Date: 4/8/19.
Accession Number: 20190408–5143.
Comments Due: 5 p.m. ET 4/29/19.

Docket Numbers: ER19–1534–000.
Applicants: GenOn Power Midwest, LP.
Description: § 205(d) Rate Filing: Notice of Succession and Revisions to Reactive Service Rate Schedule to be effective 3/8/2019.
Filed Date: 4/8/19.
Accession Number: 20190408–5145.
Comments Due: 5 p.m. ET 4/29/19.

Docket Numbers: ER19–1535–000.
Applicants: Lower Mount Bethel Energy, LLC.
Description: Tariff Cancellation: Notice of Cancellation to be effective 4/8/2019.
Filed Date: 4/8/19.
Accession Number: 20190408–5152.
Comments Due: 5 p.m. ET 4/29/19.

The filings are accessible in the Commission's eLibrary system by clicking on the links or querying the docket number.

Any person desiring to intervene or protest in any of the above proceedings must file in accordance with Rules 211 and 214 of the Commission's Regulations (18 CFR 385.211 and 385.214) on or before 5:00 p.m. Eastern time on the specified comment date. Protests may be considered, but intervention is necessary to become a party to the proceeding.

eFiling is encouraged. More detailed information relating to filing requirements, interventions, protests, service, and qualifying facilities filings can be found at: *http://www.ferc.gov/docs-filing/efiling/filing-req.pdf.* For other information, call (866) 208–3676 (toll free). For TTY, call (202) 502–8659.

Dated: April 8, 2019.

Nathaniel J. Davis, Sr.,

Deputy Secretary.

[FR Doc. 2019–07360 Filed 4–12–19; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

Combined Notice of Filings #1

Take notice that the Commission received the following electric corporate filings.

Docket Numbers: EC19–77–000.
Applicants: Public Service Company of Colorado, Twin Eagle Resource Management, LLC.
Description: Joint Application for Authorization Under Section 203 of the Federal Power Act, et al. of Twin Eagle Resource Management, LLC, et al.
Filed Date: 4/8/19.
Accession Number: 20190408–5194.
Comments Due: 5 p.m. ET 4/29/19.

Take notice that the Commission received the following electric rate filings.

Docket Numbers: ER18–228–002.
Applicants: Southwestern Public Service Company.
Description: Compliance filing: SPS Depreciation Settlement Compliance Filing ER18–228 to be effective 1/1/2018.
Filed Date: 4/8/19.
Accession Number: 20190408–5184.
Comments Due: 5 p.m. ET 4/29/19.

Docket Numbers: ER19–303–001.
Applicants: Duquesne Light Company.
Description: Compliance Filing of Duquesne Light Company.
Filed Date: 3/1/19.
Accession Number: 20190301–5399.
Comments Due: 5 p.m. ET 4/24/19.

Docket Numbers: ER19–478–001.
Applicants: FirstEnergy Solutions Corp.
Description: Compliance filing: Notice of Effective Date for Rate Schedule FERC No. 1 [ER19–1007] to be effective 3/29/2019.
Filed Date: 4/9/19.
Accession Number: 20190409–5000.
Comments Due: 5 p.m. ET 4/30/19.

Docket Numbers: ER19–1127–000.
Applicants: Calpine King City Cogen, LLC.
Description: Supplement to February 26, 2019 Calpine King City Cogen, LLC tariff filing.
Filed Date: 3/26/19.
Accession Number: 20190326–5256.
Comments Due: 5 p.m. ET 4/16/19.

Docket Numbers: ER19–1536–000.
Applicants: South Carolina Electric & Gas Company.
Description: Tariff Cancellation: Notice of Termination of WR Tariff (sections) to be effective 3/30/2010.
Filed Date: 4/8/19.
Accession Number: 20190408–5153.
Comments Due: 5 p.m. ET 4/29/19.

Docket Numbers: ER19–1537–000.
Applicants: AEP Texas Inc.
Description: § 205(d) Rate Filing: AEPTX-Taygete Energy Project II Interconnection Agreement to be effective 3/27/2019.
Filed Date: 4/9/19.
Accession Number: 20190409–5030.
Comments Due: 5 p.m. ET 4/30/19.

Docket Numbers: ER19–1538–000.
Applicants: NorthWestern Corporation.
Description: § 205(d) Rate Filing: SA 31 20th Rev—NITSA with Philips 66 Company to be effective 7/1/2019.

Filed Date: 4/9/19.

Accession Number: 20190409–5058.

Comments Due: 5 p.m. ET 4/30/19.

Docket Numbers: ER19–1539–000.

Applicants: Midcontinent Independent System Operator, Inc., Ameren Illinois Company.

Description: § 205(d) Rate Filing: 2019–04–09_SA 3295 Ameren-Walnut Ridge Wind Construction Agreement to be effective 4/10/2019.

Filed Date: 4/9/19.

Accession Number: 20190409–5077.

Comments Due: 5 p.m. ET 4/30/19.

Docket Numbers: ER19–1540–000.

Applicants: Midwest Power Company.

Description: Tariff Cancellation: Cancellation of Market Based Rate Tariff to be effective 4/10/2019.

Filed Date: 4/9/19.

Accession Number: 20190409–5084.

Comments Due: 5 p.m. ET 4/30/19.

Docket Numbers: ER19–1541–000.

Applicants: Midcontinent Independent System Operator, Inc.

Description: Pre-Arranged/Pre-Agreed (Stipulation and Offer of Settlement) Filing, et al. of the Midcontinent Independent System Operator, Inc., et al.

Filed Date: 4/9/19.

Accession Number: 20190409–5118.

Comments Due: 5 p.m. ET 4/30/19.

The filings are accessible in the Commission's eLibrary system by clicking on the links or querying the docket number.

Any person desiring to intervene or protest in any of the above proceedings must file in accordance with Rules 211 and 214 of the Commission's Regulations (18 CFR 385.211 and 385.214) on or before 5:00 p.m. Eastern time on the specified comment date. Protests may be considered, but intervention is necessary to become a party to the proceeding.

eFiling is encouraged. More detailed information relating to filing requirements, interventions, protests, service, and qualifying facilities filings can be found at: *http://www.ferc.gov/docs-filing/efiling/filing-req.pdf.* For other information, call (866) 208–3676 (toll free). For TTY, call (202) 502–8659.

Dated: April 9, 2019.

Nathaniel J. Davis, Sr.,

Deputy Secretary.

[FR Doc. 2019–07403 Filed 4–12–19; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. NJ19–10–000]

Notice of Filing: Western Area Power Administration

Take notice that on April 1, 2019, the Western Area Power Administration submitted its tariff filing: Open Access Transmission Tariff 2019–1–20190401 to be effective 6/3/2019.

Any person desiring to intervene or to protest this filing must file in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211, 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a notice of intervention or motion to intervene, as appropriate. Such notices, motions, or protests must be filed on or before the comment date. On or before the comment date, it is not necessary to serve motions to intervene or protests on persons other than the Applicant.

The Commission encourages electronic submission of protests and interventions in lieu of paper using the ''eFiling'' link at *http://www.ferc.gov.* Persons unable to file electronically should submit an original and 5 copies of the protest or intervention to the Federal Energy Regulatory Commission, 888 First Street NE, Washington, DC 20426.

This filing is accessible on-line at *http://www.ferc.gov,* using the ''eLibrary'' link and is available for review in the Commission's Public Reference Room in Washington, DC. There is an ''eSubscription'' link on the website that enables subscribers to receive email notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please email *FERCOnlineSupport@ferc.gov,* or call (866) 208–3676 (toll free). For TTY, call (202) 502–8659.

Comment Date: 5:00 p.m. Eastern Time on April 22, 2019.

Dated: April 9, 2019.

Kimberly D. Bose,

Secretary.

[FR Doc. 2019–07422 Filed 4–12–19; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. CP19–99–000]

Natural Gas Pipeline Company of America; Notice of Intent To Prepare an Environmental Assessment for the Proposed Gulf Coast Southbound Project and Request for Comments on Environmental Issues

The staff of the Federal Energy Regulatory Commission (FERC or Commission) will prepare an environmental assessment (EA) that will discuss the environmental impacts of the Gulf Coast Southbound Project involving construction and operation of facilities by Natural Gas Pipeline Company of America (Natural) in Victoria, Wharton, Harrison, Angelina, and Cass Counties, Texas. The Commission will use this EA in its decision-making process to determine whether the project is in the public convenience and necessity.

This notice announces the opening of the scoping process the Commission will use to gather input from the public and interested agencies about issues regarding the project. The National Environmental Policy Act (NEPA) requires the Commission to take into account the environmental impacts that could result from its action whenever it considers the issuance of a Certificate of Public Convenience and Necessity. NEPA also requires the Commission to discover concerns the public may have about proposals. This process is referred to as ''scoping.'' The main goal of the scoping process is to focus the analysis in the EA on the important environmental issues. By this notice, the Commission requests public comments on the scope of issues to address in the EA. To ensure that your comments are timely and properly recorded, please submit your comments so that the Commission receives them in Washington, DC on or before 5:00 p.m. Eastern Time on May 9, 2019.

You can make a difference by submitting your specific comments or concerns about the project. Your comments should focus on the potential environmental effects, reasonable alternatives, and measures to avoid or lessen environmental impacts. Your input will help the Commission staff determine what issues they need to evaluate in the EA. Commission staff will consider all filed comments during the preparation of the EA.

If you sent comments on this project to the Commission before the opening of this docket on February 28, 2019, you

will need to file those comments in Docket No. CP19–99–000 to ensure they are considered as part of this proceeding.

This notice is being sent to the Commission's current environmental mailing list for this project. State and local government representatives should notify their constituents of this proposed project and encourage them to comment on their areas of concern.

Natural provided landowners with a fact sheet prepared by the FERC entitled ''An Interstate Natural Gas Facility On My Land? What Do I Need To Know?'' This fact sheet addresses a number of typically asked questions, including the use of eminent domain and how to participate in the Commission's proceedings. It is also available for viewing on the FERC website (*www.ferc.gov*) at *https://www.ferc.gov/resources/guides/gas/gas.pdf.*

Public Participation

The Commission offers a free service called eSubscription which makes it easy to stay informed of all issuances and submittals regarding the dockets/projects to which you subscribe. These instant email notifications are the fastest way to receive notification and provide a link to the document files which can reduce the amount of time you spend researching proceedings. To sign up go to *www.ferc.gov/docs-filing/esubscription.asp.*

For your convenience, there are three methods you can use to submit your comments to the Commission. The Commission encourages electronic filing of comments and has staff available to assist you at (866) 208–3676 or *FercOnlineSupport@ferc.gov.* Please carefully follow these instructions so that your comments are properly recorded.

(1) You can file your comments electronically using the *eComment* feature, which is located on the Commission's website (*www.ferc.gov*) under the link to *Documents and Filings.* Using eComment is an easy method for submitting brief, text-only comments on a project;

(2) You can file your comments electronically by using the *eFiling* feature, which is located on the Commission's website (*www.ferc.gov*) under the link to *Documents and Filings.* With eFiling, you can provide comments in a variety of formats by attaching them as a file with your submission. New eFiling users must first create an account by clicking on ''*eRegister.*'' You will be asked to select the type of filing you are making; a comment on a particular project is considered a ''Comment on a Filing''; or

(3) You can file a paper copy of your comments by mailing them to the following address. Be sure to reference the project docket number (CP19–99–000) with your submission: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street NE, Room 1A, Washington, DC 20426.

Summary of the Proposed Project

The Project would consist of the addition of new compressor units at three existing compressor stations on Natural's system and modifications to auxiliary facilities at two existing compressor stations, all within the State of Texas. The Project would allow Natural to provide 300,000 dekatherms of southbound firm transportation capacity to Corpus Christi Liquefaction, L.L.C., and would include:

- Installation of one new electric motor driven compressor unit with a rating of 10,000 horsepower, and auxiliary facilities, including additional cooling equipment and a new filter separator, at existing Compressor Station 300 in Victoria County.
- Installation of one Solar Mars 100 turbine with a rating of 15,900 horsepower, and auxiliary facilities, including additional cooling equipment and replacement of two filter separators, at existing Compressor Station 301 in Wharton County.
- Installation of two Solar Titan 130 turbines with a rating of 23,470 horsepower each, and auxiliary facilities, including additional cooling equipment and filter separators, at existing Compressor Station 304 in Harrison County.
- Installation of an additional gas cooler and filter separator at existing Compressor Station 303 in Angelina County and at existing Compressor Station 394 in Cass County.

The general location of the project facilities is shown in appendix 1.[1]

Land Requirements for Construction

Construction of the Project would disturb about 147 acres of land, all within the fenced operational areas of existing natural gas compression facilities. Access to the facilities would be over Natural's existing access roads and no new land would need to be acquired for construction or operation of these facilities.

The EA Process

The EA will discuss impacts that could occur as a result of the construction and operation of the proposed project under these general headings:

- Geology and soils;
- water resources and wetlands;
- vegetation and wildlife;
- threatened and endangered species;
- cultural resources;
- socioeconomics;
- air quality and noise;
- public safety; and
- cumulative impacts

Commission staff will also evaluate reasonable alternatives to the proposed project or portions of the project, and make recommendations on how to lessen or avoid impacts on the various resource areas.

The EA will present Commission staffs' independent analysis of the issues. The EA will be available in electronic format in the public record through eLibrary[2] and the Commission's website (*https://www.ferc.gov/industries/gas/enviro/eis.asp*). If eSubscribed, you will receive instant email notification when the EA is issued. The EA may be issued for an allotted public comment period. Commission staff will consider all comments on the EA before making recommendations to the Commission. To ensure Commission staff have the opportunity to address your comments, please carefully follow the instructions in the Public Participation section, beginning on page 2.

With this notice, the Commission is asking agencies with jurisdiction by law and/or special expertise with respect to the environmental issues of this project to formally cooperate in the preparation of the EA.[3] Agencies that would like to request cooperating agency status should follow the instructions for filing comments provided under the Public Participation section of this notice.

Consultation Under Section 106 of the National Historic Preservation Act

In accordance with the Advisory Council on Historic Preservation's implementing regulations for section 106 of the National Historic Preservation Act, the Commission is using this notice to initiate consultation with the applicable State Historic Preservation Office, and to solicit their views and those of other government

[1] The appendices referenced in this notice will not appear in the **Federal Register**. Copies of appendices were sent to all those receiving this notice in the mail and are available at *www.ferc.gov* using the link called ''eLibrary'' or from the Commission's Public Reference Room, 888 First Street NE, Washington, DC 20426, or call (202) 502–8371.

[2] For instructions on connecting to eLibrary, refer to page 5 of this notice.

[3] The Council on Environmental Quality regulations addressing cooperating agency responsibilities are at Title 40, Code of Federal Regulations, Part 1501.6.

agencies, interested Indian tribes, and the public on the project's potential effects on historic properties.[4] The EA for this project will document findings on the impacts on historic properties and summarize the status of consultations under section 106.

Environmental Mailing List

The environmental mailing list includes federal, state, and local government representatives and agencies; elected officials; environmental and public interest groups; Native American Tribes; other interested parties; and local newspapers. This list also includes all affected landowners (as defined in the Commission's regulations) those who own homes within certain distances of aboveground facilities, and anyone who submits comments on the project. Commission staff will update the environmental mailing list as the analysis proceeds to ensure that Commission notices related to this environmental review are sent to all individuals, organizations, and government entities interested in and/or potentially affected by the proposed project.

If the Commission issues the EA for an allotted public comment period, a *Notice of Availability* of the EA will be sent to the environmental mailing list and will provide instructions on how to access the electronic document on the FERC's website (*www.ferc.gov*). If you need to make changes to your name/address, or if you would like to remove your name from the mailing list, please return the attached ''Mailing List Update Form'' (appendix 2).

Additional Information

Additional information about the project is available from the Commission's Office of External Affairs, at (866) 208–FERC, or on the FERC website at *www.ferc.gov* using the eLibrary link. Click on the eLibrary link, click on ''General Search'' and enter the docket number in the ''Docket Number'' field, excluding the last three digits (*i.e.,* CP19–99). Be sure you have selected an appropriate date range. For assistance, please contact FERC Online Support at *FercOnlineSupport@ferc.gov* or (866) 208–3676, or for TTY, contact (202) 502–8659. The eLibrary link also provides access to the texts of all formal documents issued by the Commission, such as orders, notices, and rulemakings.

Public sessions or site visits will be posted on the Commission's calendar located at *www.ferc.gov/EventCalendar/EventsList.aspx* along with other related information.

Dated: April 9, 2019.

Kimberly D. Bose,

Secretary.

[FR Doc. 2019–07419 Filed 4–12–19; 8:45 am]

BILLING CODE 6717–01–P

[4] The Advisory Council on Historic Preservation's regulations are at Title 36, Code of Federal Regulations, Part 800. Those regulations define historic properties as any prehistoric or historic district, site, building, structure, or object included in or eligible for inclusion in the National Register of Historic Places.

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. IC19–8–000]

Commission Information Collection Activities Consolidated Comment Request; Extension (FERC–606 and FERC–607)

AGENCY: Federal Energy Regulatory Commission, DOE.

ACTION: Notice of information collection and request for comments.

SUMMARY: In compliance with the requirements of the Paperwork Reduction Act of 1995, the Federal Energy Regulatory Commission (Commission or FERC) is soliciting public comment on the currently approved information collection FERC–606, (Notification of Request for Federal Authorization and Requests for Further Information), and FERC–607, (Report on Decision or Action on Request for Federal Authorization) and submitting the information collections to the Office of Management and Budget (OMB) for review. Any interested person may file comments directly with OMB and should address a copy of those comments to the Commission as explained below. On February 8, 2019, the Commission published a Notice in the **Federal Register** in Docket No. IC19–8–000 requesting public comments. The Commission received no public comments and is noting that in the related submittal to OMB.

DATES: Comments on the collection of information are due May 15, 2019.

ADDRESSES: Comments filed with OMB, identified by OMB Control No. 1902–0241, should be sent via email to the Office of Information and Regulatory Affairs: *oira_submission@omb.gov.* Attention: Federal Energy Regulatory Commission Desk Officer.

A copy of the comments should also be sent to the Commission, in Docket No. IC19–8–000, by either of the following methods:

- *eFiling at Commission's Website: http://www.ferc.gov/docs-filing/efiling.asp.*
- *Mail/Hand Delivery/Courier:* Federal Energy Regulatory Commission, Secretary of the Commission, 888 First Street NE, Washington, DC 20426.

Instructions: All submissions must be formatted and filed in accordance with submission guidelines at: *http://www.ferc.gov/help/submission-guide.asp.* For user assistance, contact FERC Online Support by email at *ferconlinesupport@ferc.gov,* or by phone at: (866) 208–3676 (toll-free), or (202) 502–8659 for TTY.

Docket: Users interested in receiving automatic notification of activity in this docket or in viewing/downloading comments and issuances in this docket may do so at *http://www.ferc.gov/docs-filing/docs-filing.asp.*

FOR FURTHER INFORMATION CONTACT: Ellen Brown may be reached by email at *DataClearance@FERC.gov,* telephone at (202) 502–8663, and fax at (202) 273–0873.

SUPPLEMENTARY INFORMATION:

Title: FERC–606, Notification of Request for Federal Authorization and Requests for Further Information; FERC–607, Report on Decision or Action on Request for Federal Authorization.

OMB Control No.: 1902–0241.

Type of Request: Three-year extension of these information collection requirements for all collections described below with no changes to the current reporting requirements. Please note that each collection is distinct from the other.

Abstract: FERC–606 requires agencies and officials responsible for issuing, conditioning, or denying requests for federal authorizations necessary for a proposed natural gas project to report to the Commission regarding the status of an authorization request. This reporting requirement is intended to allow agencies to assist the Commission to make better informed decisions in establishing due dates for agencies' decisions. FERC–607 requires agencies or officials to submit to the Commission a copy of a decision or action on a request for federal authorization and an accompanying index to the documents and materials relied on in reaching a conclusion.

The information collections can neither be discontinued nor collected less frequently because of statutory requirements. The consequences of not collecting this information are that the Commission would be unable to fulfill its statutory mandate under the Energy Policy Act of 2005 to:

• Establish a schedule for agencies to review requests for federal authorizations required for a project, and

• Compile a record of each agency's decision, together with the record of the Commission's decision, to serve as a consolidated record for the purpose of appeal or review, including judicial review.

Type of Respondent: Agencies with federal authorization responsibilities.

Estimate of Annual Burden:[1] The Commission estimates the annual public reporting burden and cost[2] (rounded) for the information collection as follows:

FERC–606 (NOTIFICATION OF REQUEST FOR FEDERAL AUTHORIZATION AND REQUESTS FOR FURTHER INFORMATION), AND FERC–607 (REPORT ON DECISION OR ACTION ON REQUEST FOR FEDERAL AUTHORIZATION)

	Number of respondents (1)	Annual number of responses per respondent (2)	Total number of responses (1) * (2) = (3)	Average burden hours & cost per response (4)	Total annual burden hours & total annual cost (3) * (4) = (5)	Cost per respondent ($) (5) ÷ (1) × (2)
FERC–606	6	1	6	4 hrs.; $316	24 hrs.; $1,896	$316
FERC–607	1	1	1	1 hr.; $79	1 hr.; $79	79
Total	7		7		25 hrs.; $1,975	

Comments: Comments are invited on: (1) Whether the collections of information are necessary for the proper performance of the functions of the Commission, including whether the information will have practical utility; (2) the accuracy of the agency's estimates of the burden and cost of the collections of information, including the validity of the methodology and assumptions used; (3) ways to enhance the quality, utility and clarity of the information collections; and (4) ways to minimize the burden of the collections of information on those who are to respond, including the use of automated collection techniques or other forms of information technology.

Dated: April 9, 2019.

Kimberly D. Bose,

Secretary.

[FR Doc. 2019–07420 Filed 4–12–19; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. ER19–1527–000]

Supplemental Notice That Initial Market-Based Rate Filing Includes Request for Blanket Section 204 Authorization: SmartestEnergy US LLC

This is a supplemental notice in the above-referenced proceeding of SmartestEnergy US LLC's application for market-based rate authority, with an accompanying rate tariff, noting that such application includes a request for blanket authorization, under 18 CFR part 34, of future issuances of securities and assumptions of liability.

Any person desiring to intervene or to protest should file with the Federal Energy Regulatory Commission, 888 First Street NE, Washington, DC 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). Anyone filing a motion to intervene or protest must serve a copy of that document on the Applicant.

Notice is hereby given that the deadline for filing protests with regard to the applicant's request for blanket authorization, under 18 CFR part 34, of future issuances of securities and assumptions of liability, is April 29, 2019.

The Commission encourages electronic submission of protests and interventions in lieu of paper, using the FERC Online links at *http://www.ferc.gov.* To facilitate electronic service, persons with internet access who will eFile a document and/or be listed as a contact for an intervenor must create and validate an eRegistration account using the eRegistration link. Select the eFiling link to log on and submit the intervention or protests.

Persons unable to file electronically should submit an original and 5 copies of the intervention or protest to the Federal Energy Regulatory Commission, 888 First Street NE, Washington, DC 20426.

The filings in the above-referenced proceeding are accessible in the Commission's eLibrary system by clicking on the appropriate link in the above list. They are also available for electronic review in the Commission's Public Reference Room in Washington, DC. There is an eSubscription link on the website that enables subscribers to receive email notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please email *FERCOnlineSupport@ferc.gov.* or call (866) 208–3676 (toll free). For TTY, call (202) 502–8659.

Dated: April 9, 2019.

Nathaniel J. Davis, Sr.,

Deputy Secretary.

[FR Doc. 2019–07404 Filed 4–12–19; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

Combined Notice of Filings

Take notice that the Commission has received the following Natural Gas Pipeline Rate and Refund Report filings:

Filings Instituting Proceedings

Docket Numbers: RP19–1109–000.

Applicants: GenOn Wholesale Generation, LP, Entergy Mississippi, LLC.

Description: Joint Petition for Limited Waivers of Capacity Release Regulations and Policies, et al. of GenOn Wholesale Generation, LP, et al. under RP19–1109.

Filed Date: 4/3/19.

Accession Number: 20190403–5112.

Comments Due: 5 p.m. ET 4/15/19.

[1] Burden is defined as the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. For further explanation of what is included in the information collection burden, refer to 5 CFR 1320.3.

[2] The estimates for cost per response are derived using the formula: Average Burden Hours per Response * 79.00 per hour = Average Cost per Response. The hourly cost figure comes from the FERC average salary plus benefits of $164,820 per year (or $79.00/hour). These estimates were updated in May 2018. This figure is being used because the staff thinks industry is similarly situated in terms of average hourly cost.

Docket Numbers: RP19–1073–001.
Applicants: Gulf Crossing Pipeline Company LLC.
Description: Tariff Amendment: Amendment to Docket No. RP19–1073–000 to be effective 4/1/2019.
Filed Date: 4/5/19.
Accession Number: 20190405–5177.
Comments Due: 5 p.m. ET 4/17/19.

Docket Numbers: RP19–1105–001.
Applicants: Texas Gas Transmission, LLC.
Description: Tariff Amendment: Amendment to Docket No. RP19–1105–000 to be effective 4/1/2019.
Filed Date: 4/8/19.
Accession Number: 20190408–5031.
Comments Due: 5 p.m. ET 4/22/19.

Docket Numbers: RP19–1112–000.
Applicants: NEXUS Gas Transmission, LLC.
Description: § 4(d) Rate Filing: Negotiated Rates—April 2019 Cleanup Filing to be effective 5/8/2019.
Filed Date: 4/8/19.
Accession Number: 20190408–5003.
Comments Due: 5 p.m. ET 4/22/19.

Docket Numbers: RP19–1113–000.
Applicants: Guardian Pipeline, L.L.C.
Description: § 4(d) Rate Filing: Update Non-Conforming and Negotiated Rate Agreements—April 2019 to be effective 4/8/2019.
Filed Date: 4/8/19
Accession Number: 20190408–5016.
Comments Due: 5 p.m. ET 4/22/19.

Docket Numbers: RP19–1114–000.
Applicants: Midwestern Gas Transmission Company.
Description: § 4(d) Rate Filing: Update Negotiated Rate Agreements—April 2019 to be effective 4/8/2019.
Filed Date: 4/8/19.
Accession Number: 20190408–5017.
Comments Due: 5 p.m. ET 4/22/19.

Docket Numbers: RP19–1115–000.
Applicants: ANR Pipeline Company.
Description: Compliance filing Request for Waiver—Gulf Coast Project.
Filed Date: 4/8/19.
Accession Number: 20190408–5185.
Comments Due: 5 p.m. ET 4/22/19.

The filings are accessible in the Commission's eLibrary system by clicking on the links or querying the docket number.

Any person desiring to intervene or protest in any of the above proceedings must file in accordance with Rules 211 and 214 of the Commission's Regulations (18 CFR 385.211 and 385.214) on or before 5:00 p.m. Eastern time on the specified comment date. Protests may be considered, but intervention is necessary to become a party to the proceeding.

eFiling is encouraged. More detailed information relating to filing requirements, interventions, protests, service, and qualifying facilities filings can be found at: *http://www.ferc.gov/docs-filing/efiling/filing-req.pdf.* For other information, call (866) 208–3676 (toll free). For TTY, call (202) 502–8659.

Dated: April 9, 2019.

Nathaniel J. Davis, Sr.,

Deputy Secretary.

[FR Doc. 2019–07402 Filed 4–12–19; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Project No. 2407–164]

Alabama Power Company; Notice of Application To Extend Temporary Variance, Soliciting Comments, Motions To Intervene, and Protests

Take notice that the following hydroelectric application has been filed with the Commission and is available for public inspection:

a. *Type of Application:* Extension of time for temporary variance of reservoir elevation levels.

b. *Project No.:* 2407–164.

c. *Date Filed:* March 27, 2019.

d. *Applicants:* Alabama Power Company.

e. *Name of Project:* Yates and Thurlow Hydroelectric Project.

f. *Location:* Tallapoosa River in Tallapoosa and Elmore counties, Alabama.

g. *Filed Pursuant to:* Federal Power Act, 16 U.S.C. 791a–825r.

h. *Applicant Contact:* Mr. James F. Crew, Hydro Services Manager, Alabama Power Company, 600 North 18th Street, 16N–8180, Birmingham, AL 35203, (205) 257–4265, *jfcrew@southernco.com.*

i. *FERC Contact:* Ms. Rebecca Martin, (202) 502–6012, *Rebecca.martin@ferc.gov.*

j. Deadline for filing comments, motions to intervene, and protests is April 24, 2019.

The Commission strongly encourages electronic filing. Please file comments, motions to intervene, and protests using the Commission's eFiling system at *http://www.ferc.gov/docs-filing/efiling.asp.* Commenters can submit brief comments up to 6,000 characters, without prior registration, using the eComment system at *http://www.ferc.gov/docs-filing/ecomment.asp.* You must include your name and contact information at the end of your comments. For assistance, please contact FERC Online Support at *FERCOnlineSupport@ferc.gov,* (866) 208–3676 (toll free), or (202) 502–8659 (TTY). In lieu of electronic filing, please send a paper copy to: Secretary, Federal Energy Regulatory Commission, 888 First Street NE, Washington, DC 20426. The first page of any filing should include docket number P–2407–164.

The Commission's Rules of Practice and Procedure require all intervenors filing documents with the Commission to serve a copy of that document on each person on the official service list for the project. Further, if an intervenor files comments or documents with the Commission relating to the merits of an issue that may affect the responsibilities of a particular resource agency, they must also serve a copy of the document on that resource agency.

k. *Description of Request:* The Alabama Power Company (licensee) requests Commission approval to extend its temporary variance from the normal reservoir elevations for the Thurlow impoundment as required by Article 402 of the license in order to replace the existing automatic spillway crest gates with Obermeyer gates at the project's Thurlow Dam. Article 402 requires, in part, the licensee to operate the project so the maximum drawdown at the Thurlow impoundment does not exceed 1 foot below the normal pool elevation of 288.7 feet mean sea level (msl). In an order issued June 12, 2018, the Commission approved a variance of 10 feet from the elevation requirements of Article 402, for the period of June 1, 2019 through October 31, 2019 so that the licensee could perform the work. In its current request, the licensee asks that the variance period be extended to May 1, 2019 through December 31, 2019. The licensee is requesting the extension because of potential delays caused by weather, longer than anticipated installation times, and as an alternative to having the work continue into another construction season.

l. *Locations of the Application:* A copy of the application is available for inspection and reproduction at the Commission's Public Reference Room, located at 888 First Street NE, Room 2A, Washington, DC 20426, or by calling (202) 502–8371. This filing may also be viewed on the Commission's website at *http://www.ferc.gov/docs-filing/elibrary.asp.* Enter the docket number excluding the last three digits in the docket number field to access the document. You may also register online at *http://www.ferc.gov/docs-filing/esubscription.asp* to be notified via email of new filings and issuances related to this or other pending projects. For assistance, call 1–866–208–3676 or email *FERCOnlineSupport@ferc.gov,* for

TTY, call (202) 502–8659. A copy is also available for inspection and reproduction at the address in item (h) above.

m. Individuals desiring to be included on the Commission's mailing list should so indicate by writing to the Secretary of the Commission.

n. *Comments, Motions to Intervene, or Protests:* Anyone may submit comments, a motion to intervene, or a protest in accordance with the requirements of Rules of Practice and Procedure, 18 CFR 385.210, .211, .214. In determining the appropriate action to take, the Commission will consider all protests or other comments filed, but only those who file a motion to intervene in accordance with the Commission's Rules may become a party to the proceeding. Any comments, motions to intervene, or protests must be received on or before the specified comment date for the particular application.

o. *Filing and Service of Responsive Documents:* Any filing must (1) bear in all capital letters the title ''COMMENTS'', ''PROTEST'', or ''MOTION TO INTERVENE,'' (2) set forth in the heading, the name of the applicant and the project number of the application to which the filing responds; (3) furnish the name, address, and telephone number of the person protesting or intervening; and (4) otherwise comply with the requirements of 18 CFR 385.2001 through 385.2005. All comments, motions to intervene, or protests must set forth their evidentiary basis and otherwise comply with the requirements of 18 CFR 4.34(b). Agencies may obtain copies of the application directly from the applicant. A copy of any protest or motion to intervene must be served upon each representative of the applicant specified in the particular application. If an intervener files comments or documents with the Commission relating to the merits of an issue that may affect the responsibilities of a particular resource agency, they must also serve a copy of the document on that resource agency. A copy of all other filings in reference to this application must be accompanied by proof of service on all persons listed in the service list prepared by the Commission in this proceeding, in accordance with 18 CFR 4.34(b) and 385.2010.

Dated: April 9, 2019.

Kimberly D. Bose,

Secretary.

[FR Doc. 2019–07423 Filed 4–12–19; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

Combined Notice of Filings

Take notice that the Commission has received the following Natural Gas Pipeline Rate and Refund Report filings:

Filings Instituting Proceedings

Docket Number: PR19–54–000.
Applicants: Impulsora Pipeline, LLC.
Description: Tariff filing per 284.123(b),(e)/: Baseline SOC to be effective 3/5/2019.
Filed Date: 4/4/19.
Accession Number: 201904045037.
Comments/Protests Due: 5 p.m. ET 4/25/19.

Docket Number: PR19–55–000.
Applicants: Columbia Gas of Ohio, Inc.
Description: Tariff filing per 284.123(b),(e)/: COH Rates effective April 1 2019 to be effective 4/1/2019.
Filed Date: 4/4/19.
Accession Number: 201904045141.
Comments/Protests Due: 5 p.m. ET 4/25/19.

Docket Numbers: RP19–1059–001.
Applicants: Texas Gas Transmission, LLC.
Description: Tariff Amendment: Amendment to RP19–1059–000 to be effective 4/1/2019.
Filed Date: 4/3/19.
Accession Number: 20190403–5024.
Comments Due: 5 p.m. ET 4/15/19.

Docket Numbers: RP19–992–001.
Applicants: Texas Gas Transmission, LLC.
Description: Tariff Amendment: Amendment to RP19–992–000 to be effective 4/1/2019.
Filed Date: 4/3/19.
Accession Number: 20190403–5025.
Comments Due: 5 p.m. ET 4/15/19.

Docket Numbers: RP19–1069–001.
Applicants: Gulf South Pipeline Company, LP.
Description: Tariff Amendment: Amendment to Docket No. RP19–1069–000 to be effective 4/1/2019.
Filed Date: 4/4/19.
Accession Number: 20190404–5012.
Comments Due: 5 p.m. ET 4/16/19.

Docket Numbers: RP19–1108–000.
Applicants: Wyckoff Gas Storage Company, LLC.
Description: Compliance filing Order 587–Y Compliance to be effective 8/1/2019.
Filed Date: 4/4/19.
Accession Number: 20190404–5062.
Comments Due: 5 p.m. ET 4/16/19.

Docket Numbers: RP19–1110–000.
Applicants: Tres Palacios Gas Storage LLC.
Description: § 4(d) Rate Filing: Tres Palacios Gas Storage LLC—Filing of Tariff Modifications to be effective 5/5/2019.
Filed Date: 4/4/19.
Accession Number: 20190404–5077.
Comments Due: 5 p.m. ET 4/16/19.

Docket Numbers: RP19–1111–000.
Applicants: Tennessee Gas Pipeline Company, L.L.C.
Description: § 4(d) Rate Filing: Spire MS SP347466 to be effective 4/4/2019.
Filed Date: 4/4/19.
Accession Number: 20190404–5210.
Comments Due: 5 p.m. ET 4/16/19.

Docket Numbers: RP19–351–002.
Applicants: Tennessee Gas Pipeline Company, L.L.C.
Description: Compliance filing 2019 Settlement RP19–351 to be effective 11/1/2019.
Filed Date: 4/4/19.
Accession Number: 20190404–5165.
Comments Due: 5 p.m. ET 4/16/19.

Docket Numbers: RP19–414–001.
Applicants: Northern Border Pipeline Company.
Description: Compliance filing Northern Border Amended Settlement Filing.
Filed Date: 4/4/19.
Accession Number: 20190404–5104.
Comments Due: 5 p.m. ET 4/16/19.

The filings are accessible in the Commission's eLibrary system by clicking on the links or querying the docket number.

Any person desiring to intervene or protest in any of the above proceedings must file in accordance with Rules 211 and 214 of the Commission's Regulations (18 CFR 385.211 and 385.214) on or before 5:00 p.m. Eastern time on the specified comment date. Protests may be considered, but intervention is necessary to become a party to the proceeding.

eFiling is encouraged. More detailed information relating to filing requirements, interventions, protests, service, and qualifying facilities filings can be found at: *http://www.ferc.gov/docs-filing/efiling/filing-req.pdf.* For other information, call (866) 208–3676 (toll free). For TTY, call (202) 502–8659.

Dated: April 8, 2019.

Nathaniel J. Davis, Sr.,

Deputy Secretary.

[FR Doc. 2019–07371 Filed 4–12–19; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. IC19–20–000]

Commission Information Collection Activities (FERC Form Nos. 6 and 6–Q); Comment Request; Extension

AGENCY: Federal Energy Regulatory Commission, DOE.

ACTION: Notice of information collections and request for comments.

SUMMARY: In compliance with the requirements of the Paperwork Reduction Act of 1995 (PRA), the Federal Energy Regulatory Commission (Commission or FERC) is soliciting public comment on the currently approved information collections, FERC Form Nos. 6 (Annual Report of Oil Pipeline Companies) and 6–Q (Quarterly Report of Oil Pipeline Companies).

DATES: Comments on the collections of information are due June 14, 2019.

ADDRESSES: You may submit comments (identified by Docket No. IC19–20–000) by either of the following methods:

- *eFiling at Commission's Website: http://www.ferc.gov/docs-filing/efiling.asp.*
- *Mail/Hand Delivery/Courier:* Federal Energy Regulatory Commission, Secretary of the Commission, 888 First Street NE, Washington, DC 20426.

Instructions: All submissions must be formatted and filed in accordance with submission guidelines at: *http://www.ferc.gov/help/submission-guide.asp.* For user assistance, contact FERC Online Support by email at *ferconlinesupport@ferc.gov,* or by phone at: (866) 208–3676 (toll-free), or (202) 502–8659 for TTY.

Docket: Users interested in receiving automatic notification of activity in this docket or in viewing/downloading comments and issuances in this docket may do so at *http://www.ferc.gov/docs-filing/docs-filing.asp.*

FOR FURTHER INFORMATION CONTACT: Ellen Brown may be reached by email at *DataClearance@FERC.gov,* telephone at (202) 502–8663, and fax at (202) 273–0873.

SUPPLEMENTARY INFORMATION:

Titles: FERC Form Nos. 6 (Annual Report of Oil Pipeline Companies) and 6–Q (Quarterly Report of Oil Pipeline Companies).

OMB Control Nos.: 1902–0022 (FERC Form No. 6) and 1902–0206 (FERC Form No. 6–Q).

Type of Respondent: Oil pipelines.

Type of Request: Three-year extension of FERC Form Nos. 6 and 6–Q information collections with no changes to the current reporting and recordkeeping requirements.[1]

Abstract: Under the Interstate Commerce Act (ICA),[2] the Commission is authorized and empowered to make investigations and to collect and record data to the extent the Commission may consider to be necessary or useful for the purpose of carrying out the provisions of the ICA. The Commission must ensure just and reasonable rates for transportation of crude oil and petroleum products by pipelines in interstate commerce.

FERC Form No. 6, Annual Report of Oil Pipeline Companies

In 1977, the Department of Energy Organization Act transferred to the Commission from the Interstate Commerce Commission (ICC) the responsibility to regulate oil pipeline companies. In accordance with the transfer of authority, the Commission was delegated the responsibility to require oil pipelines to file annual reports of information necessary for the Commission to exercise its statutory responsibilities.[3] The transfer included the ICC Form P, the predecessor to FERC Form No. 6.[4]

To reduce burden on industry, FERC Form No. 6 has three tiers of reporting requirements:

1. Each oil pipeline carrier whose annual jurisdictional operating revenues has been $500,000 or more for each of the three previous calendar years must file FERC Form No. 6 (18 CFR 357.2 (a)). Oil pipeline companies subject to the provisions of section 20 of the ICA must submit FERC Form No. 6–Q. 18 CFR 357.4(b)). Newly established entities must use projected data to determine whether FERC Form No. 6 must be filed.

2. Oil pipeline carriers exempt from filing FERC Form No. 6 whose annual jurisdictional operating revenues have been more than $350,000 but less than $500,000 for each of the three previous calendar years must prepare and file page 301, ''Operating Revenue Accounts (Account 600), and page 700, ''Annual cost of Service Based Analysis Schedule,'' of FERC Form No. 6. When submitting pages 301 and 700, each exempt oil pipeline carrier must include page 1 of FERC Form No. 6, the Identification and Attestation schedules (18 CFR 357.2 (a)(2)).

3. Oil pipeline carriers exempt from filing FERC Form No. 6 and pages 301 and whose annual jurisdictional operating revenues were $350,000 or less for each of the three previous calendar years must prepare and file page 700, ''Annual Cost of Service Based Analysis Schedule,'' of FERC Form No. 6. When submitting page 700, each exempt oil pipeline carrier must include page 1 of FERC Form No. 6, the Identification and Attestation schedule (18 CFR 357.2 (a)(3)).

The Commission uses the data in FERC Form Nos. 6 and 6–Q to perform audits and reviews on the financial condition of oil pipelines; assess energy markets; conduct oil pipeline rate proceedings and economic analysis; conduct research for use in administrative litigation; and administer the requirements of the ICA. Data from FERC Form No. 6 facilitates the calculation of the actual rate of return on equity for oil pipelines. The actual rate of return on equity is particularly useful information when evaluating a pipeline's rates.

The Commission also uses data on Page 301 of FERC Form No. 6 to compute annual charges which are then assessed against oil pipeline companies to recover the Commission's annual costs as mandated by Order No. 472. The annual charges are required by Section 3401 of the Omnibus Budget Reconciliation Act of 1986.

Furthermore, the majority of state regulatory commissions use FERC Form Nos. 6 and 6–Q and the Commission's Uniform System of Accounts (USofA) to satisfy their reporting requirements for those companies under their jurisdiction. In addition, the public uses the data in FERC Form Nos. 6 and 6–Q to assist in monitoring rates, the financial condition of the oil pipeline

[1] FERC Form Nos. 6 and 6–Q are part of the ''Forms Refresh'' effort, which is a separate activity and not addressed here. *See Revisions to the Filing Process for Commission Forms,* 166 FERC ¶ 61,027 (2019) (started in Docket No. AD15–11 and ongoing in Docket No. RM19–12). (OMB issued its decisions on the proposed changes in the Forms Refresh Notice of Proposed Rulemaking in Docket No. RM19–12 on March 14, 2019.) In addition, this submittal does not reflect Docket No. RM15–19 (*Petition for a Rulemaking of the Liquids Shippers Group, et. al,* (2015)) and Docket No. RM17–1 (*Revisions to Indexing Policies and Page 700 of FERC Form No. 6* (2016)).

[2] 49 U.S.C. Part 1, Section 20, 54 Stat. 916.

[3] Section 402(b) of the Department of Energy Organization Act (DOE Act), 42 U.S.C. 7172 provides that; ''[t]here are hereby transferred to, and vested in, the Commission all functions and authority of the Interstate Commerce Commission or any officer or component of such Commission where the regulatory function establishes rates or charges for the transportation of oil by pipeline or established the valuation of any such pipeline.''

[4] The ICC developed the Form P to collect information on an annual basis to enable it to carry out its regulation of oil pipeline companies under the Interstate Commerce Act. A comprehensive review of the reporting requirements for oil pipeline companies was performed on September 21, 1982, when the Commission issued Order 260 revising the former ICC Form P, ''Annual Report of Carriers by Pipeline'' and redesignating it as FERC Form No. 6, ''Annual Report of Oil Pipeline Companies''.

industry, and in assessing energy markets.

FERC Form No. 6–Q, Quarterly Financial Report of Oil Pipeline Companies

The Commission uses the information collected in FERC Form No. 6–Q to carry out its responsibilities in implementing the statutory provisions of the ICA to include the authority to prescribe rules and regulations concerning accounts, records, and memoranda, as necessary or appropriate. Financial accounting and reporting provides necessary information concerning a company's past performance and its future prospects. Without reliable financial statements prepared in accordance with the Commission's USofA and related regulations, it would be difficult for the Commission to accurately determine the costs that relate to a particular time period, service, or line of business.

The Commission uses data from FERC Form No. 6–Q to assist in: (1) Implementation of its financial audits and programs; (2) continuous review of the financial condition of regulated companies; (3) assessment of energy markets; (4) rate proceedings and economic analyses; and (5) research for use in litigation.

Financial information reported on the quarterly FERC Form No. 6–Q provides the Commission, as well as customers, investors and others, an important tool to help identify emerging trends and issues affecting jurisdictional entities within the energy industry. It also provides timely disclosures of the impacts that new accounting standards, or changes in existing standards, have on jurisdictional entities, as well as the economic effects of significant transactions, events, and circumstances. The reporting of this information by jurisdictional entities assists the Commission in its analysis of profitability, efficiency, risk, and in its overall monitoring.

FERC Form Nos. 6 and 6–Q

Estimates of Annual Burden [5] *and Cost:* [6]

	Number of respondents (1)	Annual number of responses per respondent (2)	Total number of responses (1) * (2) = (3)	Average burden hours & cost ($) per response (4)	Total annual burden hours & total annual cost ($) (3) * (4) = (5)	Cost per respondent ($) (5) ÷ (1)
FERC Form No. 6	244	1	244	161 hrs.; $12,719	39,284 hrs.; $3,103,436	$12,719
FERC Form No. 6–Q	244	3	732	150 hrs.; $11,850	109,800 hrs.; $8,674,200	35,550

Comments: Comments are invited on: (1) Whether the collections of information are necessary for the proper performance of the functions of the Commission, including whether the information will have practical utility; (2) the accuracy of the agency's estimates of the burden and cost of the collections of information, including the validity of the methodology and assumptions used; (3) ways to enhance the quality, utility and clarity of the information collections; and (4) ways to minimize the burden of the collections of information on those who are to respond, including the use of automated collection techniques or other forms of information technology.

Dated: April 9, 2019.

Kimberly D. Bose,

Secretary.

[FR Doc. 2019–07421 Filed 4–12–19; 8:45 am]

BILLING CODE 6717–01–P

ENVIRONMENTAL PROTECTION AGENCY

[EPA–HQ–OPP–2019–0161; FRL–9991–80]

FIFRA Scientific Advisory Panel; Notice of Public Meetings

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: There will be a 4-day, in-person public meeting of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Scientific Advisory Panel (SAP), augmented with additional experts to provide independent scientific advice to the EPA on proposed guidelines for Efficacy Testing of Topically Applied Pesticides Used Against Certain Ectoparasitic Pests on Pets. Preceding the in-person meeting, there will be a public half-day preparatory virtual meeting to consider the scope and clarity of the draft charge questions for this peer review.

DATES:

Meeting: The 4-day in-person public meeting will be held June 11 to 14, 2019, from 9:00 a.m. to approximately 5:00 p.m. (EDT). The date, time, and registration instructions for the preparatory virtual public meeting will be announced on the FIFRA SAP website (*http://www.epa.gov/sap*) by late-April. You may also subscribe to the following listserv for alerts when notices regarding this and other SAP-related activities are published: *https://public.govdelivery.com/accounts/USAEPAOPPT/subscriber/new?topic_id=USAEPAOPPT_101.*

Comments: The Agency encourages written comments and requests for oral comments be submitted on or before May 17, 2019. However, written comments and requests to make oral comments may be submitted until the date of the in-person meeting, but anyone submitting such comments and requests after May 17, 2019, should contact the Designated Federal Official (DFO) listed under **FOR FURTHER INFORMATION CONTACT**. For additional instructions, see Unit I.C. and Unit I.D. of the **SUPPLEMENTARY INFORMATION**.

Special accommodations: For information on access or services for individuals with disabilities, and to request accommodation of a disability, please contact the DFO listed under **FOR FURTHER INFORMATION CONTACT** at least 10 days prior to the meeting to give EPA as much time as possible to process your request.

ADDRESSES:

In-Person Meeting: This public meeting will be held at the EPA Conference Center, Lobby Level, One Potomac Yard (South Bldg.), 2777 S Crystal Dr., Arlington, VA 22202. This meeting may also be viewed via webcast. Please refer to the FIFRA SAP website at *https://www.epa.gov/sap* for information on how to access the webcasts. Please note that this webcast is a supplementary public process provided only for convenience. If difficulties arise resulting in webcasting

[5] ''Burden'' is the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. For further explanation of what is included in the information collection burden, refer to Title 5 Code of Federal Regulations 1320.3.

[6] The FERC 2018 average salary plus benefits for one FERC full-time equivalent (FTE) is $164,820/year (or $79.00/hour). Commission staff estimates that the industry's skill set (wages and benefits) for completing and filing FERC Form Nos. 6 and 6–Q are comparable to the Commission's skill set.

outages, the in-person meeting will continue as planned.

Webcast: The preparatory virtual meeting is open to the public and will be conducted via webcast using Adobe Connect and telephone. Registration is required to participate during the preparatory virtual meeting. Please refer to the FIFRA SAP website at *https://www.epa.gov/sap* for additional information including how to register.

Requests to present oral comments and requests for special accommodations. Submit such requests to the DFO listed under **FOR FURTHER INFORMATION CONTACT**.

Comments. Submit your comments, identified as docket identification (ID) number EPA–HQ–OPP–2019–0161, by one of the following methods:

- *Federal eRulemaking Portal: http://www.regulations.gov.* Follow the online instructions for submitting comments. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information that disclosure is restricted by statute.
- *Mail:* OPP Docket, Environmental Protection Agency Docket Center (EPA/DC), (28221T), 1200 Pennsylvania Ave. NW, Washington, DC 20460–0001.
- *Hand Delivery:* To make special arrangements for hand-delivery or delivery of boxed information, please follow the instructions at *http://www.epa.gov/dockets/contacts.html.* Additional instructions on commenting or visiting the docket, along with more information about dockets generally, is available at *http://www.epa.gov/dockets.*

FOR FURTHER INFORMATION CONTACT: Dr. Suhair Shallal, DFO, Office of Science Coordination and Policy (7201M), Environmental Protection Agency, 1200 Pennsylvania Ave. NW, Washington, DC 20460–0001; telephone number: 202–564–2057; email address: *shallal.suhair@epa.gov.*

SUPPLEMENTARY INFORMATION:

I. General Information

A. Does this action apply to me?

This action is directed to the public in general. This action may be of interest to persons who are or may be required to conduct testing of chemical substances regulated under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). Since other entities may also be interested in this guidance, the Agency has not attempted to describe all the specific entities that may be affected by this action.

B. What should I consider as I prepare my comments for EPA?

1. *Submitting CBI.* Do not submit CBI information to EPA through the website *regulations.gov* or by email. If your comments contain any information that you consider to be CBI or otherwise protected, please contact the DFO listed under **FOR FURTHER INFORMATION CONTACT** to obtain special instructions before submitting your comments.

2. *Tips for preparing your comments.* When preparing and submitting your comments, see Tips for Effective Comments at *http://www.epa.gov/dockets/comments.html.*

C. How may I participate in the in-person meeting?

You may participate in the in-person meeting by following the instructions in this unit. To ensure proper receipt by EPA, it is imperative that you identify docket ID number EPA–HQ–OPP–2019–0161 in the subject line on the first page of your request.

1. *Written comments.* The Agency encourages written comments be submitted, using the instructions in **ADDRESSES** and Unit I.B., on or before May 17, 2019, to provide FIFRA SAP the time necessary to consider and review the written comments. Written comments are accepted until the date of the meeting, but anyone submitting written comments after May 17, 2019, should contact the DFO listed under **FOR FURTHER INFORMATION CONTACT**. Anyone submitting written comments at the meeting should bring 30 copies for distribution to the FIFRA SAP by the DFO.

2. *Oral comments.* The Agency encourages each individual or group wishing to make brief oral comments to the FIFRA SAP during the in-person meeting to submit their request to the DFO listed under **FOR FURTHER INFORMATION CONTACT** on or before May 17, 2019, in order to be included on the meeting agenda. Requests to present oral comments will be accepted until the date of the in-person meeting and, to the extent that time permits, the Chair of the FIFRA SAP may permit the presentation of oral comments at the in-person meeting by interested persons who have not previously requested time. The request should identify the name of the individual making the presentation, the organization (if any) the individual will represent, and any requirements for audiovisual equipment. Oral comments before the FIFRA SAP during the in-person meeting are limited to approximately 5 minutes unless arrangements have been made prior to May 17, 2019. In addition, each speaker should bring 30 copies of his or her comments and presentation for distribution to the FIFRA SAP during the meeting by the DFO.

3. *Seating at the meeting.* Seating at the meeting will be open and on a first-come basis.

D. How may I participate in the preparatory virtual meeting?

Registration for the preparatory virtual meeting is required. To participate by listening or making a comment during this meeting, please visit:*https://www.epa.gov/sap* to register. Registration online will be confirmed by email that will include the webcast meeting Adobe Connect link and audio teleconference information.

1. *Written comments.* Written comments for the preparatory virtual meeting should be submitted, using the instructions in **ADDRESSES** and Unit I.B., on or before May 17, 2019.

2. *Oral comments.* Registration is required to participate in the preparatory virtual meeting. Please visit the FIFRA SAP website at: *https://www.epa.gov/sap* to register online. Each individual or group wishing to make brief oral comments to the FIFRA SAP during the preparatory virtual meeting should submit their request when registering online or with the DFO listed under **FOR FURTHER INFORMATION CONTACT** on or before noon May 17, 2019. Oral comments before the FIFRA SAP during the preparatory webcast are limited to approximately 5 minutes due to the time constraints of this webcast.

3. *Webcast.* The preparatory meeting will be webcast only. Please refer to the FIFRA SAP website at *https://www.epa.gov/sap* for information on how to access the webcast. Registration is required.

II. Background

A. Purpose of the FIFRA SAP

The FIFRA SAP serves as one of the primary scientific peer review mechanisms of EPA's Office of Chemical Safety and Pollution Prevention (OCSPP) and is structured to provide independent scientific advice, information and recommendations to the EPA Administrator on pesticides and pesticide-related issues as to the impact of regulatory actions on human health and the environment. The FIFRA SAP is a federal advisory committee established in 1975 under FIFRA that operates in accordance with requirements of the Federal Advisory Committee Act (5 U.S.C. Appendix). The FIFRA SAP is composed of a permanent panel consisting of seven members who are appointed by the EPA

Administrator from nominees provided by the National Institutes of Health (NIH) and the National Science Foundation (NSF). FIFRA established a Science Review Board (SRB) consisting of at least 60 scientists who are available to FIFRA SAP on an ad hoc basis to assist in reviews conducted by the FIFRA SAP. As a scientific peer review mechanism, the FIFRA SAP provides comments, evaluations, and recommendations to improve the effectiveness and quality of analyses made by Agency scientists. Members of FIFRA SAP are scientists who have sufficient professional qualifications, including training and experience, to provide expert advice and recommendation to the Agency.

B. Public Meeting

EPA-registered pesticide products are an important part of pest management programs to control invertebrate pests of public health importance including fleas, ticks, mosquitoes, and biting flies that can vector diseases to pets and humans. The Agency has multiple guidelines intended to assist in the development of appropriate protocols to test product efficacy. EPA Product Performance Test Guideline OPPTS 810.3300 Treatments to Control Pests of Humans and Pets published in March 1998. To increase clarity and consistency in efficacy testing and to include current scientific standards, the Agency is revising this product performance guideline.

The proposed guideline applies to products in any topically applied formulation, such as a spray, spot-on, collar, shampoo, or dust, if intended to be directly applied to pets for a pesticidal purpose such as to kill, repel, or control ticks, fleas, mosquitoes, and biting flies. This guideline does not apply to those products exempt from FIFRA Registration under 40 CFR 152.25, products applied to humans or livestock, or product performance testing described in other Agency guidelines. In addition to guidance for testing efficacy against fleas, ticks, mosquitoes, and biting flies, the proposed guideline also includes testing methods for evaluating efficacy under simulated environmental conditions. The Agency is seeking advice and recommendations from the SAP on scientific issues associated with the proposed revised EPA guideline. The Agency believes the current draft guideline represents the state of the science with regard to efficacy testing for these products. EPA is committed to reducing the use of animals in testing (*https://www.regulations.gov/document?D=EPA-HQ-OPP-2016-0093-0003*). However, at this time no reliable non-animal alternatives are available to avoid the use of animals for efficacy testing of fleas, ticks, mosquitoes and biting flies. As part of the SAP, EPA is soliciting comment from the panel on approaches that may, in the future, support the replacement or reduction of animal use in efficacy testing of ectoparasitic pests on pets.

C. FIFRA SAP Documents and Meeting Minutes

The EPA's background paper, the supporting materials, and draft charge/questions to the FIFRA SAP will be available by mid-April 2019. In addition, a list of candidates under consideration as prospective ad hoc panelists for this meeting will be available for a 15-day public comment period by early to mid-April 2019. The Agency will provide additional background documents (*e.g.,* the meeting agenda) as the materials become available. You may obtain electronic copies of these documents, and certain other related documents that might be available, at *http://www.regulations.gov* in docket EPA–HQ–OPP–2019–0161 and on the FIFRA SAP website at *https://www.epa.gov/sap.*

The FIFRA SAP will prepare meeting minutes summarizing its recommendations to the Agency approximately 90 days after the meeting. The meeting minutes will be posted on the FIFRA SAP website at *https://www.epa.gov/sap* or may be obtained from the OPP Docket at *http://www.regulations.gov.*

Authority: 5 U.S.C Appendix 2 *et seq.;* 7 U.S.C. 136 *et seq.;* 21 U.S.C. 301 *et seq.*

Dated: April 9, 2019.

Hayley Hughes,

Director, Office of Science Coordination and Policy.

[FR Doc. 2019–07418 Filed 4–12–19; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

[EPA–HQ–OW–2019–0143; FRL–9992–28–OW]

Proposed Information Collection Request; Comment Request; Treatment of Indian Tribes in a Similar Manner as States for Purposes of Section 303(d) of the Clean Water Act (Renewal)

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: The Environmental Protection Agency (EPA) is planning to submit an information collection request (ICR), ''Treatment of Indian Tribes in a Similar Manner as States for Purposes of Section 303(d) of the Clean Water Act (*Renewal*)'' (EPA ICR No. 2553.03 OMB Control No. 2040–0290), to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*). Before doing so, EPA is soliciting public comments on specific aspects of the proposed information collection as described below. This is a proposed extension of the ICR, which is currently approved through December 31, 2019. An Agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

DATES: Comments must be submitted on or before June 14, 2019.

ADDRESSES: Submit your comments, referencing Docket ID No. EPA–HQ–OW–2019–0143; FRL–9992–28–OW, online using *www.regulations.gov* (our preferred method) or by mail to: EPA Docket Center, Environmental Protection Agency, Mail Code 28221T, 1200 Pennsylvania Ave. NW, Washington, DC 20460.

EPA's policy is that all comments received will be included in the public docket without change including any personal information provided, unless the comment includes profanity, threats, information claimed to be Confidential Business Information, or other information whose disclosure is restricted by statute.

FOR FURTHER INFORMATION CONTACT: Carol Peterson, Watershed Assessment, Restoration, and Protection Division, Office of Wetlands, Oceans, and Watersheds (4503T), Environmental Protection Agency, 1200 Pennsylvania Ave. NW, Washington, DC 20460; telephone number: (202) 566–1304; fax number: (202) 566–1331; email address: *peterson.carol@epa.gov.*

SUPPLEMENTARY INFORMATION: Supporting documents that explain in detail the information that the EPA will be collecting are available in the public docket for this ICR. The docket can be viewed online at *www.regulations.gov* or in person at the EPA Docket Center, WJC West, Room 3334, 1301 Constitution Ave. NW, Washington, DC. The telephone number for the Docket Center is 202–566–1744. For additional information about EPA's public docket visit *http://www.epa.gov/dockets.*

Pursuant to Section 3506(c)(2)(A) of the Paperwork Reduction Act, EPA is soliciting comments and information to

enable it to: (i) Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the Agency, including whether the information will have practical utility; (ii) evaluate the accuracy of the Agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used; (iii) enhance the quality, utility, and clarity of the information to be collected; and (iv) minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated electronic, mechanical, or other technological collection techniques or other forms of information technology, *e.g.,* permitting electronic submission of responses. EPA will consider the comments received and amend the ICR as appropriate. The final ICR package will then be submitted to OMB for review and approval. At that time, EPA will issue another **Federal Register** notice to announce the submission of the ICR to OMB and the opportunity to submit additional comments to OMB.

Abstract: In 2016, EPA issued regulations establishing a process for federally recognized tribes to obtain treatment in a similar manner as states (TAS) for purposes of administrating the water quality restoration provisions of Clean Water Act (CWA) Section 303(d), including establishing lists of impaired waters on their reservations and developing total maximum daily loads (TMDLs). The CWA does not require tribes to administer the CWA Section 303(d) program. However, tribes seeking to be authorized must apply for and be found eligible for TAS through the procedures described in the regulations.

Section 303(d) of the CWA requires states, territories, and authorized tribes to identify and establish a priority ranking for waters that do not meet EPA-approved or promulgated water quality standards (WQS) following the implementation of technology-based controls. For waters so identified, Section 303(d) requires states, territories, and authorized tribes to establish TMDLs in accordance with their priority ranking for those pollutants the Administrator identified as suitable for TMDL calculation. A TMDL is the calculation and allocation to point and nonpoint sources of the maximum amount of a pollutant that a water body can receive and still meet applicable WQS, with a margin of safety.

Form Numbers: None.

Respondents/affected entities: Any federally recognized tribe with a reservation.

Respondent's obligation to respond: Voluntary.

Estimated number of respondents: Five.

Frequency of response: Once for initial TAS status, thereafter biennially for lists of impaired waters, and from time to time for TMDLs.

Total estimated burden: 34,757 hours (per year). Burden is defined at 5 CFR 1320.03(b).

Total estimated cost: $2,003,045 (per year). This action does not include annualized capital or operation & maintenance costs.

Changes in Estimates: There is a decrease of 55,147 hours in the total estimated respondent burden compared with the ICR currently approved by OMB. Similarly, there is a decrease of $2,182,387 in the total estimated cost compared with the ICR currently approved by OMB. Estimates decreased 61% and 52% respectively. These decreases are due to: (1) The estimated annual number of respondents decreasing from twelve to five; (2) new and better data that parses out labor and costs per activity; and (3) TAS application burden and cost estimates from post-final rule, *Revised Interpretation of Clean Water Act Tribal Provision (Final Interpretive Rule)* (the 2016 ICR for the CWA Section 303(d) Program (ICR No. 2553.02) used pre-final rule estimates).

Dated: April 8, 2019.

John Goodin,

Director, Office of Wetlands, Oceans, and Watersheds.

[FR Doc. 2019–07440 Filed 4–12–19; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

[EPA–HQ–OPP–2019–0039; FRL–9991–16]

Pesticide Product Registration; Receipt of Applications for New Active Ingredients

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice.

SUMMARY: EPA has received applications to register pesticide products containing active ingredients not included in any currently registered pesticide products. Pursuant to the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), EPA is hereby providing notice of receipt and opportunity to comment on these applications.

DATES: Comments must be received on or before May 15, 2019.

ADDRESSES: Submit your comments, identified by the Docket Identification (ID) Number and the File Symbol of interest as shown in the body of this document, by one of the following methods:

- *Federal eRulemaking Portal: http://www.regulations.gov.* Follow the online instructions for submitting comments. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute.
- *Mail:* OPP Docket, Environmental Protection Agency Docket Center (EPA/DC), (28221T), 1200 Pennsylvania Ave. NW, Washington, DC 20460–0001.
- *Hand Delivery:* To make special arrangements for hand delivery or delivery of boxed information, please follow the instructions at *http://www.epa.gov/dockets/contacts.html.*

Additional instructions on commenting or visiting the docket, along with more information about dockets generally, is available at *http://www.epa.gov/dockets.*

FOR FURTHER INFORMATION CONTACT: Michael Goodis, Registration Division (7505P), main telephone number: (703) 305–7090, email address: *RDFRNotices@epa.gov;* The mailing address for each contact person is: Office of Pesticide Programs, Environmental Protection Agency, 1200 Pennsylvania Ave. NW, Washington, DC 20460–0001. As part of the mailing address, include the contact person's name, division, and mail code. The division to contact is listed at the end of each pesticide petition summary.

SUPPLEMENTARY INFORMATION:

I. General Information

A. Does this action apply to me?

You may be potentially affected by this action if you are an agricultural producer, food manufacturer, or pesticide manufacturer. The following list of North American Industrial Classification System (NAICS) codes is not intended to be exhaustive, but rather provides a guide to help readers determine whether this document applies to them. Potentially affected entities may include:

- Crop production (NAICS code 111).
- Animal production (NAICS code 112).
- Food manufacturing (NAICS code 311).
- Pesticide manufacturing (NAICS code 32532).

B. What should I consider as I prepare my comments for EPA?

1. *Submitting CBI.* Do not submit this information to EPA through

regulations.gov or email. Clearly mark the part or all of the information that you claim to be CBI. For CBI information in a disk or CD–ROM that you mail to EPA, mark the outside of the disk or CD–ROM as CBI and then identify electronically within the disk or CD–ROM the specific information that is claimed as CBI. In addition to one complete version of the comment that includes information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket. Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.

2. *Tips for preparing your comments.* When preparing and submitting your comments, see the commenting tips at *http://www.epa.gov/dockets/comments.html.*

II. Registration Applications

EPA has received applications to register pesticide products containing active ingredients not included in any currently registered pesticide products. Pursuant to the provisions of FIFRA section 3(c)(4) (7 U.S.C. 136a(c)(4)), EPA is hereby providing notice of receipt and opportunity to comment on these applications. Notice of receipt of these applications does not imply a decision by the Agency on these applications.

III. New Active Ingredients

1. *File symbol:* 7969–UGN and 7969–UGE. *Docket ID number:* EPA–HQ–OPP–2018–0762. *Applicant:* BASF corporation, 26 Davis Drive, P.O. Box 13528, Research Triangle Park, NC 27709. *Product name:* Tirexor Herbicide Technical, and Tirexor Herbicide. *Active ingredient:* Herbicide—Trifludimoxazin at 99.2% (Tirexor Herbicide Technical) and 41.53% (Tirexor Herbicide). *Proposed use:* Almonds; Fruit, citrus, group 10–10; Fruit, pome, group 11–10; Grain, cereal, forage, fodder and straw, group 16; Grain, cereal, group 15; Nut, tree, group 14–12; Peanuts; Vegetable, foliage of legume, group 07; and Vegetable, legume, group 06. *Contact:* FHB.

2. *File symbol:* 91212–R. *Docket ID number:* EPA–HQ–OPP–2019–0072. *Applicant:* Emerald Kalama Chemical, LLC. *Product name:* Kalaguard SB. *Active ingredient:* Materials preservative—Sodium Benzoate at 100%. *Proposed use:* Will be used as a materials preservative in cleaning products at 3% active ingredient. *Contact:* AD.

Authority: 7 U.S.C. 136 *et seq.*

Dated: March 21, 2019.

Hamaad Syed,

Acting Director, Information Technology and Resources Management Division, Office of Pesticide Programs.

[FR Doc. 2019–07417 Filed 4–12–19; 8:45 am]

BILLING CODE 6560–50–P

FEDERAL COMMUNICATIONS COMMISSION

Open Commission Meeting, Friday, April 12, 2019

April 5, 2019.

The Federal Communications Commission will hold an Open Meeting on the subjects listed below on Friday, April 12, 2019 which is scheduled to commence at 10:30 a.m. in Room TW–C305, at 445 12th Street SW, Washington, DC.

Item No.	Bureau	Subject
1	Office of Economics & Analytics.	*Title:* Comment Sought on Competitive Bidding Procedures for Auction 103 (AU Docket 19–59). *Summary:* The Commission will consider a Public Notice seeking comment on procedures for the incentive auction of Upper Microwave Flexible Use Licenses in the Upper 37 GHz, 39 GHz, and 47 GHz Bands (Auction 103) for Next Generation Wireless Services.
2	Wireless Tele-Communication.	*Title:* Use of Spectrum Bands Above 24 GHz For Mobile Radio Services (GN Docket No. 14–177). *Summary:* The Commission will consider a Report and Order that would allow Fixed-Satellite Service earth stations to be individually licensed to transmit in the 50 GHz band and would establish a process for the Department of Defense to operate on a shared basis in the Upper 37 GHz band in limited circumstances.
3	Wireless Tele-Communication.	*Title:* Updating the Commission's Rule for Over-the-Air-Reception Devices (WT Docket No. 19–71). *Summary:* The Commission will consider a Notice of Proposed Rulemaking that proposes to modernize the Commission's rule for over-the-air-reception devices (OTARD) to facilitate the deployment of modern fixed wireless infrastructure.
4	Media	*Title:* Channel Lineup Requirements—Sections 76.1705 and 76.1700(a)(4) (MB Docket No. 18–92); Modernization of Media Regulation Initiative (MB Docket No. 17–105). *Summary:* The Commission will consider a Report and Order that would eliminate the requirement that cable operators maintain a channel lineup at their local office and would eliminate the requirement that certain cable operators make their channel lineup available via their online public inspection file.
5	Wireline Competition	*Title:* Petition of USTelecom for Forbearance Pursuant to 47 U.S.C. § 160(c) to Accelerate Investment in Broadband and Next-Generation Networks (WC Docket No. 18–141); 2000 Biennial Regulatory Review Separate Affiliate Requirements of Section 64.1903 of the Commission's Rules (CC Docket No. 00–175). *Summary:* The Commission will consider a Memorandum Opinion and Order that would grant forbearance to Bell Operating Companies and independent incumbent carriers from certain unnecessary and outdated structural and nondiscrimination requirements.
6	Wireline Competition	*Title:* Connect America Fund (WC Docket No. 10–90). *Summary:* The Commission will consider a Report and Order that would eliminate the high-cost program's rate floor rule and end the federal mandate that raises the telephone rates paid by many rural Americans.

* * * * *

The meeting site is fully accessible to people using wheelchairs or other mobility aids. Sign language interpreters, open captioning, and assistive listening devices will be provided on site. Other reasonable accommodations for people with disabilities are available upon request. In your request, include a description of the accommodation you will need and a way we can contact you if we need more information. Last minute requests will be accepted, but may be impossible to fill. Send an email to: *fcc504@fcc.gov*

or call the Consumer & Governmental Affairs Bureau at 202–418–0530 (voice), 202–418–0432 (TTY).

Additional information concerning this meeting may be obtained from the Office of Media Relations, (202) 418–0500; TTY 1–888–835–5322. Audio/Video coverage of the meeting will be broadcast live with open captioning over the internet from the FCC Live web page at *www.fcc.gov/live.*

For a fee this meeting can be viewed live over George Mason University's Capitol Connection. The Capitol Connection also will carry the meeting live via the internet. To purchase these services, call (703) 993–3100 or go to *www.capitolconnection.gmu.edu.*

Federal Communications Commission.

Katura Jackson,

Federal Register Liaison Officer, Office of the Secretary.

[FR Doc. 2019–07453 Filed 4–12–19; 8:45 am]

BILLING CODE 6712–01–P

FEDERAL COMMUNICATIONS COMMISSION

[OMB 3060–0292, OMB 3060–0743]

Information Collections Being Submitted for Review and Approval to the Office of Management and Budget

AGENCY: Federal Communications Commission.

ACTION: Notice and request for comments.

SUMMARY: As part of its continuing effort to reduce paperwork burdens, and as required by the Paperwork Reduction Act (PRA) of 1995, the Federal Communications Commission (FCC or the Commission) invites the general public and other Federal agencies to take this opportunity to comment on the following information collection. Comments are requested concerning: Whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; the accuracy of the Commission's burden estimate; ways to enhance the quality, utility, and clarity of the information collected; ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology; and ways to further reduce the information collection burden on small business concerns with fewer than 25 employees.

The Commission may not conduct or sponsor a collection of information unless it displays a currently valid Office of Management and Budget (OMB) control number. No person shall be subject to any penalty for failing to comply with a collection of information subject to the PRA that does not display a valid OMB control number.

DATES: Written comments should be submitted on or before May 15, 2019. If you anticipate that you will be submitting comments, but find it difficult to do so within the period of time allowed by this notice, you should advise the contacts listed below as soon as possible.

ADDRESSES: Direct all PRA comments to Nicholas A. Fraser, OMB, via email *Nicholas_A._Fraser@omb.eop.gov;* and to Nicole Ongele, FCC, via email *PRA@fcc.gov* and to *Nicole.Ongele@fcc.gov.* Include in the comments the OMB control number as shown in the **SUPPLEMENTARY INFORMATION** below.

FOR FURTHER INFORMATION CONTACT: For additional information or copies of the information collection, contact Nicole Ongele at (202) 418–2991. To view a copy of this information collection request (ICR) submitted to OMB: (1) Go to the web page *http://www.reginfo.gov/public/do/PRAMain*, (2) look for the section of the web page called ''Currently Under Review,'' (3) click on the downward-pointing arrow in the ''Select Agency'' box below the ''Currently Under Review'' heading, (4) select ''Federal Communications Commission'' from the list of agencies presented in the ''Select Agency'' box, (5) click the ''Submit'' button to the right of the ''Select Agency'' box, (6) when the list of FCC ICRs currently under review appears, look for the OMB control number of this ICR and then click on the ICR Reference Number. A copy of the FCC submission to OMB will be displayed.

SUPPLEMENTARY INFORMATION: As part of its continuing effort to reduce paperwork burdens, and as required by the Paperwork Reduction Act (PRA) of 1995 (44 U.S.C. 3501–3520), the Federal Communications Commission (FCC or the Commission) invites the general public and other Federal agencies to take this opportunity to comment on the following information collection.

Comments are requested concerning: Whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; the accuracy of the Commission's burden estimate; ways to enhance the quality, utility, and clarity of the information collected; ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology; and ways to further reduce the information collection burden on small business concerns with fewer than 25 employees.

OMB Control Number: 3060–0292.

Title: Section 69.605, Reporting and Distribution of Pool Access Revenues, Part 69—Access Charges.

Form Number: N/A.

Type of Review: Extension of a currently approved collection.

Respondents: Business or other for-profit.

Number of Respondents and Responses: 732 respondents; 8,773 responses.

Estimated Time per Response: 0.75 hours-1 hour.

Frequency of Response: Annual and monthly reporting requirements and third party disclosure requirement.

Obligation to Respond: Required to obtain or retain benefits. Statutory authority for this information collection is contained in 47 U.S.C. 154, 201, 202, 203, 205, 218 and 403 of the Communications Act of 1934, as amended.

Total Annual Burden: 6,580 hours.

Total Annual Cost: No cost.

Privacy Act Impact Assessment: No impact(s).

Nature and Extent of Confidentiality: There is no need for confidentiality.

Needs and Uses: Section 69.605 requires that access revenues and cost data shall be reported by participants in association tariffs to the association for computation of monthly pool revenues distributions. The association shall submit a report on or before February 1 of each calendar year describing the associations' cost study review process for the preceding calendar year as well as the results of that process. For any revisions to the cost study results made or recommended by the association that would change the respective carrier's calculated annual common line or traffic sensitive revenue requirement by ten percent or more, the report shall include the following information:

(1) Name of the carrier;

(2) A detailed description of the revisions;

(3) The amount of the revisions;

(4) The impact of the revisions on the carrier's calculated common line and traffic sensitive revenue requirements; and

(5) The carrier's total annual common line and traffic sensitive revenue requirement. The information is used to compute charges in tariffs for access service (or origination and termination)

and to compute revenue pool distributions. Neither process could be implemented without the information.

OMB Control Number: 3060–0743.

Title: Implementation of the Pay Telephone Reclassification and Compensation Provisions of the Telecommunications Act of 1996, CC Docket No. 96–128.

Form Number: N/A.

Type of Review: Extension of a currently approved collection.

Respondents: Business or other for-profit entities and state, local and tribal government.

Number of Respondents and Responses: 4,471 respondents; 10,071 responses.

Estimated Time per Response: 11.730414 hours.

Frequency of Response: On occasion, quarterly and monthly reporting requirements, recordkeeping requirement and third-party disclosure requirement.

Obligation to Respond: Required to obtain or retain benefits. Statutory authority for this information collection is contained in 47 U.S.C. 276 of the Telecommunications Act of 1996, as amended.

Total Annual Burden: 118,137 hours.

Total Annual Cost: No cost.

Privacy Act Impact Assessment: No impact(s).

Nature and Extent of Confidentiality: The Commission is not requesting that respondents submit confidential information to the FCC. If the Commission requests respondents to submit information which respondents believe is confidential, they may request confidential treatment of such information under 47 CFR 0.459 of the Commission's rules.

Needs and Uses: In CC Docket No. 96–128, the Commission promulgated rules and requirements implementing Section 276 of the Telecommunications Act of 1996. Among other things, the rules (1) establish fair compensation for every completed intrastate and interstate payphone call; (2) discontinue intrastate and interstate access charge payphone service elements and payments, and intrastate and interstate payphone subsidies from basic exchange services; and (3) adopt guidelines for use by the states in establishing public interest payphones to be located where there would otherwise not be a payphone.

The information collected under LEC Provision of Emergency Numbers to Carrier-Payers would able used to ensure that interexchange carriers, payphone service providers (''PSP'') LECs, and the states, comply with their obligations under the 1996 Act.

Federal Communications Commission.

Katura Jackson,

Federal Register Liaison Officer, Office of the Secretary.

[FR Doc. 2019–07454 Filed 4–12–19; 8:45 am]

BILLING CODE 6712–01–P

FEDERAL COMMUNICATIONS COMMISSION

[OMB 3060–1084 and OMB 3060–1088]

Information Collections Being Submitted for Review and Approval to the Office of Management and Budget

AGENCY: Federal Communications Commission.

ACTION: Notice and request for comments.

SUMMARY: As part of its continuing effort to reduce paperwork burdens, and as required by the Paperwork Reduction Act (PRA) of 1995, the Federal Communication Commission (FCC or Commission) invites the general public and other Federal agencies to take this opportunity to comment on the following information collections. Comments are requested concerning: Whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; the accuracy of the Commission's burden estimate; ways to enhance the quality, utility, and clarity of the information collected; ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology; and ways to further reduce the information collection burden on small business concerns with fewer than 25 employees.

The FCC may not conduct or sponsor a collection of information unless it displays a currently valid OMB control number. No person shall be subject to any penalty for failing to comply with a collection of information subject to the PRA that does not display a valid OMB control number.

DATES: Written comments should be submitted on or before May 15, 2019. If you anticipate that you will be submitting comments, but find it difficult to do so within the period of time allowed by this notice, you should advise the contacts below as soon as possible.

ADDRESSES: Direct all PRA comments to Nicholas A. Fraser, OMB, via email *Nicholas_A._Fraser@omb.eop.gov;* and to Cathy Williams, FCC, via email *PRA@fcc.gov* and to *Cathy.Williams@fcc.gov.* Include in the comments the OMB control number as shown in the **SUPPLEMENTARY INFORMATION** section below.

FOR FURTHER INFORMATION CONTACT: For additional information or copies of the information collection, contact Cathy Williams at (202) 418–2918. To view a copy of this information collection request (ICR) submitted to OMB: (1) Go to the web page *http://www.reginfo.gov/public/do/PRAMain,* (2) look for the section of the web page called ''Currently Under Review,'' (3) click on the downward-pointing arrow in the ''Select Agency'' box below the ''Currently Under Review'' heading, (4) select ''Federal Communications Commission'' from the list of agencies presented in the ''Select Agency'' box, (5) click the ''Submit'' button to the right of the ''Select Agency'' box, (6) when the list of FCC ICRs currently under review appears, look for the OMB control number of this ICR and then click on the ICR Reference Number. A copy of the FCC submission to OMB will be displayed.

SUPPLEMENTARY INFORMATION:

OMB Control Number: 3060–1084.

Title: Rules and Regulations Implementing Minimum Customer Account Record Exchange Obligations on All Local and Interexchange Carriers (CARE).

Form Number: N/A.

Type of Review: Extension of a currently approved collection.

Respondents: Business or other for-profit entities.

Number of Respondents and Responses: 2,989 respondents; 665,248 responses.

Estimated Time per Response: 1 minute (.017 hours) to 20 minutes (.33 hours).

Frequency of Response: Recordkeeping and annual reporting requirement.

Obligation to Respond: Required to obtain or retain benefits. The statutory authority for these information requirements are found in sections 1–4, 201, 202, 222, 258, and 303(r) of the Communications Act of 1934, as amended; 47 U.S.C. 151–154, 201, 202, 222, 258, and 303(r).

Total Annual Burden: 54,900 hours.

Total Annual Cost: None.

Nature and Extent of Confidentiality: Confidentiality is not an issue as individuals and/or households are not required to provide personally identifiable information.

Privacy Impact Assessment: No impact(s).

Needs and Uses: In the 2005 Report and Order and Further Notice of

Proposed Rulemaking, In the Matter of Rules and Regulations Implementing Minimum Customer Account Record Exchange Obligations on All Local and Interexchange Carriers (2005 Report and Order), CG Docket No. 02–386, FCC 05–29, which was released on February 25, 2005, the Commission adopted rules governing the exchange of customer account information between local exchange carriers (LECs) and interexchange carriers (IXCs). The Commission concluded that mandatory, minimum standards are needed in light of record evidence demonstrating that information needed by carriers to execute customer requests and properly bill customers is not being consistently provided by all LECs and IXCs. Specifically, the 2005 Report and Order requires LECs to supply customer account information to IXCs when: (1) The LEC places an end user on, or removes an end user from, an IXC's network; (2) an end user presubscribed to an IXC makes certain changes to her account information via her LEC; (3) an IXC requests billing name and address information for an end user who has usage on an IXC's network but for whom the IXC does not have an existing account; and (4) a LEC rejects an IXC-initiated PIC order. The 2005 Report and Order required IXCs to notify LECs when an IXC customer informs an IXC directly of the customer's desire to change IXCs. In the accompanying Further Notice of Proposed Rulemaking, the Commission sought comment on whether to require the exchange of customer account information between LECs. In December 2007, the Commission declined to adopt mandatory LEC-to-LEC data exchange requirements.

OMB Control Number: 3060–1088.

Title: Rules and Regulations Implementing the Telephone Consumer Protection Act (TCPA) of 1991, Report and Order and Third Order on Reconsideration, CG Docket No. 05–338, FCC 06–42.

Form Number: N/A.

Type of Review: Extension of a currently approved collection.

Respondents: Business or other for-profit entities; Not-for-profit institutions; and Individuals or households.

Number of Respondents and Responses: 5,340,000 respondents; 6,051,545 responses.

Estimated Time per Response: 3 minutes (.05 hours) to 30 minutes (.50 hours).

Frequency of Response: Annual, monthly, and on occasion reporting requirements; Recordkeeping; and Third party disclosure.

Obligation to Respond: Required to obtain or retain benefits. The authorizing statutes for this information collection are: Telephone Consumer Protection Act of 1991, Public Law 102–243. 105 Stat. 2394 (1991); Junk Fax Prevention Act, Public Law 109–21, 119 Stat. 359 (2005).

Total Annual Burden: 3,670,945 hours.

Total Annual Cost: $1,051,042.00.

Nature and Extent of Confidentiality: Confidentiality is an issue to the extent that individuals and households provide personally identifiable information, which is covered under the FCC's updated system of records notice (SORN), FCC/CGB–1, ''Informal Complaints, Inquiries and Requests for Dispute Assistance'', which became effective on September 24, 2014.

Privacy Impact Assessment: The Privacy Impact Assessment (PIA) for Informal Complaints and Inquiries was completed on June 28, 2007. It may be reviewed at *http://www.fcc.gov/omd/privacyact/Privacy_Impact_Assessment.html.* The Commission is in the process of updating the PIA to incorporate various revisions to it as a result of revisions to the SORN.

Needs and Uses: On April 5, 2006, the Commission adopted a Report and Order and Third Order on Reconsideration, In the Matter of Rules and Regulations Implementing the Telephone Consumer Protection Act of 1991; Junk Fax Prevention Act of 2005, CG Docket Nos. 02–278 and 05–338, FCC 06–42, which modified the Commission's facsimile advertising rules to implement the Junk Fax Prevention Act. The Report and Order and Third Order on Reconsideration contained information collection requirements pertaining to: (1) Opt-out Notice and Do-Not-Fax Requests Recordkeeping in which the rules require senders of unsolicited facsimile advertisements to include a notice on the first page of the facsimile that informs the recipient of the ability and means to request that they not receive future unsolicited facsimile advertisements from the sender; (2) Established Business Relationship Recordkeeping whereas the Junk Fax Prevention Act provides that the sender, *e.g.,* a person, business, or a nonprofit/institution, is prohibited from faxing an unsolicited advertisement to a facsimile machine unless the sender has an ''established business relationship'' (EBR) with the recipient; (3) Facsimile Number Recordkeeping in which the Junk Fax Prevention Act provides that an EBR alone does not entitle a sender to fax an advertisement to an individual or business. The fax number must also be provided voluntarily by the recipient; and (4) Express Invitation or Permission Recordkeeping where in the absence of an EBR, the sender must obtain the prior express invitation or permission from the consumer before sending the facsimile advertisement.

On October 14, 2008, the Commission released an Order on Reconsideration, FCC 08–239, addressing certain issues raised in petitions for reconsideration and/or clarification filed in response to the Commission's Report and Order and Third Order on Reconsideration (Junk Fax Order), FCC 06–42. In document FCC 08–239, the Commission clarified that: (1) Facsimile numbers compiled by third parties on behalf of the facsimile sender will be presumed to have been made voluntarily available for public distribution so long as they are obtained from the intended recipient's own directory, advertisement, or internet site; (2) Reasonable steps to verify that a recipient has agreed to make available a facsimile number for public distribution may include methods other than direct contact with the recipient; and (3) a description of the facsimile sender's opt-out mechanism on the first web page to which recipients are directed in the opt-out notice satisfies the requirement that such a description appear on the first page of the website.

The Commission believes these clarifications will assist senders of facsimile advertisements in complying with the Commission's rules in a manner that minimizes regulatory compliance costs while maintaining the protections afforded consumers under the Telephone Consumer Protection Act (TCPA).

Federal Communications Commission.

Katura Jackson,

Federal Register Liaison Officer, Office of the Secretary.

[FR Doc. 2019–07393 Filed 4–12–19; 8:45 am]

BILLING CODE 6712–01–P

FEDERAL COMMUNICATIONS COMMISSION

[OMB 3060–0775]

Information Collection Being Reviewed by the Federal Communications Commission

AGENCY: Federal Communications Commission.

ACTION: Notice and request for comments.

SUMMARY: As part of its continuing effort to reduce paperwork burdens, and as required by the Paperwork Reduction Act of 1995 (PRA), the Federal

Communications Commission (FCC or Commission) invites the general public and other Federal agencies to take this opportunity to comment on the following information collections. Comments are requested concerning: whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; the accuracy of the Commission's burden estimate; ways to enhance the quality, utility, and clarity of the information collected; ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology; and ways to further reduce the information collection burden on small business concerns with fewer than 25 employees.

The FCC may not conduct or sponsor a collection of information unless it displays a currently valid Office of Management and Budget (OMB) control number. No person shall be subject to any penalty for failing to comply with a collection of information subject to the PRA that does not display a valid OMB control number.

DATES: Written PRA comments should be submitted on or before June 14, 2019. If you anticipate that you will be submitting comments, but find it difficult to do so within the period of time allowed by this notice, you should advise the contact listed below as soon as possible.

ADDRESSES: Direct all PRA comments to Nicole Ongele, FCC, via email *PRA@fcc.gov* and to *Nicole.ongele@fcc.gov.*

FOR FURTHER INFORMATION CONTACT: For additional information about the information collection, contact Nicole Ongele, (202) 418–2991.

SUPPLEMENTARY INFORMATION:

OMB Control Number: 3060–0775.

Title: Section 64.1903 Obligations of All Incumbent Local Exchange Carriers.

Form Number: N/A.

Type of Review: Extension of a currently approved collection.

Respondents: Business or other for-profit.

Number of Respondents and Responses: 255 respondents; 255 responses.

Estimated Time per Response: 500—6,056 hours.

Frequency of Response: Recordkeeping requirements.

Obligation to Respond: Mandatory. Statutory authority for this information collection is contained in *47 U.S.C. 151, 152, 154, 201, 202, 251, 271, 272,* and *303(r)* of the Communications Act of 1934, as amended.

Total Annual Burden: 155,280 hours.

Total Annual Cost: No Cost.

Privacy Act Impact Assessment: No impact(s).

Nature and Extent of Confidentiality: There is no need for confidentiality.

Needs and Uses: The Commission will submit this collection to the OMB for approval of an extension in order to obtain the three year clearance from them. There is no change in the recordkeeping requirement. There is no change in the Commission's previous burden estimates. The Commission imposed recordkeeping requirements on independent local exchange carriers (LECs). Independent incumbent LECs wishing to offer international, interexchange services must comply with the requirements of the Competitive Carrier Fifth Report and Order, CC Docket Nos. 96–149 and 96–61. One of the requirements is that the independent incumbent LEC's international, interexchange affiliate (for facilities-based providers of international, interexchange services) must maintain books of account separate from such LEC's local exchange and other activities. See *47 CFR 64.1903* for the specific recordkeeping requirements.

This recordkeeping requirement is used by the Commission to ensure that independent incumbent LECs that provide international, interexchange services do so in compliance with the Communications Act, as amended, and with Commission policies and regulations.

Federal Communications Commission.

Katura Jackson,

Federal Register Liaison Officer, Office of the Secretary.

[FR Doc. 2019–07398 Filed 4–12–19; 8:45 am]

BILLING CODE 6712–01–P

FEDERAL COMMUNICATIONS COMMISSION

[OMB 3060–1078]

Information Collection Being Reviewed by the Federal Communications Commission

AGENCY: Federal Communications Commission.

ACTION: Notice and request for comments.

SUMMARY: As part of its continuing effort to reduce paperwork burdens, and as required by the Paperwork Reduction Act (PRA) of 1995, the Federal Communications Commission (FCC or Commission) invites the general public and other Federal agencies to take this opportunity to comment on the following information collections. Comments are requested concerning: Whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; the accuracy of the Commission's burden estimate; ways to enhance the quality, utility, and clarity of the information collected; ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology; and ways to further reduce the information collection burden on small business concerns with fewer than 25 employees.

The FCC may not conduct or sponsor a collection of information unless it displays a currently valid OMB control number. No person shall be subject to any penalty for failing to comply with a collection of information subject to the PRA that does not display a valid OMB control number.

DATES: Written PRA comments should be submitted on or before June 14, 2019. If you anticipate that you will be submitting comments, but find it difficult to do so within the period of time allowed by this notice, you should advise the contact listed below as soon as possible.

ADDRESSES: Direct all PRA comments to Cathy Williams, FCC, via email *PRA@fcc.gov* and to *Cathy.Williams@fcc.gov.*

FOR FURTHER INFORMATION CONTACT: For additional information about the information collection, contact Cathy Williams at (202) 418–2918.

SUPPLEMENTARY INFORMATION:

OMB Control Number: 3060–1078.

Title: Rules and Regulations Implementing the Controlling the Assault of Non-Solicited Pornography and Marketing Act of 2003, CG Docket No. 04–53. Form Number: N/A.

Type of Review: Extension of a currently approved collection.

Respondents: Business or other for-profit entities; Not-for-profit institutions; Individuals or households.

Number of Respondents and Responses: 1,908.572 respondents; 1,908,572 responses.

Estimated Time per Response: .5—1 hour (average per response).

Frequency of Response: Recordkeeping requirement; On occasion reporting requirements; Third party disclosure requirement.

Obligation to Respond: Required to obtain or retain benefits. The statutory authority for this information collection is the CAN–SPAM Act of 2003, 15

U.S.C. 7701–7713, Public Law 108–187, 117 Stat. 2719.

Total Annual Burden: 1,237,036 hours.

Total Annual Cost: $579,995.

Nature and Extent of Confidentiality: Confidentiality is an issue to the extent that individuals and households provide personally identifiable information, which is covered under the FCC's updated system of records notice (SORN), FCC/CGB–1, ''Informal Complaints, Inquiries and Requests for Dispute Assistance'', which became effective on September 24, 2014.

Privacy Impact Assessment: The Privacy Impact Assessment (PIA) for Informal Complaints and Inquiries was completed on June 28, 2007. It may be reviewed at *http://www.fcc.gov/omd/privacyact/Privacy_Impact_Assessment.html.* The Commission is in the process of updating the PIA to incorporate various revisions to it as a result of revisions to the SORN.

Needs and Uses: The reporting requirements included under this OMB Control Number 3060–1078 enable the Commission to collect information regarding violations of the Controlling the Assault of Non-Solicited Pornography and Marketing Act of 2003 (CAN–SPAM Act). This information is used to help wireless subscribers stop receiving unwanted commercial mobile services messages.

On August 12, 2004, the Commission released an *Order,* Rules and Regulations Implementing the Controlling the Assault of Non-Solicited Pornography and Marketing Act of 2003, CG Docket No. 04–53, FCC 04–194, published at 69 FR 55765, September 16, 2004, adopting rules to prohibit the sending of commercial messages to any address referencing an internet domain name associated with wireless subscribers' messaging services, unless the individual addressee has given the sender express prior authorization. The information collection requirements consist § 64.3100 (a)(4), (d), (e) and (f) of the Commission's rules.

Federal Communications Commission.

Katura Jackson,

Federal Register Liaison Officer, Office of the Secretary.

[FR Doc. 2019–07396 Filed 4–12–19; 8:45 am]

BILLING CODE 6712–01–P

FEDERAL DEPOSIT INSURANCE CORPORATION

Sunshine Act Meeting

TIME AND DATE: Pursuant to the provisions of the ''Government in the Sunshine Act'' (5 U.S.C. 552b), notice is hereby given that the Federal Deposit Insurance Corporation's Board of Directors will meet in open session at 10:00 a.m. on Tuesday, April 16, 2019.

PLACE: The meeting will be held in the Board Room located on the sixth floor of the FDIC Building located at 550 17th Street NW, Washington, DC.

This Board meeting will be Webcast live via the internet and subsequently made available on-demand approximately one week after the event. Visit *http://fdic.windrosemedia.com* to view the event. If you need any technical assistance, please visit our Video Help page at: *https://www.fdic.gov/video.html.*

The FDIC will provide attendees with auxiliary aids (*e.g.,* sign language interpretation) required for this meeting. Those attendees needing such assistance should call 703–562–2404 (Voice) or 703–649–4354 (Video Phone) to make necessary arrangements.

STATUS: The meeting will be open to the public.

MATTERS TO BE CONSIDERED: No substantive discussion of the following items is anticipated. These matters will be resolved with a single vote unless a member of the Board of Directors requests that an item be moved to the discussion agenda.

Disposition of Minutes of a Board of Directors' Meeting Previously Distributed.

Discussion of the following items is anticipated.

Memorandum and resolution re: Notice of Proposed Rulemaking—Proposed changes to Applicability Thresholds for Regulatory Capital Requirements for Certain U.S. Subsidiaries of Foreign Banking Organizations and Application of Liquidity Requirements to Foreign Banking Organizations, Certain U.S. Depository Institution Holding Companies, and Certain Depository Institution Subsidiaries.

Memorandum and resolution re: Notice of Proposed Rulemaking—Proposed Amendments to Resolution Plans.

Memorandum and resolution re: Advanced Notice of Proposed Rulemaking relating to Resolution Plans Required for Insured Depository Institutions with $50 Billion or More in Total Assets, and Extension of Insured Depository Institution Resolution Plan Submission Deadlines.

CONTACT PERSON FOR MORE INFORMATION: Requests for further information concerning the meeting may be directed to Mr. Robert E. Feldman, Executive Secretary of the Corporation, at 202–898–7043.

Dated at Washington, DC, on April 9, 2019.

Federal Deposit Insurance Corporation.

Robert E. Feldman,

Executive Secretary.

[FR Doc. 2019–07357 Filed 4–11–19; 4:15 pm]

BILLING CODE 6714–01–P

FEDERAL RESERVE SYSTEM

Formations of, Acquisitions by, and Mergers of Bank Holding Companies

The companies listed in this notice have applied to the Board for approval, pursuant to the Bank Holding Company Act of 1956 (12 U.S.C. 1841 *et seq.*) (BHC Act), Regulation Y (12 CFR part 225), and all other applicable statutes and regulations to become a bank holding company and/or to acquire the assets or the ownership of, control of, or the power to vote shares of a bank or bank holding company and all of the banks and nonbanking companies owned by the bank holding company, including the companies listed below.

The applications listed below, as well as other related filings required by the Board, are available for immediate inspection at the Federal Reserve Bank indicated. The applications will also be available for inspection at the offices of the Board of Governors. Interested persons may express their views in writing on the standards enumerated in the BHC Act (12 U.S.C. 1842(c)). If the proposal also involves the acquisition of a nonbanking company, the review also includes whether the acquisition of the nonbanking company complies with the standards in section 4 of the BHC Act (12 U.S.C. 1843). Unless otherwise noted, nonbanking activities will be conducted throughout the United States.

Unless otherwise noted, comments regarding each of these applications must be received at the Reserve Bank indicated or the offices of the Board of Governors not later than May 13, 2019.

A. Federal Reserve Bank of St. Louis (David L. Hubbard, Senior Manager) P.O. Box 442, St. Louis, Missouri 63166–2034. Comments can also be sent electronically to *Comments.applications@stls.frb.org:*

1. *Midland States Bancorp, Inc., Effingham, Illinois;* to merge with HomeStar Financial Group, Inc., Manteno, Illinois, and thereby indirectly acquire HomeStar Bank and Financial Services, Manteno, Illinois.

Board of Governors of the Federal Reserve System, April 10, 2019.

Ann E. Misback,

Secretary of the Board.

[FR Doc. 2019–07411 Filed 4–12–19; 8:45 am]

BILLING CODE P

DEPARTMENT OF DEFENSE

GENERAL SERVICES ADMINISTRATION

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

[OMB Control No. 9000–0045; Docket No. 2019–0003; Sequence No. 17]

Information Collection; Bid Guarantees, Performance and Payment Bonds, and Alternative Payment Protections

AGENCY: Department of Defense (DOD), General Services Administration (GSA), and National Aeronautics and Space Administration (NASA).

ACTION: Notice and request for comments.

SUMMARY: In accordance with the Paperwork Reduction Act of 1995 and the Office of Management and Budget (OMB) regulations, the FAR Council invites the public to comment upon a renewal concerning bid guarantees, performance and payment bonds, and alternative payment protections.

DATES: Submit comments on or before June 14, 2019.

ADDRESSES: The FAR Council invites interested persons to submit comments on this collection by either of the following methods:

- *Federal eRulemaking Portal:* This website provides the ability to type short comments directly into the comment field or attach a file for lengthier comments. Go to *http://www.regulations.gov* and follow the instructions on the site.
- *Mail:* General Services Administration, Regulatory Secretariat Division (MVCB), 1800 F Street NW, Washington, DC 20405. ATTN: Ms. Mandell/IC 9000–0045, Bid Guarantees, Performance and Payment Bonds, and Alternative Payment Protections.

Instructions: All items submitted must cite Information Collection 9000–0045, Bid Guarantees, Performance and Payment Bonds, and Alternative Payment Protections. Comments received generally will be posted without change to *http://www.regulations.gov,* including any personal and/or business confidential information provided. To confirm receipt of your comment(s), please check *www.regulations.gov,* approximately two-to-three days after submission to verify posting (except allow 30 days for posting of comments submitted by mail). This information collection is pending at the FAR Council. The Council will submit it to OMB within 60 days from the date of this notice.

FOR FURTHER INFORMATION CONTACT: Ms. Mahruba Uddowla, Procurement Analyst, at telephone 703–605–2868, or *mahruba.uddowla@gsa.gov.*

SUPPLEMENTARY INFORMATION:

A. Overview of Information Collection

Description of the Information Collection

1. *Type of Information Collection:* Revision/Renewal of a currently approved collection.

2. *Title of the Collection:* Bid Guarantees, Performance and Payment Bonds, and Alternative Payment Protections.

3. *Agency Form Number, if any:* Standard Forms (SF) 24, 25, 25A, 25B, 34, 35, 273, 274, 275, 1416, and 1418.

Solicitation of Public Comment

Written comments and suggestions from the public should address one or more of the following four points:

(1) Evaluate whether the collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;

(2) Evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;

(3) Enhance the quality, utility, and clarity of the information to be collected; and

(4) Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, *e.g.,* permitting electronic submission of responses.

B. Purpose

FAR Subparts 28.1 and 28.2; FAR clauses at 52.228–1, 52.228–2, 52.228–13, 52.228–14, 52.228–15, 52.228–16; and associated FAR standard forms implement the statutory requirements of the Miller Act (40 U.S.C. 3131 to 3134), which requires performance and payment bonds for any construction contract exceeding $150,000 unless it is impracticable to require bonds for work performed in a foreign country, or it is otherwise authorized by law. In addition, the regulations implement the notice to 40 U.S.C. 3132, entitled ''Alternatives to Payment Bonds Provided by the Federal Acquisition Regulation,'' which requires alternative payment protection for construction contracts that exceed $35,000 but do not exceed $150,000. Although not required by statute, under certain circumstances the FAR permits the Government to require bonds on other than construction contracts.

FAR clause 52.228–1, Bid Guarantee, as prescribed in FAR 28.101–2, requires the bidder to furnish a bid guarantee in the proper form and amount (SF 24, Bid Bond; SF 34, Annual Bid Bond).

FAR clause 52.228–2, Additional Bond Security, as prescribed in FAR 28.106–4(a), requires the Contractor to furnish additional bond security under certain circumstances. This clause is used both for construction and other than construction contracts. (SF 1415, Consent of Surety and Increase of Penalty).

FAR clause 52.228–13, Alternative Payment Protections, as prescribed in FAR 28.102–3(b), requires the Contractor to submit one of the payment protections listed in the clause by the Contracting Officer, in construction contracts greater than $35,000 but not exceeding $150,000.

FAR clause 52.228–14, Irrevocable Letter of Credit, as prescribed in FAR 28.204–4, requires offerors to provide certain information when they intend to use an irrevocable letter of credit (ILC) in lieu of a required bid bond, or to secure other types of required bonds such as performance and payment bonds. This clause is required in solicitations and contracts when a bid guarantee, or performance bonds, or performance and payment bonds are required.

FAR clause 52.228–15, Performance and Payment Bonds-Construction, as prescribed in FAR 28.102–3(a), requires the contractor to provide performance and payment bonds in construction contracts exceeding $150,000 (SF 25, Performance Bond; SF 25A, Payment Bond; SF 25B, Continuation Sheet (for SF's 24, 25, and 25A); SF 273, Reinsurance Agreement for a Miller Act Performance Bond; SF 274, Reinsurance Agreements for a Miller Act Payment Bond).

FAR clause 52.228–16, Performance and Payment Bonds-Other than Construction, as prescribed by 28.103–4, requires performance and payment bonds for other than construction contracts. This clause is only used in limited circumstances. (SF 35, Annual

Performance Bond; SF 1416, Payment Bond for Other Than Construction Contracts; SF 275, Reinsurance Agreement in Favor of the United States; SF 1418, Performance Bond for Other than Construction Contracts).

C. Annual Reporting Burden

Respondents: 803.
Responses per Respondent: 1.
Total Annual Responses: 803.
Hours per Response: 1.
Total Burden Hours: 803.
Affected Public: Businesses or other for-profit and not-for-profit institutions.
Frequency: On occasion.
Obtaining Copies: Requesters may obtain a copy of the information collection documents from the General Services Administration, Regulatory Secretariat Division (MVCB), 1800 F Street NW, Washington, DC 20405, telephone 202–501–4755. Please cite OMB Control No. 9000–0045, Bid Guarantees, Performance and Payment Bonds, and Alternative Payment Protections, in all correspondence.

Dated: April 10, 2019.

Janet Fry,

Director, Federal Acquisition Policy Division, Office of Governmentwide Acquisition Policy, Office of Acquisition Policy, Office of Governmentwide Policy.

[FR Doc. 2019–07388 Filed 4–12–19; 8:45 am]

BILLING CODE 6820–EP–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control and Prevention

[Docket No. CDC–2019–0012]

The National Healthcare Safety Network's Proposed Requirement for Submission of Billing Codes as Part of Surgical Site Infection (SSI) Event Reporting; Request for Information

AGENCY: Centers for Disease Control and Prevention (CDC), Department of Health and Human Services (HHS).

ACTION: Request for information (RFI).

SUMMARY: The Centers for Disease Control and Prevention, in the Department of Health and Human Services, announces the opening of a docket to obtain information regarding the proposed requirement for reporting of International Classification of Diseases, 10th Revision, Procedural Classification System (ICD–10–PCS) or Current Procedures Terminology (CPT) Codes (collectively, Billing Codes) when reporting data to the National Healthcare Safety Network's (NHSN) Surgical Site Infection (SSI) Module of the Patient Safety Component. CDC is opening this docket to provide the opportunity to identify challenges for facilities to include ICD–10–PCS or CPT Codes when reporting SSI data to the NHSN, which is proposed to begin in 2021.

DATES: Written comments must be received on or before May 31, 2019.

ADDRESSES: You may submit comments, identified by Docket No. CDC–2019–0012, by any of the following methods:

- *Federal eRulemaking Portal http://www.regulations.gov.* Follow the instructions for submitting comments.
- *Mail:* Katherine Allen-Bridson, National Center for Emerging and Infectious Zoonotic Disease, Centers for Disease Control and Prevention, 1600 Clifton Road NE, Mail Stop H16–3, Atlanta 30329.

Instructions: All submissions received must include the agency name and Docket Number. All relevant comments received will be posted without change to *http://www.regulations.gov,* including any personal information provided. For access to the docket to read background documents or comments received, go to *http://www.regulations.gov.*

FOR FURTHER INFORMATION CONTACT: Katherine Allen-Bridson, RN, BSN, MScPH, CIC, National Center for Emerging and Infectious Zoonotic Disease, Centers for Disease Control and Prevention, 1600 Clifton Road NE, Mail Stop H16–3, Atlanta, GA 30329. Phone: 404–639–4000; Email: *nhsn@cdc.gov.*

SUPPLEMENTARY INFORMATION:

Purpose of the Notice: The purpose of the notice is to request input and information from individuals and organizations on a proposed requirement that all procedure and event data submitted as part of the National Healthcare Safety Network's (NHSN) Surgical Site Infection (SSI) Surveillance Module include ICD–10–PCS or CPT codes. CDC will carefully consider all comments with an intent to determine the feasibility and appropriateness of the proposal.

Scope of Issue: The mission of the CDC's Division of Healthcare Quality Promotion (DHQP) is to protect patients and healthcare personnel and promote safety, quality, and value in national and international healthcare delivery systems. In accordance with this mission, DHQP seeks to identify effective prevention methods, foster their implementation, and measure their impact on the incidence of healthcare-associated infections (HAIs). Over 21,000 healthcare facilities report data on HAIs to CDC's NHSN, including data that CDC in turn reports to the Centers for Medicare and Medicaid Services (CMS) on behalf of healthcare facilities. CMS uses the data in its public reporting and payment programs.

Approach: CDC seeks information from NHSN users and stakeholders regarding SSI data reporting. Currently, reporting of ICD–10–PCS or CPT codes in the SSI surgical procedure data is optional. Facilities are not currently required to report the Billing Codes to NHSN. If they do not, facilities must instead determine the appropriate NHSN Operative Procedure Category, based on ICD–10–PCS or CPT code the facility has assigned for the procedure, and report that category to NHSN. Reporting ICD–10–PCS and CPT codes rather than only the NHSH Operative Procedure Category provides more detail about the procedure performed. Having Billing Codes that describe specific surgical procedures, rather than simply surgical procedure categories that include a number of Billing Codes, would allow CDC and other NHSN-data users to identify procedures with higher risks of SSI and group like-risk procedures for data comparison across facilities and facility locations.

Potential Areas of Focus: The CDC seeks information from NHSN users and stakeholders regarding specific considerations related to this proposal including but not limited to:

1. What, if any, challenges/barriers would the proposed Billing Code reporting requirements for NHSN SSI reporting pose for your facility? How could these challenges/barriers be minimized?

2. Would your facility be able to report the necessary Billing Code data within 4.5 months of the end of the quarter in which the procedure occurred, as is required for participation in the Centers for Medicaid and Medicare Service's Inpatient Quality Reporting Program? If no, why not, and what is the shortest amount of time following the end of the quarter that the complete data would be available?

3. If your facility is currently reporting Billing Codes to NHSN as part of SSI reporting, what lessons were learned in setting up the processes to enable such reporting?

Dated: April 9, 2019.

Sandra Cashman,

Executive Secretary, Centers for Disease Control and Prevention.

[FR Doc. 2019–07387 Filed 4–12–19; 8:45 am]

BILLING CODE 4163–18–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. FDA–2017–E–6709]

Determination of Regulatory Review Period for Purposes of Patent Extension; SYMPROIC

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA or the Agency) has determined the regulatory review period for SYMPROIC and is publishing this notice of that determination as required by law. FDA has made the determination because of the submission of an application to the Director of the U.S. Patent and Trademark Office (USPTO), Department of Commerce, for the extension of a patent which claims that human drug product.

DATES: Anyone with knowledge that any of the dates as published (see the **SUPPLEMENTARY INFORMATION** section) are incorrect may submit either electronic or written comments and ask for a redetermination by June 14, 2019. Furthermore, any interested person may petition FDA for a determination regarding whether the applicant for extension acted with due diligence during the regulatory review period by October 15, 2019. See ''Petitions'' in the **SUPPLEMENTARY INFORMATION** section for more information.

ADDRESSES: You may submit comments as follows. Please note that late, untimely filed comments will not be considered. Electronic comments must be submitted on or before June 14, 2019. The *https://www.regulations.gov* electronic filing system will accept comments until 11:59 p.m. Eastern Time at the end of June 14, 2019. Comments received by mail/hand delivery/courier (for written/paper submissions) will be considered timely if they are postmarked or the delivery service acceptance receipt is on or before that date.

Electronic Submissions

Submit electronic comments in the following way:

• *Federal eRulemaking Portal: https://www.regulations.gov.* Follow the instructions for submitting comments. Comments submitted electronically, including attachments, to *https://www.regulations.gov* will be posted to the docket unchanged. Because your comment will be made public, you are solely responsible for ensuring that your comment does not include any confidential information that you or a third party may not wish to be posted, such as medical information, your or anyone else's Social Security number, or confidential business information, such as a manufacturing process. Please note that if you include your name, contact information, or other information that identifies you in the body of your comments, that information will be posted on *https://www.regulations.gov.*

• If you want to submit a comment with confidential information that you do not wish to be made available to the public, submit the comment as a written/paper submission and in the manner detailed (see ''Written/Paper Submissions'' and ''Instructions'').

Written/Paper Submissions

Submit written/paper submissions as follows:

• *Mail/Hand Delivery/Courier (for written/paper submissions):* Dockets Management Staff (HFA–305), Food and Drug Administration, 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852.

• For written/paper comments submitted to the Dockets Management Staff, FDA will post your comment, as well as any attachments, except for information submitted, marked and identified, as confidential, if submitted as detailed in ''Instructions.''

Instructions: All submissions received must include the Docket No. FDA–2017–E–6709 for ''Determination of Regulatory Review Period for Purposes of Patent Extension; SYMPROIC.'' Received comments, those filed in a timely manner (see **ADDRESSES**), will be placed in the docket and, except for those submitted as ''Confidential Submissions,'' publicly viewable at *https://www.regulations.gov* or at the Dockets Management Staff between 9 a.m. and 4 p.m., Monday through Friday.

• Confidential Submissions—To submit a comment with confidential information that you do not wish to be made publicly available, submit your comments only as a written/paper submission. You should submit two copies total. One copy will include the information you claim to be confidential with a heading or cover note that states ''THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION.'' The Agency will review this copy, including the claimed confidential information, in its consideration of comments. The second copy, which will have the claimed confidential information redacted/blacked out, will be available for public viewing and posted on *https://www.regulations.gov.* Submit both copies to the Dockets Management Staff. If you do not wish your name and contact information to be made publicly available, you can provide this information on the cover sheet and not in the body of your comments and you must identify this information as ''confidential.'' Any information marked as ''confidential'' will not be disclosed except in accordance with § 10.20 (21 CFR 10.20) and other applicable disclosure law. For more information about FDA's posting of comments to public dockets, see 80 FR 56469, September 18, 2015, or access the information at: *https://www.gpo.gov/fdsys/pkg/FR-2015-09-18/pdf/2015-23389.pdf.*

Docket: For access to the docket to read background documents or the electronic and written/paper comments received, go to *https://www.regulations.gov* and insert the docket number, found in brackets in the heading of this document, into the ''Search'' box and follow the prompts and/or go to the Dockets Management Staff, 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852.

FOR FURTHER INFORMATION CONTACT: Beverly Friedman, Office of Regulatory Policy, Food and Drug Administration, 10903 New Hampshire Ave., Bldg. 51, Rm. 6250, Silver Spring, MD 20993, 301–796–3600.

SUPPLEMENTARY INFORMATION:

I. Background

The Drug Price Competition and Patent Term Restoration Act of 1984 (Pub. L. 98–417) and the Generic Animal Drug and Patent Term Restoration Act (Pub. L. 100–670) generally provide that a patent may be extended for a period of up to 5 years so long as the patented item (human drug product, animal drug product, medical device, food additive, or color additive) was subject to regulatory review by FDA before the item was marketed. Under these acts, a product's regulatory review period forms the basis for determining the amount of extension an applicant may receive.

A regulatory review period consists of two periods of time: A testing phase and an approval phase. For human drug products, the testing phase begins when the exemption to permit the clinical investigations of the drug becomes effective and runs until the approval phase begins. The approval phase starts with the initial submission of an application to market the human drug product and continues until FDA grants permission to market the drug product. Although only a portion of a regulatory review period may count toward the

actual amount of extension that the Director of USPTO may award (for example, half the testing phase must be subtracted as well as any time that may have occurred before the patent was issued), FDA's determination of the length of a regulatory review period for a human drug product will include all of the testing phase and approval phase as specified in 35 U.S.C. 156(g)(1)(B).

FDA has approved for marketing the human drug product, SYMPROIC (naldemedine tosylate). SYMPROIC is indicated for the treatment of opioid-induced constipation in adult patients with chronic non-cancer pain, including patients with chronic pain related to prior cancer or its treatment who do not require frequent (*e.g.,* weekly) opioid dosage escalation. Subsequent to this approval, the USPTO received a patent term restoration application for SYMPROIC (U.S. Patent No. RE46365) from Shionogi & Co., Ltd., and the USPTO requested FDA's assistance in determining the patent's eligibility for patent term restoration. In a letter dated January 9, 2018, FDA advised the USPTO that this human drug product had undergone a regulatory review period and that the approval of SYMPROIC represented the first permitted commercial marketing or use of the product. Thereafter, the USPTO requested that FDA determine the product's regulatory review period.

II. Determination of Regulatory Review Period

FDA has determined that the applicable regulatory review period for SYMPROIC is 2,523 days. Of this time, 2,157 days occurred during the testing phase of the regulatory review period, while 366 days occurred during the approval phase. These periods of time were derived from the following dates:

1. *The date an exemption under section 505(i) of the Federal Food, Drug, and Cosmetic Act (FD&C Act) (21 U.S.C. 355(i)) became effective:* April 28, 2010. FDA has verified the applicant's claim that the date the investigational new drug application became effective was April 28, 2010.

2. *The date the application was initially submitted with respect to the human drug product under section 505(b) of the FD&C Act:* March 23, 2016. FDA has verified the applicant's claim that the new drug application (NDA) for SYMPROIC (NDA 208854) was initially submitted on March 23, 2016.

3. *The date the application was approved:* March 23, 2017. FDA has verified the applicant's claim that NDA 208854 was approved on March 23, 2017.

This determination of the regulatory review period establishes the maximum potential length of a patent extension. However, the USPTO applies several statutory limitations in its calculations of the actual period for patent extension. In its application for patent extension, this applicant seeks 1,140 days of patent term extension.

III. Petitions

Anyone with knowledge that any of the dates as published are incorrect may submit either electronic or written comments and, under 21 CFR 60.24, ask for a redetermination (see **DATES**). Furthermore, as specified in § 60.30 (21 CFR 60.30), any interested person may petition FDA for a determination regarding whether the applicant for extension acted with due diligence during the regulatory review period. To meet its burden, the petition must comply with all the requirements of § 60.30, including but not limited to: must be timely (see **DATES**), must be filed in accordance with § 10.20, must contain sufficient facts to merit an FDA investigation, and must certify that a true and complete copy of the petition has been served upon the patent applicant. (See H. Rept. 857, part 1, 98th Cong., 2d sess., pp. 41–42, 1984.) Petitions should be in the format specified in 21 CFR 10.30.

Submit petitions electronically to *https://www.regulations.gov* at Docket No. FDA–2013–S–0610. Submit written petitions (two copies are required) to the Dockets Management Staff (HFA–305), Food and Drug Administration, 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852.

Dated: April 10, 2019.

Lowell J. Schiller,

Principal Associate Commissioner for Policy.

[FR Doc. 2019–07459 Filed 4–12–19; 8:45 am]

BILLING CODE 4164–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

[Document Identifier: OS–0990–0390]

Agency Information Collection Request; 60-Day Public Comment Request

AGENCY: Office of the Secretary, HHS.

ACTION: Notice.

SUMMARY: In compliance with the requirement of the Paperwork Reduction Act of 1995, the Office of the Secretary (OS), Department of Health and Human Services, is publishing the following summary of a proposed collection for public comment.

DATES: Comments on the ICR must be received on or before June 14, 2019.

ADDRESSES: Submit your comments to *Sherrette.Funn@hhs.gov* or by calling (202) 795–7714.

FOR FURTHER INFORMATION CONTACT: When submitting comments or requesting information, please include the document identifier 0990–0390–60D, and project title for reference, to Sherrette Funn, the Reports Clearance Officer, *Sherrette.funn@hhs.gov,* or call 202–795–7714.

SUPPLEMENTARY INFORMATION: Interested persons are invited to send comments regarding this burden estimate or any other aspect of this collection of information, including any of the following subjects: (1) The necessity and utility of the proposed information collection for the proper performance of the agency's functions; (2) the accuracy of the estimated burden; (3) ways to enhance the quality, utility, and clarity of the information to be collected; and (4) the use of automated collection techniques or other forms of information technology to minimize the information collection burden.

Title of the Collection: Challenge and Prize Competition Solicitations.

Type of Collection: Reinstatement w/ chg.

OMB No. 0990–0390–OS/Office of the Assistant Secretary for Administration (ASA).

Abstract: This request, pursuant to the requirement of section 3506(c)(2)(A) of the PRA, is to seek generic clearance for the collection of routine information requested of responders to solicitations HHS makes during the issuance of challenge and prize competitions posted on a publicly accessible government website, such as *Challenge.gov.* Since passage of the America COMPETES Reauthorization Act in 2011, Federal agencies including HHS were given prize authority for administering challenges and prize competitions. Challenges and prize competitions enable HHS and its family of agencies (henceforth referred to broadly as ''HHS'') to tap into the expertise and creativity of the public in new ways, as well as extend awareness of HHS programs and priorities. HHS's goal is to engage a broader number of stakeholders who are inspired to work on some of our most pressing health issues, thus supporting a new ecosystem of scientists, developers, and entrepreneurs who can continue to innovate for public health.

In order for HHS to quickly and effectively launch challenges and prize competitions on a continual basis, HHS seeks generic clearance to collect

information for these challenges and prize competitions, which will generally include first name, last name, email, city, state, and, when applicable, other demographic information of participants (or, ''solvers'') or other stakeholders. It can also include other information necessary to evaluate submissions and understand their impact related to the general goals of the challenge or prize competition, as well as additional information relevant to the particular challenge or prize competition through structured questions.

The information collected will be used to understand whether the participant has met the technical requirements for the challenge or prize competition, assist in the technical review and judging of the solutions that are provided, and understand the impact and consequences of administering the challenge or prize competition and developing solutions for submission. Information may be collected during the challenge or prize competition or after its completion.

HHS may also ask for additional information pertaining to the solver's engagement in the challenge or prize competition, such as how they learned about the challenge or prize competition, their technical background, ethnicity, age range, what they currently understand about the HHS agency hosting the challenge or prize competition, etc. This information will enable HHS to better understand the diversity of entrants, the effect of the challenge or prize competition on increasing public awareness of HHS programs and priorities, and generally, to enable the Department to improve its outreach strategies to ensure a diverse and broad innovator constituency is fostered through the use of challenges and prize competitions.

The information collected will be used to understand whether the participant has met the technical requirements for the challenge or prize competition, assist in the technical review and judging of the solutions that are provided, and understand the impact and consequences of administering the challenge or prize competition and developing solutions for submission. Information may be collected during the challenge or prize competition or after its completion. The submissions are evaluated by the agency hosting the challenge or prize competition and prizes (monetary or non-monetary) are awarded to the winning entries.

Likely Respondents: Likely respondents include individuals, businesses, and state and local governments who choose to participate in a challenge or prize competition hosted or overseen (*i.e.,* via contract, etc.) by HHS.

ANNUALIZED BURDEN HOUR TABLE

Respondents (if necessary)	Number of respondents	Number of responses per respondents	Average burden per response (hours)	Total burden hours
Individuals or Households	1,000	1	10/60	166.7
Organizations	500	1	10/60	83.3
Businesses	440	1	10/60	73.3
State, territory, tribal or local governments	60	1	10/60	10
Total		2,000		333.3

Terry Clark,

Paperwork Reduction Act Reports Clearance Officer, Office of the Secretary.

[FR Doc. 2019–07379 Filed 4–12–19; 8:45 am]

BILLING CODE 4150–04–P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

[Docket No. USCG–2019–0138]

Boston Area Maritime Security Advisory Committee; Vacancies, Coast Guard Sector Boston, MA

AGENCY: Coast Guard, Department of Homeland Security.

ACTION: Solicitation for membership.

SUMMARY: This notice requests individuals interested in serving on the Boston Area Maritime Security Committee (AMSC) to submit their applications for membership, to the Captain of the Port (COTP), Boston, MA.

DATES: Requests for membership should reach the U.S. Coast Guard COTP Boston May 15, 2019.

ADDRESSES: Applications for membership should be submitted to the Captain of the Port Boston at the following address: Commander (sx), USCG Sector Boston, 427 Commercial Street, Boston, MA 02109 or by email to *Ronald.J.Catudal@uscg.mil.*

FOR FURTHER INFORMATION CONTACT: For questions about submitting an application or about the AMSC in general, contact Mr. Ron Catudal at 617–223–5727 or by email to *Ronald.J.Catudal@uscg.mil.*

SUPPLEMENTARY INFORMATION:

Authority

Section 102 of the Maritime Transportation Security Act (MTSA) of 2002 (Pub. L. 107–295) added section 70112 to Title 46 of the U.S. Code, and authorized the Secretary of the Department in which the Coast Guard is operating to establish Area Maritime Security Advisory Committees for any port area of the United States. Under 46 U.S.C. 70112(b)(7), the Federal Advisory Committee Act (FACA) does not apply to AMSCs.

Boston AMSC Purpose

The AMSCs shall assist the Captain of the Port in the development, review, update, and exercise of the Area Maritime Security Plan for their area of responsibility. Such matters may include, but are not limited to: Identifying critical port infrastructure and operations; Identifying risks (threats, vulnerabilities, and consequences); Determining mitigation strategies and implementation methods; Developing strategies to facilitate the recovery of the MTS after a Transportation Security Incident; Developing and describing the process to continually evaluate overall port security by considering consequences and vulnerabilities, how they may change over time, and what additional mitigation strategies can be applied

AMSC Composition

The composition of an AMSC, to include the Boston AMSC, is prescribed under 33 CFR 103.305. Pursuant to that

regulation, members may be selected from the Federal, Territorial, or Tribal government; the State government and political subdivisions of the State; local public safety, crisis management, and emergency response agencies; law enforcement and security organizations; maritime industry, including labor; other port stakeholders having a special competence in maritime security; and port stakeholders affected by security practices and policies. Also, at least 7 of the AMSC members must each have 5 or more years of experience related to maritime or port security operations.

AMSC Membership

The Boston AMSC has 41 members who represent Federal, State, local, and industry stakeholders from Massachusetts. We are seeking to fill sixteen positions with this solicitation for 2019, twelve of which are due to expire in 2019.

Applicants may be required to pass an appropriate security background check prior to appointment to the committee. Members' terms of office will be for 5 years; however, a member is eligible to serve additional terms of office. Members will not receive any salary or other compensation for their service on an AMSC.

Request for Applications

Those seeking membership are not required to submit formal applications to the local Captain of the Port, however, because we do have an obligation to ensure that a specific number of members have the prerequisite maritime security experience, we encourage the submission of resumes highlighting experience in the maritime and security industries.

The Department of Homeland Security does not discriminate in selection of Committee members on the basis of race, color, religion, sex, national origin, political affiliation, sexual orientation, gender identity, marital status, disability and genetic information, age, membership in an employee organization, or other non-merit factor. The Department of Homeland Security strives to achieve a widely diverse candidate pool for all of its recruitment actions.

Dated: April 10, 2019.

Eric J. Doucette,

Captain, U.S. Coast Guard, Captain of the Port Boston, Federal Maritime Security Coordinator Boston.

[FR Doc. 2019–07405 Filed 4–12–19; 8:45 am]

BILLING CODE 4910–15–P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

[Docket No. FWS–R3–ES–2019–0007; FXES11130300000]

Receipt of Application for Enhancement of Survival Permit and Draft Candidate Conservation Agreement With Assurances/ Candidate Conservation Agreement for Monarch Butterfly; University of Illinois at Chicago; Low-Effect Screening Form

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of availability; request for comments.

SUMMARY: We, the U.S. Fish and Wildlife Service, have received an application from University of Illinois at Chicago for an enhancement of survival permit under the Endangered Species Act. The application includes an integrated programmatic candidate conservation agreement with assurances and a candidate conservation agreement (agreement) for the monarch butterfly. We have made a preliminary determination that the agreement is eligible for a categorical exclusion under the National Environmental Policy Act. The basis for this determination is contained in a low-effect screening form, which is also available for public review. We request public comment on the agreement and low-effect screening form.

DATES: We will accept comments received or postmarked on or before June 14, 2019. Any comments we receive after the closing date or not postmarked by the closing date may not be considered in the final decision on this action.

ADDRESSES:

Obtaining Documents for Review: The documents this notice announces, as well as any comments and other materials that we receive, will be available for public inspection online in Docket No. FWS–R3–ES–2019–0007 at *http://www.regulations.gov.*

Submitting Comments: You may submit comments by one of the following methods:

- *Online: http://www.regulations.gov.* Follow the instructions for submitting comments on Docket No. FWS–R3–ES–2019–0007.
- *U.S. Mail or Hand-Delivery:* Public Comments Processing, Attn: Docket No. FWS–R3–ES–2019–0007; U.S. Fish and Wildlife Service; MS: BPHC; 5275 Leesburg Pike, Falls Church, VA 22041–3803.

We will post all comments on *http://www.regulations.gov.* This generally means that we will post online any personal information that you provide (see Public Availability of Comments under **SUPPLEMENTARY INFORMATION**). We request that you send comments by only the methods described above.

FOR FURTHER INFORMATION CONTACT: Alisa Shull, Chief, Division of Endangered Species, via U.S. Mail at the Midwest Regional Office, U.S. Fish and Wildlife Service, 5600 American Blvd. West, Suite 990, Bloomington, MN 55437; via phone at 612–713–5334; or via the Federal Information Relay Service at 800–877–8339.

SUPPLEMENTARY INFORMATION:

Overview

We, the U.S. Fish and Wildlife Service (Service), have received an application from University of Illinois at Chicago (applicant) for an enhancement of survival (EOS) permit pursuant to section 10(a)(1)(A) of the Endangered Species Act of 1973, as amended (ESA; 16 U.S.C. 1531 *et seq.*), for the monarch butterfly (*Danaus plexippus*). The application includes an integrated programmatic candidate conservation agreement with assurances and candidate conservation agreement (Agreement) covering the conterminous 48 United States. The Agreement and associated permit would implement a voluntary conservation strategy developed by UIC for energy and transportation activities on enrolled lands. These activities include conservation measures to restore, maintain, enhance, or create habitat for monarch butterflies, as well as activities to conduct general maintenance, management, and modernization within existing rights-of-way and associated lands.

The intent of the Agreement is to provide non-Federal landowners in the covered area with the opportunity to voluntarily conserve the covered species and its habitat while carrying out their operations in a manner that would result in a net conservation benefit to the covered species. We have made a preliminary determination that the Agreement and permit application are eligible for a categorical exclusion under the National Environmental Policy Act of 1969 (NEPA; 42 U.S.C. 4321 *et seq.*). The basis for this determination is contained in a low-effect screening form, which is also available for public review. If approved, the EOS permit would be for a 50-year period following the signature of the Agreement and would authorize the incidental take of

the monarch butterfly, if the species comes to be listed under the ESA.

Background

Candidate Conservation Agreement With Assurances

A CCAA is an agreement with the Service in which private and other non-Federal landowners voluntarily agree to undertake management activities and conservation efforts on their properties to enhance, restore, or maintain habitat to benefit species that are proposed for listing under the ESA, that are candidates for listing, or that may become candidates. The Service works with these partners to identify threats to candidate species, plan the measures needed to address the threats and conserve these species, identify willing landowners, develop agreements, and design and implement conservation measures and monitor their effectiveness. In return for managing their lands to the benefit of the species covered by the CCAA, participating property owners receive assurances that no additional conservation measures or land, water or resource use restrictions will be imposed under the ESA (beyond those agreed to in the CCAA) on covered activities on enrolled lands should any of the covered species ever be listed under the ESA. The Service provides these assurances through an EOS permit, issued pursuant to section 10(a)(1)(A) of the ESA for a specific number of years, that becomes effective if a species covered by the CCAA and permit is listed. Under the permit, participating landowners also receive authorization for take that is incidental to activities covered by the CCAA. In a case such as this, in which a third-party would administer the CCAA, the permit is issued to the third-party administrator (in this case, the University of Illinois at Chicago), and permit coverage extends to non-Federal landowners who enroll in the Agreement through a certificate of Inclusion (CI) and comply with the requirements stated in the Agreement and their respective CIs. Additional permit application requirements and issuance criteria for CCAAs are found in the Code of Federal Regulations (CFR) at 50 CFR 17.22(d) and 17.32(d), respectively, as well as 50 CFR part 13. Please also see our joint policy on CCAAs, which we published in the **Federal Register** with the Department of Commerce's National Oceanic and Atmospheric Administration, National Marine Fisheries Service (81 FR 95164; December 27, 2016).

Candidate Conservation Agreement

In general, CCAs are voluntary conservation agreements between the Service and one or more public or private parties that identify specific conservation measures that the participants will voluntarily undertake to conserve the species covered by the agreements. Parties of a CCA do not receive the assurances associated with a CCAA, and CCAs typically address Federal lands. By addressing key threats to species on Federal lands, CCAs are particularly helpful in ensuring consistent application of a conservation strategy in situations, such as those which occur in the Coverage Area, where private activities occur on a mix of non-Federal and Federal lands. Because Federal agencies have special obligations for the conservation of listed species under section 7 of the ESA, CCAs for activities conducted on Federal lands do not include the assurances and the incidental take permit that are available to participants in a CCAA, all of whom by definition are non-Federal entities.

Proposed Action

Because the Agreement participants' properties cross Federal as well as non-Federal lands, the UIC is proposing an integrated programmatic CCAA/CCA to provide a seamless implementation of the conservation strategy across enrolled non-Federal and Federal lands at a landscape level. While the integrated Agreement applies throughout enrolled lands, neither Federal agencies nor non-Federal partners would receive EOS permit coverage or ''assurances'' on activities conducted on enrolled lands that cross Federal property. Although there are no assurances associated with Federal lands, enrollees have a high degree of certainty that they will not be subject to increased land use restrictions by the Service if the covered species becomes listed under the ESA in the future. This regulatory predictability is provided through the programmatic conference opinion (developed as part of an ESA Section 7 consultation on the Agreement) for monarch butterfly. The Agreement is intended to demonstrate that adequate conservation measures, sufficient adaptive management, and monitoring obligations are in place to provide a net conservation benefit. In the conference opinion the Service evaluates the likely effects of the agreement on the monarch and it may be converted into a biological opinion on the effective date of any decision to list the monarch butterfly. The biological opinion would include an incidental take statement that describes the anticipated level of take from implementing the Agreement on Federal and non-Federal lands and provides a legal means to allow that take to occur. The Agreement provides a programmatic conservation strategy that results in a net conservation benefit to monarch butterflies throughout the lands enrolled. Private and non-Federal partners in energy and transportation sectors are encouraged to enter into the programmatic Agreement through UIC.

The proposed action involves the issuance of a section 10(a)(1)(A) EOS permit by the Service to UIC and approval of the proposed programmatic Agreement. The purpose of the Agreement and permit is to implement a conservation strategy that benefits monarch butterflies throughout their range in the conterminous United States. The UIC would administer the Agreement and enroll eligible applicants, who would hold CIs. The Agreement and associated permit are proposed to cover 50 years from the time the Agreement is signed.

Under the proposed Agreement, UIC and partners who enroll into the agreement through UIC would create, enhance, and maintain habitat for monarch butterflies, as well as continue activities supporting operations of energy and transportation sectors, including general operations, vegetation management, and maintenance and modernization within existing rights-of-way and associated lands. The proposed Agreement does not include construction and land disturbing activities that pose significant environmental, socioeconomic, historical or cultural impacts (for example, interstate highways, pipelines, transmission lines, new rail routes, or similar).

Partners enrolled in the Agreement through UIC would hold a CI and be authorized for incidental take and assurances for monarch butterfly on non-Federal lands. Where enrolled partners have property interest across Federal lands, incidental take will be provided under a biological opinion prepared in accordance with section 7 of the ESA, granting them a high degree of certainty that additional conservation measures or limitations above those contained in the Agreement and CIs will not be imposed for monarch butterfly.

The conservation measures in this Agreement were designed to meet the net conservation benefit standard specifically for lands managed by the energy and transportation sectors. Unlike many other lands in the United States, those lands are already actively managed to prevent the growth of trees and woody vegetation. This results in

lands that are generally maintained as grassland, meadow, prairie, or shrub-scrub type habitats, all of which provide habitat for species, such as the monarch butterfly, that depend on early successional plant communities and structures. We have worked with UIC to design conservation measures expected to have a net conservation benefit to the covered species within the covered area; however, landowners and enrollees would not have to conduct every activity in this list in order for their actions to have a net conservation benefit on the monarch butterfly. To maintain a net conservation benefit, each partner must use selected conservation measures to create and maintain a proportion of their enrolled lands as monarch habitat each year. Each partner will need to follow their individual CIs and the conservation measures included within. Some examples of these conservation actions include the following: (1) Establishing and using native seed mixes containing a diversity of native wildflowers, including milkweed, as appropriate; (2) minimizing use of grazing in monarch habitat during peak breeding and migration periods to promote fall nectar plants; (3) removing woody plants in densely covered shrub areas and invasive plant species to promote grassland habitats; (4) sustaining idle lands with suitable habitat for monarch butterflies; and (5) using conservation mowing to enhance floral resources and habitat.

Covered Area

This agreement encompasses a covered area consisting of energy and transportation lands within the monarch butterfly's range across the lower 48 States. Within this covered area, Partners may enroll their energy and transportation lands (as enrolled lands). Although the covered area spans 48 States, only a portion of this area will be enrolled in the Agreement. Enrollment of lands under this Agreement is voluntary. The partners reasonably expect that monarch butterflies may occur in all or a portion of habitats on enrolled lands as a result of management actions undertaken through this Agreement. This Agreement will cover those properties that have existing, historic, or potential suitable habitat for monarchs across their range. Enrolled lands may include all or some combination of suitable habitat types or areas with the potential to create those habitats.

The scope of the covered area excludes documented overwintering sites such as overwintering groves along the California coast and other documented overwintering sites. Western monarchs use ecologically different habitat throughout both their breeding and migratory habitat as well as their overwintering grounds. Due to the ecological differences of these sites, documented overwintering sites are considered outside the scope of the covered area for the Agreement. Monarchs do also occasionally overwinter in other locations across the southern United States. These overwintering locations may be nonspecific or transient from year to year. For the purposes of the Agreement, only documented overwintering sites repeatedly relied upon for monarchs are excluded from the covered area.

National Environmental Policy Act Compliance

The issuance of a section 10(a)(1)(A) permit is a Federal action subject to NEPA compliance, including the Council on Environmental Quality regulations for implementing the procedural provisions of NEPA (40 CFR 1500–1508). The Service's decision on whether to enter into the Agreement is a Federal action subject to NEPA compliance. The UIC's proposed Agreement and related application for the Enhancement of Survival permit is eligible for categorical exclusion under NEPA.

As required by NEPA, we considered impacts to the human environment that would result from issuance of the requested permit. Entering into the Agreement is strictly a voluntary action for landowners, and the covered activities under the permit are generally activities already occurring on these properties (*e.g.,* general operations, vegetation management, and maintenance and modernization within existing rights-of-way and associated lands). As explained in the draft low-effect screening form, we believe the agreement is a ''low-effect'' project and qualifies for categorical exclusion under NEPA, as provided by 43 CFR 46.205 and 43 CFR 46.210. The proposed Agreement creates and enhances monarch habitat, addresses ongoing maintenance and minor modernization activities, and does not include construction and land disturbing activities that pose significant environmental, socioeconomic, historical or cultural impacts (for example, interstate highways, pipelines, transmission lines, new rail routes, or similar). Therefore, we are proposing to categorically exclude this action from further analysis under NEPA.

Public Comments

We specifically request information and comments from the public via this notice on our proposed Federal action to enter into the Agreement and issue an EOS permit for monarch butterfly. Further, we specifically invite submission of information regarding the adequacy of the agreement per 50 CFR parts 13 and 17.

Written comments we receive become part of the administrative record. Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. While you can request in your comment that we withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so. All submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public disclosure in their entirety.

Next Steps

We will evaluate the enhancement of survival permit application, including the agreement and any comments we receive, to determine whether the application meets the requirements of section 10(a)(1)(A) of the ESA. We will also evaluate whether the section 10(a)(1)(A) enhancement of survival permit would comply with section 7 of the ESA by conducting an intra-Service section 7 consultation. If we determine that the requirements are met, we will issue a permit under section 10(a)(1)(A) of the ESA to UIC in accordance with the applicable regulatory requirements. We will not make our final decision until after the end of the 60-day comment period and will fully consider all comments received during the comment period.

Authority

We provide this notice under section 10(c) of the ESA (16 U.S.C. 1531 *et seq.*) and its implementing regulations (50 CFR 17.22) and the NEPA (42 U.S.C. 4321 *et seq.*) and its implementing regulations (40 CFR 1506.6; 43 CFR part 46).

Dated: April 4, 2019.

Charles Wooley,

Acting Regional Director, Midwest Region.

[FR Doc. 2019–07399 Filed 4–12–19; 8:45 am]

BILLING CODE 4333–15–P

DEPARTMENT OF THE INTERIOR

Bureau of Indian Affairs

[190A2100DD/AAKC001030/A0A501010.999900 253G]

Advisory Board of Exceptional Children; Meeting

AGENCY: Bureau of Indian Affairs, Interior.

ACTION: Notice of meeting.

SUMMARY: The Bureau of Indian Education (BIE) is announcing that the Advisory Board for Exceptional Children will hold its next meeting in Albuquerque, New Mexico. The purpose of the meeting is to meet the mandates of the Individuals with Disabilities Education Act of 2004 (IDEA) for Indian children with disabilities.

DATES: The Advisory Board will hold an orientation session for members only on Wednesday, May 1, 2019, from 8:30 a.m. to 11:30 a.m. Mountain Time. The public meeting of the Advisory Board meeting will start Wednesday, May 1, 2019, from 1:00 p.m. to 4:30 p.m. On Thursday, May 2, 2019, and Friday, May 3, 2019, all Advisory Board members will meet in-session from 8:30 a.m. to 4:30 p.m. Mountain Time.

ADDRESSES: The orientation and public meetings will be held at the 1011 Indian School Road NW, Large Conference Room 326, in Albuquerque, New Mexico 87104; telephone number (480) 777–7986.

FOR FURTHER INFORMATION CONTACT: Jennifer Davis, Designated Federal Officer, Bureau of Indian Education, 2600 N. Central Avenue, Suite 800, Phoenix, Arizona 85004, email at *jennifer.davis@bie.edu* or telephone number (480) 777–7986.

SUPPLEMENTARY INFORMATION: In accordance with the Federal Advisory Committee Act, the BIE is announcing that the Advisory Board will hold its next meeting in Albuquerque, New Mexico. The Advisory Board was established under the Individuals with Disabilities Act of 2004 (20 U.S.C. 1400 *et seq.*) to advise the Secretary of the Interior, through the Assistant Secretary—Indian Affairs, on the needs of Indian children with disabilities. The meeting is open to the public.

The following items will be on the agenda:

- Orientation session for new Advisory Board members
- Report from Tony Dearman, Director, BIE Director's Office
- Report from Dr. Jeffrey Hamley Associate Deputy Director, BIE, Division of Performance and Accountability (DPA)
- Report from Donald Griffin, Supervisory Education Specialist, BIE/DPA
- Discussion with BIE Senior management to discuss special education topics related regarding students with disabilities
- Work on priorities, advice and recommendations for 2019
- Public comments (via teleconference call, Friday, May 3, 2019 meeting only *)

* During the May 3, 2019, meeting, time has been set aside for public comment via conference call from 11:00 a.m. to 11:30 a.m. Mountain Time. The call-in information is: telephone number 1–888–417–0376, passcode 1509140. Public comments can also be made in-person at the meeting site, emailed to the DFO at *jennifer.davis@bie.edu,* or faxed to (602) 265–0293 to the attention of Jennifer Davis, DFO, or mailed or hand-delivered to the Bureau of Indian Education, Attention: Jennifer Davis, DFO, 2600 N Central Avenue, Suite 800, Phoenix, Arizona 85004.

Authority: 5 U.S.C. Appendix 5; 20 U.S.C. 1400 *et seq.*

Dated: March 29, 2019.

Tara M. Sweeney,

Assistant Secretary—Indian Affairs.

[FR Doc. 2019–07438 Filed 4–12–19; 8:45 am]

BILLING CODE 4337–15–P

INTERNATIONAL TRADE COMMISSION

[Investigation No. 337–TA–1091]

Certain Color Intraoral Scanners and Related Hardware and Software; Notice of Request for Statements on the Public Interest

AGENCY: U.S. International Trade Commission.

ACTION: Notice.

SUMMARY: Notice is hereby given that the presiding administrative law judge has issued a final Initial Determination on section 337 violation and a Recommended Determination on remedy and bonding in the above-captioned investigation. The Commission is soliciting comments on public interest issues raised by the recommended relief, should the Commission find a section 337 violation. This notice is soliciting public interest comments from the public only. Parties are to file public interest submissions pursuant to Commission rules.

FOR FURTHER INFORMATION CONTACT: Amanda Pitcher Fisherow, Esq., Office of the General Counsel, U.S. International Trade Commission, 500 E Street SW, Washington, DC 20436, telephone (202) 205–2737. Copies of non-confidential documents filed in connection with this investigation are or will be available for inspection during official business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary, U.S. International Trade Commission, 500 E Street SW, Washington, DC 20436, telephone (202) 205–2000. General information concerning the Commission may also be obtained by accessing its internet server at *https://www.usitc.gov.* The public record for this investigation may be viewed on the Commission's electronic docket (EDIS) at *https://edis.usitc.gov.* Hearing-impaired persons are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on (202) 205–1810.

SUPPLEMENTARY INFORMATION: Section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. 1337 (''section 337''), provides that if the Commission finds a violation, it shall exclude the articles concerned from the United States unless, after considering the effect of such exclusion upon the public health and welfare, competitive conditions in the United States economy, the production of like or directly competitive articles in the United States, and United States consumers, it finds that such articles should not be excluded from entry. 19 U.S.C. 1337(d)(1). A similar provision applies to cease and desist orders. 19 U.S.C. 1337(f)(1).

The Commission is soliciting comments on public interest issues raised by the recommended relief, should the Commission find a violation, *i.e.,:* (1) A limited exclusion order (''LEO'') against certain color intraoral scanners and related hardware and software; and (2) a cease and desist order (''CDO'') against each respondent.

The Commission is interested in further development of the record on the public interest in this investigation. Accordingly, parties are to file public interest submissions pursuant to pursuant to 19 CFR 210.50(a)(4). In addition, members of the public are hereby invited to file submissions of no more than five (5) pages, inclusive of attachments, concerning the public interest in light of the administrative law judge's Recommended Determination on remedy and bond issued in this investigation on March 1, 2019. Comments should address whether issuance of the LEO and CDOs in this investigation, should the Commission find a violation, would

affect the public health and welfare in the United States, competitive conditions in the United States economy, the production of like or directly competitive articles in the United States, or United States consumers.

In particular, the Commission is interested in comments that:

(i) Explain how the articles potentially subject to the recommended orders are used in the United States;

(ii) identify any public health, safety, or welfare concerns in the United States relating to the recommended orders;

(iii) identify like or directly competitive articles that complainants, their licensees, or third parties make in the United States which could replace the subject articles if they were to be excluded;

(iv) indicate whether complainants, complainants' licensees, and/or third party suppliers have the capacity to replace the volume of articles potentially subject to the recommended exclusion order and/or a cease and desist order within a commercially reasonable time; and

(v) explain how the LEO and CDOs would impact consumers in the United States.

Written submissions from the public must be filed no later than close of business on Tuesday, April 30, 2019.

Persons filing written submissions must file the original document electronically on or before the deadlines stated above and submit 8 true paper copies to the Office of the Secretary by noon the next day pursuant to section 210.4(f) of the Commission's Rules of Practice and Procedure (19 CFR 210.4(f)). Submissions should refer to the investigation number (''Inv. No. 337–TA–1091'') in a prominent place on the cover page and/or the first page. *See* Handbook on Filing Procedures (*https://www.usitc.gov/secretary/documents/handbook_on_filing_procedures.pdf*). Persons with questions regarding filing should contact the Secretary (202–205–2000).

Any person desiring to submit a document to the Commission in confidence must request confidential treatment. All such requests should be directed to the Secretary to the Commission and must include a full statement of the reasons why the Commission should grant such treatment. *See* 19 CFR 201.6. Documents for which confidential treatment by the Commission is properly sought will be treated accordingly. A redacted non-confidential version of the document must also be filed simultaneously with any confidential filing. All non-confidential written submissions will be available for public inspection at the Office of the Secretary and on EDIS.

This action is taken under the authority of section 337 of the Tariff Act of 1930, as amended (19 U.S.C. 1337), and of sections 201.10 and 210.50 of the Commission's Rules of Practice and Procedure (19 CFR 201.10, 210.50).

By order of the Commission.

Issued: April 9, 2019.

Lisa Barton,

Secretary to the Commission.

[FR Doc. 2019–07351 Filed 4–12–19; 8:45 am]

BILLING CODE 7020–02–P

DEPARTMENT OF JUSTICE

Federal Bureau of Investigation

Notice of Charter Reestablishment

In accordance with the provisions of the Federal Advisory Committee Act, Title 5, United States Code, Appendix, and Title 41, Code of Federal Regulations, Section 101–6.1015, with the concurrence of the Attorney General, I have determined that the reestablishment of the Criminal Justice Information Services (CJIS) Advisory Policy Board (APB) is in the public interest. In connection with the performance of duties imposed upon the FBI by law, I hereby give notice of the reestablishment of the APB Charter.

The APB provides me with general policy recommendations with respect to the philosophy, concept, and operational principles of the various criminal justice information systems managed by the FBI's CJIS Division.

The APB includes representatives from local and state criminal justice agencies; tribal law enforcement representatives; members of the judicial, prosecutorial, and correctional sectors of the criminal justice community, as well as one individual representing a national security agency; a representative of the National Crime Prevention and Privacy Compact Council; a representative of federal agencies participating in the CJIS Division Systems; and representatives of criminal justice professional associations (*i.e.,* the American Probation and Parole Association; American Society of Crime Laboratory Directors; International Association of Chiefs of Police; National District Attorneys Association; National Sheriffs' Association; Major Cities Chiefs Association; Major County Sheriffs' of America Association; and a representative from a national professional association representing the courts or court administrators nominated by the Conference of Chief Justices). The Attorney General has granted me the authority to appoint all members to the APB.

The APB functions solely as an advisory body in compliance with the provisions of the Federal Advisory Committee Act. The Charter has been filed in accordance with the provisions of the Act.

Dated: March 21, 2019.

Christopher A. Wray,

Director.

[FR Doc. 2019–07401 Filed 4–12–19; 8:45 am]

BILLING CODE 4410–02–P

DEPARTMENT OF LABOR

Office of the Secretary

Agency Information Collection Activities; Submission for OMB Review; Comment Request; Summary of Benefits and Coverage and Uniform Glossary Required Under the Affordable Care Act

ACTION: Notice of availability; request for comments.

SUMMARY: The Department of Labor (DOL) is submitting the Employee Benefits Security Administration (EBSA) sponsored information collection request (ICR) titled, ''Summary of Benefits and Coverage and Uniform Glossary Required Under the Affordable Care Act,'' to the Office of Management and Budget (OMB) for review and approval for continued use, without change, in accordance with the Paperwork Reduction Act of 1995 (PRA). Public comments on the ICR are invited.

DATES: The OMB will consider all written comments that agency receives on or before May 15, 2019.

ADDRESSES: A copy of this ICR with applicable supporting documentation; including a description of the likely respondents, proposed frequency of response, and estimated total burden may be obtained free of charge from the *RegInfo.gov* website at *http://www.reginfo.gov/public/do/PRAViewICR?ref_nbr=201902-1220-002* (this link will only become active on the day following publication of this notice) or by contacting Michel Smyth by telephone at 202–693–4129, TTY 202–693–8064, (these are not toll-free numbers) or by email at *DOL_PRA_PUBLIC@dol.gov.*

Submit comments about this request by mail to the Office of Information and Regulatory Affairs, Attn: OMB Desk Officer for DOL–EBSA, Office of

Management and Budget, Room 10235, 725 17th Street NW, Washington, DC 20503; by Fax: 202–395–5806 (this is not a toll-free number); or by email: *OIRA_submission@omb.eop.gov.* Commenters are encouraged, but not required, to send a courtesy copy of any comments by mail or courier to the U.S. Department of Labor—OASAM, Office of the Chief Information Officer, Attn: Departmental Information Compliance Management Program, Room N1301, 200 Constitution Avenue NW, Washington, DC 20210; or by email: *DOL_PRA_PUBLIC@dol.gov.*

FOR FURTHER INFORMATION CONTACT: Michel Smyth by telephone at 202–693–4129, TTY 202–693–8064, (these are not toll-free numbers) or by email at *DOL_PRA_PUBLIC@dol.gov.*

SUPPLEMENTARY INFORMATION: This ICR seeks to extend PRA authority for the Summary of Benefits and Coverage and Uniform Glossary Required Under the Affordable Care Act information collection. Section 2715 of the PHS Act directs the Department of Health and Human Services (HHS), the Department of Labor (DOL), and the Department of the Treasury (collectively, the Departments), in consultation with the National Association of Insurance Commissioners (NAIC) and a working group comprised of stakeholders, to ''develop standards for use by a group health plan and a health insurance issuer in compiling and providing to applicants, enrollees, and policyholders and certificate holders a summary of benefits and coverage explanation that accurately describes the benefits and coverage under the applicable plan or coverage.'' To implement these disclosure requirements, collection of information requests relate to the provision of the following: Summary of benefits and coverage, which includes coverage examples; a uniform glossary of health coverage and medical terms, and a notice of modifications. Public Law 111–148 Section 2714 (Affordable Care Act) authorizes this information collection. *See* 29 CFR 2520.104b–10.

This information collection is subject to the PRA. A Federal agency generally cannot conduct or sponsor a collection of information, and the public is generally not required to respond to an information collection, unless it is approved by the OMB under the PRA and displays a currently valid OMB Control Number. In addition, notwithstanding any other provisions of law, no person shall generally be subject to penalty for failing to comply with a collection of information that does not display a valid Control Number. *See* 5 CFR 1320.5(a) and 1320.6. The DOL obtains OMB approval for this information collection under Control Number 1210–0147.

OMB authorization for an ICR cannot be for more than three (3) years without renewal, and the current approval for this collection is scheduled to expire on 04/30/2019. The DOL seeks to extend PRA authorization for this information collection for three (3) more years, without any change to existing requirements. The DOL notes that existing information collection requirements submitted to the OMB receive a month-to-month extension while they undergo review. For additional substantive information about this ICR, see the related notice published in the **Federal Register** on 10/23/2018 (83 FR 53500).

Interested parties are encouraged to send comments to the OMB, Office of Information and Regulatory Affairs at the address shown in the **ADDRESSES** section within thirty (30) days of publication of this notice in the **Federal Register**. In order to help ensure appropriate consideration, comments should mention OMB Control Number 1210–0147. The OMB is particularly interested in comments that:

- Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;
- Evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;
- Enhance the quality, utility, and clarity of the information to be collected; and
- Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, *e.g.,* permitting electronic submission of responses.

Agency: DOL–EBSA.

Title of Collection: Summary of Benefits and Coverage and Uniform Glossary Required Under the Affordable Care Act.

OMB Control Number: 1210–0147.

Affected Public: Private Sector.

Total Estimated Number of Respondents: 4,701,736.

Total Estimated Number of Responses: 72,826,994.

Total Estimated Annual Time Burden: 328,265 hours.

Total Estimated Annual Other Costs Burden: $7,040,366.

Authority: 44 U.S.C. 3507(a)(1)(D).

Frederick Licari,

Departmental Clearance Officer (Acting).

[FR Doc. 2019–07378 Filed 4–12–19; 8:45 am]

BILLING CODE 4510–29–P

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

[NOTICE: (19–016)]

Name of Information Collection: Financial Assistant Awards/Grants and Cooperative Agreements

AGENCY: National Aeronautics and Space Administration (NASA).

ACTION: Notice of information collection—renewal.

SUMMARY: The National Aeronautics and Space Administration, as part of its continuing effort to reduce paperwork and respondent burden, invites the general public and other Federal agencies to take this opportunity to comment on proposed and/or continuing information collections.

DATES: All comments should be submitted within 60 calendar days from the date of this publication.

ADDRESSES: All comments should be addressed to Gatrie Johnson, National Aeronautics and Space Administration, 300 E Street SW, Washington, DC 20546–0001.

FOR FURTHER INFORMATION CONTACT: Requests for additional information or copies of the information collection instrument(s) and instructions should be directed to Gatrie Johnson, NASA Clearance Officer, NASA Headquarters, 300 E Street SW, JF0000, Washington, DC 20546, *Gatrie.Johnson@NASA.gov,* 202–358–1013.

SUPPLEMENTARY INFORMATION:

I. Abstract

This is a request to renew OMB control number 2700–0092. This collection is required to ensure proper accounting of Federal funds and property provided under financial assistance awards (grants and cooperative agreements). Reporting and recordkeeping are prescribed at 2 CFR part 1800 for awards issued to nonprofits, institutions of higher educations, government, and commercial firms when cost sharing is not required and 14 CFR part 1274 for awards issued to commercial firms when cost sharing is required.

II. Methods of Collection

Proposals are submitted through the NASA Solicitation and Proposal

Integrated Review and Evaluation System (NSPIRES) or *Grants.gov.* The use of these systems reduces the need for proposers to submit multiple copies to the agency. It allows proposers to submit multiple proposals to different funding announcements without registering each time. Electronic funds transfer is used for payment under Treasury guidance, for commercial firms and through the HHS Payment Management System (PMS) for other recipients. In addition, NASA encourages the use of computer technology and is participating in Federal efforts to extend the use of information technology to more Government processes.

Basis of Estimate.

Approximately 6,100 NASA financial assistance awards are open at any one time. It is estimated that out of the 7,100 proposals received each year, NASA awards approximately 1,600 new awards. The period of performance for each financial assistance award is usually three to five years. NASA had approximately 120 awards with commercial firms. Commercial firms submit quarterly payment requests directly to NASA, while other recipients submit the Federal Financial Reports (SF 425) on a quarterly basis to the HHS PMS. Performance, Property, and Patent Reports are filed annually. Historical records indicate that, on average, 1,625 changes are submitted annually. The total number of respondents is based on the average number of proposals that are received each year and the average number of active grants that are managed each year. The total number of hours spent on each task was estimated through historical records and experience of former recipients. Using past calculations, the total cost was estimated using the average salary (wages and benefits) for a GS–12 step 5.

III. Data

Title: Financial Assistant Awards/ Grants and Cooperative Agreements.

OMB Number: 2700–0092.

Type of review: Renewal of a previously approved information collection.

Affected Public: Non-profits, institutions of higher educations, government, and commercial firms.

Estimated Number of Respondents: 13,600.

Estimated Total Annual Burden Hours: 717,641.

Estimated Total Annual Cost to Respondents: $25,131,787.82.

IV. Request for Comments

Comments are invited on: (1) Whether the proposed collection of information is necessary for the proper performance of the functions of NASA, including whether the information collected has practical utility; (2) the accuracy of NASA's estimate of the burden (including hours and cost) of the proposed collection of information; (3) ways to enhance the quality, utility, and clarity of the information to be collected; and (4) ways to minimize the burden of the collection of information on respondents, including automated collection techniques or the use of other forms of information technology.

Comments submitted in response to this notice will be summarized and included in the request for OMB approval of this information collection. They will also become a matter of public record.

Gatrie Johnson,

NASA PRA Clearance Officer.

[FR Doc. 2019–07352 Filed 4–12–19; 8:45 am]

BILLING CODE 7510–13–P

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Notice of Information Collection

AGENCY: National Aeronautics and Space Administration (NASA).

Notice: (19–017).

ACTION: Notice of information collection.

SUMMARY: The National Aeronautics and Space Administration, as part of its continuing effort to reduce paperwork and respondent burden, invites the general public and other Federal agencies to take this opportunity to comment on proposed and/or continuing information collections, as required by the Paperwork Reduction Act of 1995.

DATES: All comments should be submitted within 60 calendar days from the date of this publication.

ADDRESSES: All comments should be addressed to Gatrie Johnson, JF000, National Aeronautics and Space Administration, Washington, DC 20546–0001.

FOR FURTHER INFORMATION CONTACT: Requests for additional information or copies of the information collection instrument(s) and instructions should be directed to Gatrie Johnson, NASA Clearance Officer, NASA Headquarters, 300 E Street SW, JF0000, Washington, DC 20546–0001 or *Gatrie.Johnson@nasa.gov.*

SUPPLEMENTARY INFORMATION:

I. Abstract

To ensure accurate reporting of Government-owned, contractor-held property on the financial statements and to provide information necessary for effective property management in accordance with FAR Part 45, NASA obtains summary data annually from the official Government property records maintained by its contractors. The information is submitted via the NASA Form 1018, at the end of each fiscal year.

II. Method of Collection

Electronic.

III. Data

Title: NASA Property in the Custody of Contractors.

OMB Number: 2700–0017.

Type of Review: Renewal of a previously approved information collection.

Affected Public: Business or other for-profit and not-for-profit institutions.

Estimated Number of Respondents: 726.

Estimated Time per Response: 4 hrs.

Estimated Total Annual Burden Hours: 2,644.

Estimated Total Annual Cost: $308,944.00.

IV. Request for Comments

Comments are invited on: (1) Whether the proposed collection of information is necessary for the proper performance of the functions of NASA, including whether the information collected has practical utility; (2) the accuracy of NASA's estimate of the burden (including hours and cost) of the proposed collection of information; (3) ways to enhance the quality, utility, and clarity of the information to be collected; and (4) ways to minimize the burden of the collection of information on respondents, including automated collection techniques or the use of other forms of information technology. Comments submitted in response to this notice will be summarized and included in the request for OMB approval of this information collection. They will also become a matter of public record.

Gatrie Johnson,

NASA PRA Clearance Officer.

[FR Doc. 2019–07353 Filed 4–12–19; 8:45 am]

BILLING CODE 7510–13–P

NATIONAL CREDIT UNION ADMINISTRATION

Sunshine Act: Notice of Agency Meeting

TIME AND DATE: 10:00 a.m., Thursday, April 18, 2019.

PLACE: Board Room, 7th Floor, Room 7047, 1775 Duke Street (All visitors must use Diagonal Road Entrance), Alexandria, VA 22314–3428.

STATUS: Open.

MATTERS TO BE CONSIDERED:

1. NCUA Rules and Regulations, Compensation in Connection with Loans to Members.

Recess: 10:15 a.m.

TIME AND DATE: 10:30 a.m., Thursday, April 18, 2019.

PLACE: Board Room, 7th Floor, Room 7047, 1775 Duke Street, Alexandria, VA 22314–3428.

STATUS: Closed.

MATTERS TO BE CONSIDERED:

1. Section 205(d) Request for Consent. Closed pursuant to Exemption (6).
2. Supervisory Action. Closed pursuant to Exemptions (8), (9)(i)(B), and (9)(ii).

CONTACT PERSON FOR MORE INFORMATION: Gerard Poliquin, Secretary of the Board, Telephone: 703–518–6304.

Gerard Poliquin,

Secretary of the Board.

[FR Doc. 2019–07577 Filed 4–11–19; 4:15 pm]

BILLING CODE 7535–01–P

NATIONAL SCIENCE FOUNDATION

Sunshine Act Meeting; National Science Board

The National Science Board's Committee on National Science and Engineering Policy (SEP), pursuant to NSF regulations (45 CFR 614), the National Science Foundation Act, as amended (42 U.S.C. 1862n–5), and the Government in the Sunshine Act (5 U.S.C. 552b), hereby gives notice of the scheduling of a teleconference for the transaction of National Science Board business, as follows:

TIME AND DATE: Friday, April 19, 2019 at 4:00 p.m.–5:00 p.m. EDT.

PLACE: This meeting will be held by teleconference at the National Science Foundation, 2415 Eisenhower Avenue, Alexandria, VA 22314. An audio link will be available for the public. Members of the public must contact the Board Office to request the public audio link by sending an email to *nationalsciencebrd@nsf.gov* at least 24 hours prior to the teleconference.

STATUS: Open.

MATTERS TO BE CONSIDERED: Chair's opening remarks; update on the progress of 2020 Indicators and its component Thematic Reports; presentation and discussion of the new process for approval of the Thematic Reports; and discussion of the plan for communicating with stakeholders about the ''reimagined'' Indicators prior to the publication of the first Thematic Reports.

CONTACT PERSON FOR MORE INFORMATION: Point of contact for this meeting is: Reba Bandyopadhyay (*rbandyop@nsf.gov*), 703/292–7000.

Meeting information and updates (time, place, subject matter or status of meeting) may be found at *http://www.nsf.gov/nsb/meetings/notices.jsp#sunshine.* Please refer to the National Science Board website *www.nsf.gov/nsb* for additional information.

Christopher Blair,

Executive Assistant, National Science Board Office.

[FR Doc. 2019–07526 Filed 4–11–19; 11:15 am]

BILLING CODE 7555–01–P

POSTAL REGULATORY COMMISSION

[Docket No. CP2017–258]

New Postal Product

AGENCY: Postal Regulatory Commission.

ACTION: Notice.

SUMMARY: The Commission is noticing a recent Postal Service filing for the Commission's consideration concerning a negotiated service agreement. This notice informs the public of the filing, invites public comment, and takes other administrative steps.

DATES: *Comments are due:* April 17, 2019.

ADDRESSES: Submit comments electronically via the Commission's Filing Online system at *http://www.prc.gov.* Those who cannot submit comments electronically should contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section by telephone for advice on filing alternatives.

FOR FURTHER INFORMATION CONTACT: David A. Trissell, General Counsel, at 202–789–6820.

SUPPLEMENTARY INFORMATION:

Table of Contents

I. Introduction
II. Docketed Proceeding(s)

I. Introduction

The Commission gives notice that the Postal Service filed request(s) for the Commission to consider matters related to negotiated service agreement(s). The request(s) may propose the addition or removal of a negotiated service agreement from the market dominant or the competitive product list, or the modification of an existing product currently appearing on the market dominant or the competitive product list.

Section II identifies the docket number(s) associated with each Postal Service request, the title of each Postal Service request, the request's acceptance date, and the authority cited by the Postal Service for each request. For each request, the Commission appoints an officer of the Commission to represent the interests of the general public in the proceeding, pursuant to 39 U.S.C. 505 (Public Representative). Section II also establishes comment deadline(s) pertaining to each request.

The public portions of the Postal Service's request(s) can be accessed via the Commission's website (*http://www.prc.gov*). Non-public portions of the Postal Service's request(s), if any, can be accessed through compliance with the requirements of 39 CFR 3007.301.[1]

The Commission invites comments on whether the Postal Service's request(s) in the captioned docket(s) are consistent with the policies of title 39. For request(s) that the Postal Service states concern market dominant product(s), applicable statutory and regulatory requirements include 39 U.S.C. 3622, 39 U.S.C. 3642, 39 CFR part 3010, and 39 CFR part 3020, subpart B. For request(s) that the Postal Service states concern competitive product(s), applicable statutory and regulatory requirements include 39 U.S.C. 3632, 39 U.S.C. 3633, 39 U.S.C. 3642, 39 CFR part 3015, and 39 CFR part 3020, subpart B. Comment deadline(s) for each request appear in section II.

II. Docketed Proceeding(s)

1. *Docket No(s).:* CP2017–258; *Filing Title:* Notice of the United States Postal Service of Filing Modification Three to a Global Plus 3 Negotiated Service Agreement; *Filing Acceptance Date:* April 9, 2019; *Filing Authority:* 39 CFR 3015.5; *Public Representative:* Curtis E. Kidd; *Comments Due:* April 17, 2019.

[1] *See* Docket No. RM2018–3, Order Adopting Final Rules Relating to Non-Public Information, June 27, 2018, Attachment A at 19–22 (Order No. 4679).

This Notice will be published in the **Federal Register**.

Stacy L. Ruble,

Secretary.

[FR Doc. 2019–07413 Filed 4–12–19; 8:45 am]

BILLING CODE 7710–FW–P

POSTAL SERVICE

Temporary Emergency Committee of the Board of Governors; Sunshine Act Meeting

FEDERAL REGISTER CITATION OF PREVIOUS ANNOUNCEMENT: 84 FR 12298.

PREVIOUSLY ANNOUNCED TIME AND DATE OF THE MEETING: Tuesday, April 9, 2019, at 8:30 a.m.

PLACE: Washington, DC.

STATUS: Closed.

CHANGES IN THE MEETING: The meeting is extended one additional day, beginning at 8:30 a.m. on Wednesday, April 10, 2019.

CONTACT PERSON FOR MORE INFORMATION: Michael J. Elston, Acting Secretary of the Board, U.S. Postal Service, 475 L'Enfant Plaza SW, Washington, DC 20260–1000. Telephone: (202) 268–4800.

Michael J. Elston,

Acting Secretary.

[FR Doc. 2019–07544 Filed 4–11–19; 4:15 pm]

BILLING CODE 7710–12–P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–85576; File No. SR–IEX–2019–04]

Self-Regulatory Organizations; Investors Exchange LLC; Notice of Filing and Immediate Effectiveness of Proposed Rule Change To Amend IEX Rule 11.280 (Limit Up-Limit Down Plan and Trading Halts) To Extend the Pilot Period for the Regulation NMS Plan To Address Extraordinary Market Volatility to the Close of Business on October 18, 2019

April 9, 2019.

Pursuant to Section 19(b)(1) [1] of the Securities Exchange Act of 1934 (the ''Act'') [2] and Rule 19b–4 thereunder,[3] notice is hereby given that, on April 8, 2019, the Investors Exchange LLC (''IEX'' or the ''Exchange'') filed with the Securities and Exchange Commission (the ''Commission'') the proposed rule change as described in Items I and II below, which Items have been prepared by the self-regulatory organization. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

Pursuant to the provisions of Section 19(b)(1) under the Securities Exchange Act of 1934 (''Act''),[4] and Rule 19b–4 thereunder,[5] IEX is filing with the Commission a proposed rule change to amend IEX Rule 11.280 (Limit Up-Limit Down Plan and Trading Halts) to extend the pilot period for the Regulation NMS Plan to Address Extraordinary Market Volatility, to the close of business on October 18, 2019. IEX has designated this rule change as ''non-controversial'' under Section 19(b)(3)(A) of the Act [6] and provided the Commission with the notice required by Rule 19b–4(f)(6) thereunder.[7] The text of the proposed rule change is available at the Exchange's website at *www.iextrading.com,* at the principal office of the Exchange, and at the Commission's Public Reference Room.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the self-regulatory organization included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statement [sic] may be examined at the places specified in Item IV below. The self-regulatory organization has prepared summaries, set forth in Sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The purpose of this proposed rule change is to amend IEX Rule 11.280 (Limit Up-Limit Down Plan and Trading Halts) (''Rule 11.280'') to extend the pilot period for the Regulation NMS Plan to Address Extraordinary Market Volatility, to the close of business on October 18, 2019. Rule 11.280 provides a methodology for determining when to halt trading in all stocks due to extraordinary market volatility, *i.e.,* market-wide circuit breakers. The market-wide circuit breaker mechanism under Rule 11.280 was approved by the Commission to operate on a pilot basis, the term of which was to coincide with the pilot period for the Plan to Address Extraordinary Market Volatility Pursuant to Rule 608 of Regulation NMS (the ''LULD Plan''),[8] including any extensions to the pilot period for the LULD Plan. The Commission published an amendment to the LULD Plan for it to operate on a permanent, rather than pilot, basis.[9]

The Exchange proposes to amend Rule 11.280 to untie the pilot's effectiveness from that of the LULD Plan and to extend the pilot's effectiveness to the close of business on October 18, 2019. The Exchange does not propose any additional changes to Rule 11.280.

Market-wide circuit breakers under Rule 11.280 provide an important, automatic mechanism that is invoked to promote stability and investor confidence during a period of significant stress when securities markets experience extreme broad-based declines. All U.S. equity exchanges have rules relating to market-wide circuit breakers, which are designed to slow the effects of extreme price movement through coordinated trading halts across securities markets when severe price declines reach levels that may exhaust market liquidity. Market-wide circuit breakers provide for trading halts in all equities and options markets during a severe market decline as measured by a single-day decline in the S&P 500 Index.

Pursuant to Rule 11.280, a market-wide trading halt will be triggered if the S&P 500 Index declines in price by specified percentages from the prior day's closing price of that index. Currently, the triggers are set at three circuit breaker thresholds: A 7% market decline (Level 1), a 13% market decline (Level 2) and a 20% market decline (Level 3). A market decline that triggers a Level 1 or Level 2 circuit breaker after 9:30 a.m. ET and before 3:25 p.m. ET would halt market-wide trading for 15 minutes, while a similar market decline at or after 3:25 p.m. ET would not halt market-wide trading. A market decline that triggers a Level 3 circuit breaker, at

[1] 15 U.S.C. 78s(b)(1).

[2] 15 U.S.C. 78a.

[3] 17 CFR 240.19b–4.

[4] 15 U.S.C. 78s(b)(1).

[5] 17 CFR 240.19b–4.

[6] 15 U.S.C. 78s(b)(3)(A).

[7] 17 CFR 240.19b–4.

[8] *See* Securities Exchange Act Release No. 67091 (May 31, 2012), 77 FR 33498 (June 6, 2012) (the ''Limit Up-Limit Down Release''). An amendment to the LULD Plan adding IEX as a Participant was filed with the Commission on August 11, 2016, and became effective upon filing pursuant to Rule 608(b)(3)(iii) of the Act because it involves solely technical or ministerial matters.

[9] *See* Securities Exchange Act Release No. 84843 (December 18, 2018), 83 FR 66464 (December 26, 2018) (Amendment No. 18 Proposing Release).

any time during the trading day, would halt market-wide trading for the remainder of the trading day.

The Exchange intends to file a separate proposed rule change with the Commission to operate Rule 11.280 on a permanent, rather than pilot, basis. Extending the effectiveness of Rule 11.280 to the close of business on October 18, 2019 should provide the Commission adequate time to consider whether to approve the Exchange's separate proposal to operate the market-wide circuit breaker mechanism under Rule 11.280 on a permanent basis.

2. Statutory Basis

The Exchange believes that its proposal is consistent with the requirements of Sections 6(b) [10] and 6(b)(5) of the Act,[11] in particular, because it would promote just and equitable principles of trade, remove impediments to, and perfect the mechanism of, a free and open market and a national market system. The Exchange also believes that the proposed rule change promotes just and equitable principles of trade in that it promotes transparency and uniformity across markets concerning when and how to halt trading in all stocks as a result of extraordinary market volatility. Extending the market-wide circuit breaker pilot under Rule 11.280 an additional six months would ensure the continued, uninterrupted operation of a consistent mechanism to halt trading across the U.S. markets while the Commission considers whether to approve the pilot on a permanent basis. The proposed rule change would thus promote fair and orderly markets and the protection of investors and the public interest. Based on the foregoing, the Exchange believes the benefits to market participants from the market-wide circuit breaker mechanism under Rule 11.280 should continue on a pilot basis while the Commission considers whether to permanently approve the market-wide circuit breaker.

B. Self-Regulatory Organization's Statement on Burden on Competition

IEX does not believe that the proposed rule change implicates any competitive issues because the proposal would ensure the continued, uninterrupted operation of a consistent mechanism to halt trading across the U.S. markets while the Commission considers whether to permanently approve the market-wide circuit breaker mechanism under Rule 11.280. Further, IEX understands that FINRA and other national securities exchanges will file proposals to extend their rules regarding the market-wide circuit breaker pilot with the Commission so that the market-wide circuit breaker mechanism may continue uninterrupted while the Commission considers whether to approve its operation on a permanent basis.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

Written comments were neither solicited nor received.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Because the foregoing proposed rule change does not: (i) Significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative for 30 days from the date on which it was filed, or such shorter time as the Commission may designate, it has become effective pursuant to Section 19(b)(3)(A) of the Act [12] and Rule 19b–4(f)(6) thereunder.[13]

A proposed rule change filed under Rule 19b–4(f)(6) [14] normally does not become operative for 30 days after the date of filing. However, pursuant to Rule 19b–4(f)(6)(iii),[15] the Commission may designate a shorter time if such action is consistent with the protection of investors and the public interest. The Exchange has asked the Commission to waive the 30-day operative delay so that the proposal may become operative upon filing. Extending the pilot for an additional six months will allow the uninterrupted operation of the existing pilot to halt trading across the U.S. markets while the Commission considers whether to approve the pilot on a permanent basis. The extension simply maintains the status quo. Therefore, the Commission believes that waiving the 30-day operative delay is consistent with the protection of investors and the public interest. The Commission hereby designates the proposed rule change to be operative upon filing.[16]

At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov.* Please include File Number SR–IEX–2019–04 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.

All submissions should refer to File Number SR–IEX–2019–04. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549 on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish

[10] 15 U.S.C. 78f(b).

[11] 15 U.S.C. 78f(b)(5).

[12] 15 U.S.C. 78s(b)(3)(A).

[13] 17 CFR 240.19b–4(f)(6).

[14] *Id.*

[15] 17 CFR 240.19b–4(f)(g)(iii).

[16] For purposes only of waiving the 30-day operative delay, the Commission has also considered the proposed rule's impact on efficiency, competition, and capital formation. *See* 15 U.S.C. 78c(f).

to make available publicly. All submissions should refer to File Number SR–IEX–2019–04, and should be submitted on or before May 6, 2019.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[17]

Jill M. Peterson,

Assistant Secretary.

[FR Doc. 2019–07364 Filed 4–12–19; 8:45 am]

BILLING CODE 8011–01–P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–85573; File No. SR–NYSEArca–2019–04]

Self-Regulatory Organizations; NYSE Arca, Inc.; Notice of Designation of a Longer Period for Commission Action on a Proposed Rule Change To Amend NYSE Arca Rule 5.2–E(j)(3) To Adopt Generic Listing Standards for Investment Company Units Based on an Index of Municipal Bond Securities

April 9, 2019.

On February 8, 2019, NYSE Arca, Inc. (''Exchange'' or ''NYSE Arca'') filed with the Securities and Exchange Commission (''Commission''), pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (''Act'') [1] and Rule 19b–4 thereunder,[2] a proposed rule change to amend NYSE Arca Rule 5.2–E(j)(3) to adopt generic listing standards for Investment Company Units based on an index of municipal bond securities. The proposed rule change was published for comment in the **Federal Register** on February 27, 2019.[3] The Commission has received no comment letters on the proposed rule change.

Section 19(b)(2) of the Act [4] provides that within 45 days of the publication of notice of the filing of a proposed rule change, or within such longer period up to 90 days as the Commission may designate if it finds such longer period to be appropriate and publishes its reasons for so finding or as to which the self-regulatory organization consents, the Commission shall either approve the proposed rule change, disapprove the proposed rule change, or institute proceedings to determine whether the proposed rule change should be disapproved. The 45th day after publication of the notice for this proposed rule change is April 13, 2019. The Commission is extending this 45-day time period.

The Commission finds that it is appropriate to designate a longer period within which to take action on the proposed rule change so that it has sufficient time to consider the proposed rule change. Accordingly, the Commission, pursuant to Section 19(b)(2) of the Act,[5] designates May 28, 2019, as the date by which the Commission shall either approve or disapprove, or institute proceedings to determine whether to disapprove, the proposed rule change (File No. SR–NYSEArca–2019–04).

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[6]

Jill M. Peterson,

Assistant Secretary.

[FR Doc. 2019–07365 Filed 4–12–19; 8:45 am]

BILLING CODE 8011–01–P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–85565; File No. SR–NYSECHX–2019–05]

Self-Regulatory Organizations; NYSE Chicago, Inc.; Notice of Filing and Immediate Effectiveness of Proposed Rule Change To Extend the Pilot Related to Article 20, Rule 2, Trading Halts Due to Extraordinary Market Volatility

April 9, 2019.

Pursuant to Section 19(b)(1) [1] of the Securities Exchange Act of 1934 (the ''Act'') [2] and Rule 19b–4 thereunder,[3] notice is hereby given that, on April 5, 2019, the NYSE Chicago, Inc. (''NYSE Chicago'' or the ''Exchange'') filed with the Securities and Exchange Commission (the ''Commission'') the proposed rule change as described in Items I and II below, which Items have been prepared by the self-regulatory organization. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to extend the pilot related to Article 20, Rule 2, Trading Halts Due to Extraordinary Market Volatility, to the close of business on October 18, 2019. The proposed rule change is available on the Exchange's website at *www.nyse.com,* at the principal office of the Exchange, and at the Commission's Public Reference Room.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the self-regulatory organization included statements concerning the purpose of, and basis for, the proposed rule change and discussed any comments it received on the proposed rule change. The text of those statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant parts of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

Article 20, Rule 2 provides a methodology for determining when to halt trading in all stocks due to extraordinary market volatility, *i.e.,* market-wide circuit breakers. The market-wide circuit breaker mechanism under Rule 2 was approved by the Commission to operate on a pilot basis, the term of which was to coincide with the pilot period for the Plan to Address Extraordinary Market Volatility Pursuant to Rule 608 of Regulation NMS (the '' LULD Plan''),[4] including any extensions to the pilot period for the LULD Plan.[5] The Commission published an amendment to the LULD Plan for it to operate on a permanent, rather than pilot, basis.[6]

The Exchange proposes to amend Rule 2 to untie the pilot's effectiveness from that of the LULD Plan and to extend the pilot's effectiveness to the close of business on October 18, 2019. The Exchange does not propose any additional changes to Rule 2.

Market-wide circuit breakers under Rule 2 provide an important, automatic mechanism that is invoked to promote

[17] 17 CFR 200.30–3(a)(12).

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] *See* Securities Exchange Act Release No. 85170 (Feb. 21, 2019), 84 FR 6451.

[4] 15 U.S.C. 78s(b)(2).

[5] *Id.*

[6] 17 CFR 200.30–3(a)(31).

[1] 15 U.S.C. 78s(b)(1).

[2] 15 U.S.C. 78a.

[3] 17 CFR 240.19b–4.

[4] *See* Securities Exchange Act Release No. 67091 (May 31, 2012), 77 FR 33498 (June 6, 2012) (the ''Limit Up-Limit Down Release'').

[5] *See* Securities Exchange Act Release Nos. 67090 (May 31, 2012), 77 FR 33531 (June 6, 2012) (SR–CHX–2011–30) (Approval Order); and 68777 (January 31, 2013), 78 FR 8673 (February 6, 2013) (SR–CHX–2013–04) (Notice of Filing and Immediate Effectiveness of Proposed Rule Change Delaying the Operative Date of Rule 2 to April 8, 2013).

[6] *See* Securities Exchange Act Release Nos. 84843 (December 18, 2018), 83 FR 66464 (December 26, 2018) (Amendment No. 18 Proposing Release).

stability and investor confidence during a period of significant stress when securities markets experience extreme broad-based declines. All U.S. equity exchanges have rules relating to market-wide circuit breakers, which are designed to slow the effects of extreme price movement through coordinated trading halts across securities markets when severe price declines reach levels that may exhaust market liquidity. Market-wide circuit breakers provide for trading halts in all equities and options markets during a severe market decline as measured by a single-day decline in the S&P 500 Index.

Pursuant to Rule 2, a market-wide trading halt will be triggered if the S&P 500 Index declines in price by specified percentages from the prior day's closing price of that index. Currently, the triggers are set at three circuit breaker thresholds: 7% (Level 1), 13% (Level 2) and 20% (Level 3). A market decline that triggers a Level 1 or Level 2 circuit breaker after 9:30 a.m. ET and before 3:25 p.m. ET would halt market-wide trading for 15 minutes, while a similar market decline at or after 3:25 p.m. ET would not halt market-wide trading. A market decline that triggers a Level 3 circuit breaker, at any time during the trading day, would halt market-wide trading for the remainder of the trading day.

The Exchange intends to file a separate proposed rule change with the Commission to operate Rule 2 on a permanent, rather than pilot, basis. Extending the effectiveness of Rule 2 to the close of business on October 18, 2019 should provide the Commission adequate time to consider whether to approve the Exchange's separate proposal to operate the market-wide circuit breaker mechanism under Rule 2 on a permanent basis.

2. Statutory Basis

The Exchange believes that its proposal is consistent with the requirements of Sections 6(b) [7] and 6(b)(5) of the Act,[8] in particular, because it would promote just and equitable principles of trade, remove impediments to, and perfect the mechanism of, a free and open market and a national market system. The Exchange also believes that the proposed rule change promotes just and equitable principles of trade in that it promotes transparency and uniformity across markets concerning when and how to halt trading in all stocks as a result of extraordinary market volatility. Extending the market-wide circuit breaker pilot under Rule 2 an additional six months would ensure the continued, uninterrupted operation of a consistent mechanism to halt trading across the U.S. markets while the Commission considers whether to approve the pilot on a permanent basis. The proposed rule change would thus promote fair and orderly markets and the protection of investors and the public interest. Based on the foregoing, the Exchange believes the benefits to market participants from the market-wide circuit breaker mechanism under Rule 2 should continue on a pilot basis while the Commission considers whether to permanently approve Rule 2.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change implicates any competitive issues because the proposal would ensure the continued, uninterrupted operation of a consistent mechanism to halt trading across the U.S. markets while the Commission considers whether to permanently approve the market-wide circuit breaker mechanism under Rule 2. Further, the Exchange understands that FINRA and other national securities exchanges will file proposals to extend their rules regarding the market-wide circuit breaker pilot so that the market-wide circuit breaker mechanism may continue uninterrupted while the Commission considers whether to approve its operation on a permanent basis.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

No written comments were solicited or received with respect to the proposed rule change.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Because the foregoing proposed rule change does not: (i) Significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative for 30 days from the date on which it was filed, or such shorter time as the Commission may designate, it has become effective pursuant to Section 19(b)(3)(A) of the Act [9] and Rule 19b–4(f)(6) thereunder.[10]

A proposed rule change filed under Rule 19b–4(f)(6) [11] normally does not become operative for 30 days after the date of filing. However, pursuant to Rule 19b–4(f)(6)(iii),[12] the Commission may designate a shorter time if such action is consistent with the protection of investors and the public interest. The Exchange has asked the Commission to waive the 30-day operative delay so that the proposal may become operative upon filing. Extending the pilot for an additional six months will allow the uninterrupted operation of the existing pilot to halt trading across the U.S. markets while the Commission considers whether to approve the pilot on a permanent basis. The extension simply maintains the status quo. Therefore, the Commission believes that waiving the 30-day operative delay is consistent with the protection of investors and the public interest. The Commission hereby designates the proposed rule change to be operative upon filing.[13]

At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov.* Please include File Number SR–NYSECHX–2019–05 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.

All submissions should refer to File Number SR–NYSECHX–2019–05. This file number should be included on the

[7] 15 U.S.C. 78f(b).

[8] 15 U.S.C. 78f(b)(5).

[9] 15 U.S.C. 78s(b)(3)(A).

[10] 17 CFR 240.19b–4(f)(6).

[11] *Id.*

[12] 17 CFR 240.19b–4(f)(g)(iii).

[13] For purposes only of waiving the 30-day operative delay, the Commission has also considered the proposed rule's impact on efficiency, competition, and capital formation. *See* 15 U.S.C. 78c(f).

subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549 on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–NYSECHX–2019–05, and should be submitted on or before May 6, 2019.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[14]

Jill M. Peterson,

Assistant Secretary.

[FR Doc. 2019–07372 Filed 4–12–19; 8:45 am]

BILLING CODE 8011–01–P

[14] 17 CFR 200.30–3(a)(12).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–85563; File No. SR–NYSEAMER–2019–11]

Self-Regulatory Organizations; NYSE American LLC; Notice of Filing and Immediate Effectiveness of Proposed Rule Change To Extend the Current Pilot Program Related to Rule 7.10E, Clearly Erroneous Executions

April 9, 2019.

Pursuant to Section 19(b)(1)[1] of the Securities Exchange Act of 1934 (the ''Act'')[2] and Rule 19b–4 thereunder,[3] notice is hereby given that on April 5, 2019, NYSE American LLC (''NYSE American'' or the ''Exchange'') filed with the Securities and Exchange Commission (''Commission'') the proposed rule change as described in Items I and II below, which Items have been prepared by the self-regulatory organization. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

[1] 15 U.S.C. 78s(b)(1).

[2] 15 U.S.C. 78a.

[3] 17 CFR 240.19b–4.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to extend the current pilot program related to Rule 7.10E, Clearly Erroneous Executions, to the close of business on October 18, 2019. The proposed rule change is available on the Exchange's website at *www.nyse.com,* at the principal office of the Exchange, and at the Commission's Public Reference Room.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the self-regulatory organization included statements concerning the purpose of, and basis for, the proposed rule change and discussed any comments it received on the proposed rule change. The text of those statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant parts of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The purpose of the proposed rule change is to extend the current pilot program related to Rule 7.10E, Clearly Erroneous Executions, to the close of business on October 18, 2019. This change is being proposed in connection with proposed amendments to the Plan to Address Extraordinary Market Volatility (the ''Limit Up-Limit Down Plan'' or the ''Plan'') that would allow the Plan to continue to operate on a permanent basis.[4]

On September 10, 2010, the Commission approved, on a pilot basis, changes to Rule 7.10E that, among other things: (i) Provided for uniform treatment of clearly erroneous execution reviews in multi-stock events involving twenty or more securities; and (ii) reduced the ability of the Exchange to deviate from the objective standards set forth in the rule.[5] In 2013, the Exchange adopted a provision designed to address the operation of the Plan.[6] Finally, in 2014, the Exchange adopted two additional provisions providing that: (i) A series of transactions in a particular security on one or more trading days may be viewed as one event if all such transactions were effected based on the same fundamentally incorrect or grossly misinterpreted issuance information resulting in a severe valuation error for all such transactions; and (ii) in the event of any disruption or malfunction in the operation of the electronic communications and trading facilities of an Exchange, another SRO, or responsible single plan processor in connection with the transmittal or receipt of a trading halt, an Officer, acting on his or her own motion, shall nullify any transaction that occurs after a trading halt has been declared by the primary listing market for a security and before such trading halt has officially ended according to the primary listing market.[7] These changes are currently scheduled to operate for a pilot period that coincides with the pilot period for the Limit Up-Limit Down Plan,[8] including any extensions to the pilot period for the Plan.[9]

The Commission recently published the proposed Eighteenth Amendment to the Plan to allow the Plan to operate on a permanent, rather than pilot, basis. The Exchange proposes to amend Rule 7.10E to untie the pilot program's effectiveness from that of the Plan and to extend the pilot's effectiveness to the close of business on October 18, 2019—*i.e.,* six months after the expiration of the current pilot period for the Plan. If the pilot period is not either extended, replaced or approved as permanent, the prior versions of paragraphs (c), (e)(2), (f), and (g) shall be in effect, and the provisions of paragraphs (i) through (k) shall be null and void.[10] In such an

[4] *See* Securities Exchange Act Release No. 84843 (December 18, 2018), 83 FR 66464 (December 26, 2018) (File No. 4–631) (''Eighteenth Amendment'').

[5] *See* Securities Exchange Act Release No. 62886 (Sept. 10, 2010), 75 FR 56613 (Sept. 16, 2010) (SR–NYSEAmer–2010–60).

[6] *See* Securities Exchange Act Release No. 68801 (Feb. 1, 2013), 78 FR 8630 (Feb. 6, 2013) (SR–NYSEMKT–2013–11).

[7] *See* Securities Exchange Act Release No. 72434 (June 19, 2014), 79 FR 36110 (June 25, 2014) (SR–NYSEMKT–2014–37).

[8] *See* Securities Exchange Act Release No. 67091 (May 31, 2012), 77 FR 33498 (June 6, 2012) (the ''Limit Up-Limit Down Release'').

[9] *See* Securities Exchange Act Release No. 71820 (March 27, 2014), 79 FR 18595 (April 2, 2014) (SR–NYSEMKT–2014–28).

[10] *See* supra notes 6–8. The prior versions of paragraphs (c), (e)(2), (f), and (g) generally provided

Continued

event, the remaining sections of Rule 7.10E would continue to apply to all transactions executed on the Exchange. The Exchange understands that the other national securities exchanges and Financial Industry Regulatory Authority (''FINRA'') will also file similar proposals to extend their respective clearly erroneous execution pilot programs, the substance of which are identical to Rule 7.10E.

The Exchange does not propose any additional changes to Rule 7.10E. The Exchange believes the benefits to market participants from the more objective clearly erroneous executions rule should continue on a limited six month pilot basis after Commission approves the Plan to operate on a permanent basis. Assuming the Plan is approved by the Commission to operate on a permanent, rather than pilot, basis the Exchange intends to assess whether additional changes should also be made to the operation of the clearly erroneous execution rules. Extending the effectiveness of Rule 7.10E for an additional six months should provide the Exchange and other national securities exchanges additional time to consider further amendments to the clearly erroneous execution rules in light of the proposed Eighteenth Amendment to the Plan.

2. Statutory Basis

The Exchange believes the proposed rule change is consistent with the requirements of Section 6(b) of the Act,[11] in general, and Section 6(b)(5) of the Act,[12] in particular, in that it is designed to remove impediments to and perfect the mechanism of a free and open market and a national market system, to promote just and equitable principles of trade, and, in general, to protect investors and the public interest and not to permit unfair discrimination between customers, issuers, brokers, or dealers. The Exchange believes that the proposed rule change promotes just and equitable principles of trade in that it promotes transparency and uniformity across markets concerning review of transactions as clearly erroneous. The Exchange believes that extending the clearly erroneous execution pilot under Rule 7.10E for an additional six months would help assure that the determination of whether a clearly erroneous trade has occurred will be based on clear and objective criteria, and that the resolution of the incident will occur promptly through a transparent process. The proposed rule change would also help assure consistent results in handling erroneous trades across the U.S. equities markets, thus furthering fair and orderly markets, the protection of investors and the public interest. Based on the foregoing, the Exchange believes the amended clearly erroneous executions rule should continue to be in effect on a pilot basis while the Exchange and the other national securities exchanges consider and develop a permanent proposal for clearly erroneous execution reviews.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change would impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act. The proposal would ensure the continued, uninterrupted operation of harmonized clearly erroneous execution rules across the U.S. equities markets while the Exchange and other national securities exchanges consider further amendments to these rules in light of the proposed Eighteenth Amendment to the Plan. The Exchange understands that the other national securities exchanges and FINRA will also file similar proposals to extend their respective clearly erroneous execution pilot programs. Thus, the proposed rule change will help to ensure consistency across market centers without implicating any competitive issues.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

No written comments were solicited or received with respect to the proposed rule change.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Because the foregoing proposed rule change does not: (i) Significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative for 30 days from the date on which it was filed, or such shorter time as the Commission may designate, it has become effective pursuant to Section 19(b)(3)(A) of the Act[13] and Rule 19b–4(f)(6) thereunder.[14]

A proposed rule change filed under Rule 19b–4(f)(6)[15] normally does not become operative prior to 30 days after the date of the filing. However, Rule 19b–4(f)(6)(iii)[16] permits the Commission to designate a shorter time if such action is consistent with the protection of investors and the public interest. The Exchange has asked the Commission to waive the 30-day operative delay so that the proposed rule change may become effective and operative immediately upon filing. The Commission believes that waiving the 30-day operative delay is consistent with the protection of investors and the public interest, as it will allow the current clearly erroneous execution pilot program to continue uninterrupted, without any changes, while the Exchange and the other national securities exchanges consider and develop a permanent proposal for clearly erroneous execution reviews. For this reason, the Commission hereby waives the 30-day operative delay requirement and designates the proposed rule change as operative upon filing.[17]

At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule change should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml);* or
- Send an email to *rule-comments@sec.gov.* Please include File Number SR–

greater discretion to the Exchange with respect to breaking erroneous trades.

[11] 15 U.S.C. 78f(b).

[12] 15 U.S.C. 78f(b)(5).

[13] 15 U.S.C. 78s(b)(3)(A).

[14] 17 CFR 240.19b–4(f)(6). As required under Rule 19b–4(f)(6)(iii), the Exchange provided the Commission with written notice of its intent to file the proposed rule change, along with a brief description and the text of the proposed rule change, at least five business days prior to the date of filing of the proposed rule change, or such shorter time as designated by the Commission.

[15] 17 CFR 240.19b–4(f)(6).

[16] 17 CFR 240.19b–4(f)(6)(iii).

[17] For purposes only of waiving the 30-day operative delay, the Commission also has considered the proposed rule's impact on efficiency, competition, and capital formation. *See* 15 U.S.C. 78c(f).

NYSEAMER–2019–11 on the subject line.

Paper Comments

• Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.

All submissions should refer to File Number SR–NYSEAMER–2019–11. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–NYSEAMER–2019–11 and should be submitted on or before May 6, 2019.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[18]

Jill M. Peterson,

Assistant Secretary.

[FR Doc. 2019–07374 Filed 4–12–19; 8:45 am]

BILLING CODE 8011–01–P

[18] 17 CFR 200.30–3(a)(12).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–85568; File No. SR–EMERALD–2019–17]

Self-Regulatory Organizations; MIAX Emerald, LLC; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend Exchange Rule 530, Limit Up-Limit Down, and Exchange Rule 521, Nullification and Adjustment of Options Transactions

April 9, 2019.

Pursuant to the provisions of Section 19(b)(1) of the Securities Exchange Act of 1934 (''Act'')[1] and Rule 19b–4 thereunder,[2] notice is hereby given that on April 5, 2019, MIAX Emerald, LLC (''MIAX Emerald'' or ''Exchange'') filed with the Securities and Exchange Commission (''Commission'') a proposed rule change as described in Items I and II below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange is filing a proposal to amend (i) Exchange Rule 530, Limit Up-Limit Down, and (ii) Exchange Rule 521, Nullification and Adjustment of Options Transactions Including Obvious Errors, Interpretations and Policies .01, to extend the pilot to the close of business on October 18, 2019, for certain options market rules that are linked to the equity market Plan to Address Extraordinary Market Volatility.

The text of the proposed rule change is available on the Exchange's website at *http://www.miaxoptions.com/rule-filings/emerald* at MIAX Emerald's principal office, and at the Commission's Public Reference Room.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The purpose of the proposed rule change is to extend the pilot to the close of business on October 18, 2019, for certain options market rules that are linked to the equity market Plan to Address Extraordinary Market Volatility (the ''Limit Up-Limit Down Plan'' or the ''Plan''). This change is being proposed in connection with a proposed amendment to the Limit Up-Limit Down Plan that would allow the Plan to continue to operate on a permanent basis (''Amendment 18'').

In an attempt to address extraordinary market volatility in NMS Stock, and, in particular, events like the severe volatility on May 6, 2010, U.S. national securities exchanges and the Financial Industry Regulatory Authority, Inc. (collectively, ''Participants'') drafted the Plan pursuant to Rule 608 of Regulation NMS and under the Act.[3] On May 31, 2012, the Commission approved the Plan, as amended, on a one-year pilot basis.[4]

The Commission recently published an Amendment 18, which would allow the Plan to operate on a permanent, rather than pilot, basis.[5] In connection with this change, the Exchange proposes to amend the Options Pilots to expire at the close of business on October 18, 2019—*i.e.,* six months after the expiration of the current pilot period for the Plan. Specifically, the Exchange proposes to amend Exchange Rule 530 and Rule 521, Interpretation and Policy .01 to untie the Options Pilot's effectiveness from that of the Plan and to extend the Options Pilot's effectiveness to the close of business on October 18, 2019. The Exchange understands that the other national securities exchanges will also file similar proposals to extend their respective pilot programs, the substance of which are identical to the proposal.

The Exchange does not propose any additional changes to Exchange Rules 530 or Rule 521, Interpretation and Policy .01. The Exchange believes the benefits to market participants from the Options Pilots should continue on a limited six month pilot basis after Commission approves the Plan to

[3] *See* Securities Exchange Act Release No. 64547 (May 25, 2011), 76 FR 31647 (June 1, 2011) (File No. 4–631).

[4] *See* Securities and Exchange Act Release No. 67091 (May 31, 2012), 77 FR 33498 (June 6, 2012).

[5] *See* Securities Exchange Act Release Nos. 84843 (December 18, 2018), 83 FR 66464 (December 26, 2018) (Amendment No. 18 Proposing Release).

operate on a permanent basis. Assuming the Plan is approved by the Commission to operate on a permanent, rather than pilot, basis the Exchange intends to assess whether additional changes should also be made to the Options Pilots. Extending the Options Pilots for an additional six months should provide the Exchange and other national securities exchanges additional time to consider further amendments to their rules in light of proposed Amendment 18.

2. Statutory Basis

The Exchange believes that its proposed rule change is consistent with Section 6(b) of the Act [6] in general, and furthers the objectives of Section 6(b)(5) of the Act [7] in particular, in that it is designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in facilitating transactions in securities, to remove impediments to and perfect the mechanisms of a free and open market and a national market system and, in general, to protect investors and the public interest and not to permit unfair discrimination between customers, issuers, brokers, or dealers. The Exchange believes that the proposed rule change promotes just and equitable principles of trade in that it promotes transparency and uniformity across markets concerning rules for options markets adopted to coincide with the Plan. The Exchange believes that extending the Options Pilots for an additional six months would help assure that the rules subject to such Pilots are either similarly made permanent, amended or removed, following additional discussion and analysis by the Exchange and other national securities exchanges. The proposed rule change would also help assure that such rules are not immediately eliminated, thus furthering fair and orderly markets, the protection of investors and the public interest. Based on the foregoing, the Exchange believes the Options Pilots should continue to be in effect on a pilot basis while the Exchange and the other national securities exchanges consider and develop a permanent proposal for such rules.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act. The proposal would ensure the continued, uninterrupted operation of the Options Pilots while the Exchange and other national securities exchanges consider further amendments to these rules in light of proposed Amendment 18. The Exchange understands that the other national securities exchanges will also file similar proposals to extend their respective pilot programs, the substance of which are identical to this proposal. Thus, the proposed rule change will help to ensure consistency across market centers without implicating any competitive issues.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

Written comments were neither solicited nor received.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Because the foregoing proposed rule change does not: (i) Significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative for 30 days from the date on which it was filed, or such shorter time as the Commission may designate, it has become effective pursuant to Section 19(b)(3)(A)(iii) of the Act [8] and subparagraph (f)(6) of Rule 19b–4 thereunder.[9]

A proposed rule change filed under Rule 19b–4(f)(6) [10] normally does not become operative prior to 30 days after the date of the filing. However, Rule 19b–4(f)(6)(iii) [11] permits the Commission to designate a shorter time if such action is consistent with the protection of investors and the public interest. The Exchange has asked the Commission to waive the 30-day operative delay so that the proposed rule change may become effective and operative immediately upon filing. The Commission believes that waiving the 30-day operative delay is consistent with the protection of investors and the public interest, as it will allow the current options pilots linked to the Plan to continue uninterrupted, without any changes, while the Exchange and the other national securities exchanges consider and develop a permanent proposal for these options pilots. For this reason, the Commission hereby waives the 30-day operative delay and designates the proposed rule change as operative upon filing.[12]

At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is: (i) Necessary or appropriate in the public interest; (ii) for the protection of investors; or (iii) otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov.* Please include File Number SR–EMERALD–2019–17 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.

All submissions should refer to File Number SR–EMERALD–2019–17. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the

[6] 15 U.S.C. 78f(b).

[7] 15 U.S.C. 78f(b)(5).

[8] 15 U.S.C. 78s(b)(3)(A)(iii).

[9] 17 CFR 240.19b–4(f)(6). In addition, Rule 19b–4(f)(6)(iii) requires a self-regulatory organization to give the Commission written notice of its intent to file the proposed rule change, along with a brief description and text of the proposed rule change, at least five business days prior to the date of filing of the proposed rule change, or such shorter time as designated by the Commission. The Exchange has satisfied this requirement.

[10] 17 CFR 240.19b–4(f)(6).

[11] 17 CFR 240.19b–4(f)(6)(iii).

[12] For purposes only of waiving the 30-day operative delay, the Commission has also considered the proposed rule's impact on efficiency, competition, and capital formation. *See* 15 U.S.C. 78c(f).

public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–EMERALD–2019–17 and should be submitted on or before May 6, 2019.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[13]

Jill M. Peterson,

Assistant Secretary.

[FR Doc. 2019–07368 Filed 4–12–19; 8:45 am]

BILLING CODE 8011–01–P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–85567; File No. SR–MIAX–2019–19]

Self-Regulatory Organizations; Miami International Securities Exchange, LLC; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend Exchange Rule 530, Limit Up-Limit Down, and Exchange Rule 521, Nullification and Adjustment of Options Transactions Including Obvious Errors

April 9, 2019.

Pursuant to the provisions of Section 19(b)(1) of the Securities Exchange Act of 1934 (''Act'')[1] and Rule 19b–4 thereunder,[2] notice is hereby given that on April 5, 2019, Miami International Securities Exchange, LLC (''MIAX Options'' or the ''Exchange'') filed with the Securities and Exchange Commission (''Commission'') a proposed rule change as described in Items I and II below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange is filing a proposal to amend (i) Exchange Rule 530, Limit Up-Limit Down, and (ii) Exchange Rule 521, Nullification and Adjustment of Options Transactions Including Obvious Errors, Interpretations and Policies .01, to extend the pilot to the close of business on October 18, 2019, for certain options market rules that are linked to the equity market Plan to Address Extraordinary Market Volatility.

The text of the proposed rule change is available on the Exchange's website at *http://www.miaxoptions.com/rule-filings/* at MIAX Options' principal office, and at the Commission's Public Reference Room.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The purpose of the proposed rule change is to extend the pilot to the close of business on October 18, 2019, for certain options market rules that are linked to the equity market Plan to Address Extraordinary Market Volatility (the ''Limit Up-Limit Down Plan'' or the ''Plan''). This change is being proposed in connection with a proposed amendment to the Limit Up-Limit Down Plan that would allow the Plan to continue to operate on a permanent basis (''Amendment 18'').

In an attempt to address extraordinary market volatility in NMS Stock, and, in particular, events like the severe volatility on May 6, 2010, U.S. national securities exchanges and the Financial Industry Regulatory Authority, Inc. (collectively, ''Participants'') drafted the Plan pursuant to Rule 608 of Regulation NMS and under the Act.[3] On May 31, 2012, the Commission approved the Plan, as amended, on a one-year pilot basis.[4] Though the Plan was primarily designed for equity markets, the Exchange believed it would, indirectly, potentially impact the options markets as well. Thus, the Exchange has previously amended and adopted Rule 530, and Rule 521, Interpretation and Policy .01 to ensure the option markets were not harmed as a result of the Plan's implementation and has implemented such rules on a pilot basis that has coincided with the pilot period for the Plan (the ''Options Pilots'').[5]

The Commission recently published an Amendment 18, which would allow the Plan to operate on a permanent, rather than pilot, basis.[6] In connection with this change, the Exchange proposes to amend the Options Pilots to expire at the close of business on October 18, 2019—*i.e.,* six months after the expiration of the current pilot period for the Plan. Specifically, the Exchange proposes to amend Exchange Rule 530 and Rule 521, Interpretation and Policy .01 to untie the Options Pilot's effectiveness from that of the Plan and to extend the Options Pilot's effectiveness to the close of business on October 18, 2019. The Exchange understands that the other national securities exchanges will also file similar proposals to extend their respective pilot programs, the substance of which are identical to the proposal.

The Exchange does not propose any additional changes to Exchange Rules 530 or Rule 521, Interpretation and Policy .01. The Exchange believes the benefits to market participants from the Options Pilots should continue on a limited six month pilot basis after Commission approves the Plan to operate on a permanent basis. Assuming the Plan is approved by the Commission to operate on a permanent, rather than pilot, basis the Exchange intends to assess whether additional changes should also be made to the Options Pilots. Extending the Options Pilots for an additional six months should provide the Exchange and other national securities exchanges additional time to consider further amendments to their rules in light of proposed Amendment 18.

[13] 17 CFR 200.30–3(a)(12).

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] *See* Securities Exchange Act Release No. 64547 (May 25, 2011), 76 FR 31647 (June 1, 2011) (File No. 4–631).

[4] *See* Securities and Exchange Act Release No. 67091 (May 31, 2012) 77 FR 33498 (June 6, 2012).

[5] *See* Securities Exchange Act Release Nos. 69342 (April 8, 2013), 78 FR 22017 (April 12, 2013) (SR–MIAX–2013–12) and 74918 (May 8, 2015), 80 FR 27781 (May 14, 2015) (SR–MIAX–2015–35).

[6] *See* Securities Exchange Act Release Nos. 84843 (December 18, 2018), 83 FR 66464 (December 26, 2018) (Amendment No. 18 Proposing Release).

2. Statutory Basis

The Exchange believes that its proposed rule change is consistent with Section 6(b) of the Act [7] in general, and furthers the objectives of Section 6(b)(5) of the Act [8] in particular, in that it is designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in facilitating transactions in securities, to remove impediments to and perfect the mechanisms of a free and open market and a national market system and, in general, to protect investors and the public interest and not to permit unfair discrimination between customers, issuers, brokers, or dealers. The Exchange believes that the proposed rule change promotes just and equitable principles of trade in that it promotes transparency and uniformity across markets concerning rules for options markets adopted to coincide with the Plan. The Exchange believes that extending the Options Pilots for an additional six months would help assure that the rules subject to such Pilots are either similarly made permanent, amended or removed, following additional discussion and analysis by the Exchange and other national securities exchanges. The proposed rule change would also help assure that such rules are not immediately eliminated, thus furthering fair and orderly markets, the protection of investors and the public interest. Based on the foregoing, the Exchange believes the Options Pilots should continue to be in effect on a pilot basis while the Exchange and the other national securities exchanges consider and develop a permanent proposal for such rules.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act. The proposal would ensure the continued, uninterrupted operation of the Options Pilots while the Exchange and other national securities exchanges consider further amendments to these rules in light of proposed Amendment 18. The Exchange understands that the other national securities exchanges will also file similar proposals to extend their respective pilot programs, the substance of which are identical to this proposal. Thus, the proposed rule change will help to ensure consistency across market centers without implicating any competitive issues.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

Written comments were neither solicited nor received.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Because the foregoing proposed rule change does not: (i) Significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative for 30 days from the date on which it was filed, or such shorter time as the Commission may designate, it has become effective pursuant to Section 19(b)(3)(A)(iii) of the Act [9] and subparagraph (f)(6) of Rule 19b–4 thereunder.[10]

A proposed rule change filed under Rule 19b–4(f)(6) [11] normally does not become operative prior to 30 days after the date of the filing. However, Rule 19b–4(f)(6)(iii) [12] permits the Commission to designate a shorter time if such action is consistent with the protection of investors and the public interest. The Exchange has asked the Commission to waive the 30-day operative delay so that the proposed rule change may become effective and operative immediately upon filing. The Commission believes that waiving the 30-day operative delay is consistent with the protection of investors and the public interest, as it will allow the current Options Pilots to continue uninterrupted, without any changes, while the Exchange and the other national securities exchanges consider and develop a permanent proposal for Options Pilots. For this reason, the Commission hereby waives the 30-day operative delay and designates the proposed rule change as operative upon filing.[13]

At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is: (i) Necessary or appropriate in the public interest; (ii) for the protection of investors; or (iii) otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov*. Please include File Number SR–MIAX–2019–19 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.

All submissions should refer to File Number SR–MIAX–2019–19. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit

[7] 15 U.S.C. 78f(b).

[8] 15 U.S.C. 78f(b)(5).

[9] 15 U.S.C. 78s(b)(3)(A)(iii).

[10] 17 CFR 240.19b–4(f)(6). In addition, Rule 19b–4(f)(6)(iii) requires a self-regulatory organization to give the Commission written notice of its intent to file the proposed rule change, along with a brief description and text of the proposed rule change, at least five business days prior to the date of filing of the proposed rule change, or such shorter time as designated by the Commission. The Exchange has satisfied this requirement.

[11] 17 CFR 240.19b–4(f)(6).

[12] 17 CFR 240.19b–4(f)(6)(iii).

[13] For purposes only of waiving the 30-day operative delay, the Commission has also considered the proposed rule's impact on efficiency, competition, and capital formation. *See* 15 U.S.C. 78c(f).

personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–MIAX–2019–19 and should be submitted on or before May 6, 2019.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[14]

Jill M. Peterson,

Assistant Secretary.

[FR Doc. 2019–07369 Filed 4–12–19; 8:45 am]

BILLING CODE 8011–01–P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–85560; File No. SR–NYSE–2019–19]

Self-Regulatory Organizations; New York Stock Exchange LLC; Notice of Filing and Immediate Effectiveness of Proposed Rule Change To Extend the Pilot Related to Rule 80B, Trading Halts Due to Extraordinary Market Volatility

April 9, 2019.

Pursuant to Section 19(b)(1)[1] of the Securities Exchange Act of 1934 (the ''Act'')[2] and Rule 19b–4 thereunder,[3] notice is hereby given that on April 5, 2019, New York Stock Exchange LLC (''NYSE'' or the ''Exchange'') filed with the Securities and Exchange Commission (the ''Commission'') the proposed rule change as described in Items I and II below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to extend the pilot related to Rule 80B, Trading Halts Due to Extraordinary Market Volatility, to the close of business on October 18, 2019. The proposed rule change is available on the Exchange's website at *www.nyse.com,* at the principal office of the Exchange, and at the Commission's Public Reference Room.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the self-regulatory organization included statements concerning the purpose of, and basis for, the proposed rule change and discussed any comments it received on the proposed rule change. The text of those statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant parts of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

Rule 80B provides a methodology for determining when to halt trading in all stocks due to extraordinary market volatility, *i.e.,* market-wide circuit breakers. The market-wide circuit breaker mechanism under Rule 80B was approved by the Commission to operate on a pilot basis, the term of which was to coincide with the pilot period for the Plan to Address Extraordinary Market Volatility Pursuant to Rule 608 of Regulation NMS (the ''LULD Plan''),[4] including any extensions to the pilot period for the LULD Plan.[5] The Commission published an amendment to the LULD Plan for it to operate on a permanent, rather than pilot, basis.[6]

The Exchange proposes to amend Rule 80B to untie the pilot's effectiveness from that of the LULD Plan and to extend the pilot's effectiveness to the close of business on October 18, 2019. The Exchange does not propose any additional changes to Rule 80B.

Market-wide circuit breakers under Rule 80B provide an important, automatic mechanism that is invoked to promote stability and investor confidence during a period of significant stress when securities markets experience extreme broad-based declines. All U.S. equity exchanges have rules relating to market-wide circuit breakers, which are designed to slow the effects of extreme price movement through coordinated trading halts across securities markets when severe price declines reach levels that may exhaust market liquidity. Market-wide circuit breakers provide for trading halts in all equities and options markets during a severe market decline as measured by a single-day decline in the S&P 500 Index.

Pursuant to Rule 80B, a market-wide trading halt will be triggered if the S&P 500 Index declines in price by specified percentages from the prior day's closing price of that index. Currently, the triggers are set at three circuit breaker thresholds: 7% (Level 1), 13% (Level 2) and 20% (Level 3). A market decline that triggers a Level 1 or Level 2 circuit breaker after 9:30 a.m. ET and before 3:25 p.m. ET would halt market-wide trading for 15 minutes, while a similar market decline at or after 3:25 p.m. ET would not halt market-wide trading. A market decline that triggers a Level 3 circuit breaker, at any time during the trading day, would halt market-wide trading for the remainder of the trading day.

The Exchange intends to file a separate proposed rule change with the Commission to operate Rule 80B on a permanent, rather than pilot, basis. Extending the effectiveness of Rule 80B to the close of business on October 18, 2019 should provide the Commission adequate time to consider whether to approve the Exchange's separate proposal to operate the market-wide circuit breaker mechanism under Rule 80B on a permanent basis.

2. Statutory Basis

The Exchange believes that its proposal is consistent with the requirements of Sections 6(b)[7] and 6(b)(5) of the Act,[8] in particular, because it would promote just and equitable principles of trade, remove impediments to, and perfect the mechanism of, a free and open market and a national market system. The Exchange also believes that the proposed rule change promotes just and equitable principles of trade in that it promotes transparency and uniformity across markets concerning when and how to halt trading in all stocks as a result of extraordinary market volatility. Extending the market-wide circuit breaker pilot under Rule 80B an additional six months would ensure the continued, uninterrupted operation of a consistent mechanism to halt trading across the U.S. markets while the Commission considers whether to approve the pilot on a permanent basis. The proposed rule change would thus promote fair and orderly markets and the protection of investors and the public interest. Based on the foregoing, the Exchange believes the benefits to market participants from the market-

[14] 17 CFR 200.30–3(a)(12).

[1] 15 U.S.C. 78s(b)(1).

[2] 15 U.S.C. 78a.

[3] 17 CFR 240.19b–4.

[4] *See* Securities Exchange Act Release No. 67091 (May 31, 2012), 77 FR 33498 (June 6, 2012) (the ''Limit Up-Limit Down Release'').

[5] *See* Securities Exchange Act Release Nos. 67090 (May 31, 2012), 77 FR 33531 (June 6, 2012) (SR–NYSE–2011–48) (Approval Order); and 68784 (January 31, 2013), 78 FR 8662 (February 6, 2013) (SR–NYSE–2013–10) (Notice of Filing and Immediate Effectiveness of Proposed Rule Change Delaying the Operative Date of Rule 80B to April 8, 2013).

[6] *See* Securities Exchange Act Release Nos. 84843 (December 18, 2018), 83 FR 66464 (December 26, 2018) (Amendment No. 18 Proposing Release).

[7] 15 U.S.C. 78f(b).

[8] 15 U.S.C. 78f(b)(5).

wide circuit breaker mechanism under Rule 80B should continue on a pilot basis while the Commission considers whether to permanently approve Rule 80B.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change implicates any competitive issues because the proposal would ensure the continued, uninterrupted operation of a consistent mechanism to halt trading across the U.S. markets while the Commission considers whether to permanently approve the market-wide circuit breaker mechanism under Rule 80B. Further, the Exchange understands that FINRA and other national securities exchanges will file proposals to extend their rules regarding the market-wide circuit breaker pilot so that the market-wide circuit breaker mechanism may continue uninterrupted while the Commission considers whether to approve its operation on a permanent basis.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

No written comments were solicited or received with respect to the proposed rule change.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Because the foregoing proposed rule change does not: (i) Significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative for 30 days from the date on which it was filed, or such shorter time as the Commission may designate, it has become effective pursuant to Section 19(b)(3)(A) of the Act [9] and Rule 19b–4(f)(6) thereunder.[10]

A proposed rule change filed under Rule 19b–4(f)(6) [11] normally does not become operative for 30 days after the date of filing. However, pursuant to Rule 19b–4(f)(6)(iii),[12] the Commission may designate a shorter time if such action is consistent with the protection of investors and the public interest. The Exchange has asked the Commission to waive the 30-day operative delay so that the proposal may become operative upon filing. Extending the pilot for an additional six months will allow the uninterrupted operation of the existing pilot to halt trading across the U.S. markets while the Commission considers whether to approve the pilot on a permanent basis. The extension simply maintains the status quo. Therefore, the Commission believes that waiving the 30-day operative delay is consistent with the protection of investors and the public interest. The Commission hereby designates the proposed rule change to be operative upon filing.[13]

At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov.* Please include File Number SR–NYSE–2019–19 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.

All submissions should refer to File Number SR–NYSE–2019–19. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549 on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–NYSE–2019–19, and should be submitted on or before May 6, 2019.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[14]

Jill M. Peterson,

Assistant Secretary.

[FR Doc. 2019–07376 Filed 4–12–19; 8:45 am]

BILLING CODE 8011–01–P

[9] 15 U.S.C. 78s(b)(3)(A).

[10] 17 CFR 240.19b–4(f)(6).

[11] *Id.*

[12] 17 CFR 240.19b–4(f)(g)(iii).

[13] For purposes only of waiving the 30-day operative delay, the Commission has also considered the proposed rule's impact on efficiency, competition, and capital formation. *See* 15 U.S.C. 78c(f).

[14] 17 CFR 200.30–3(a)(12).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–85557; File No. SR–CboeBZX–2019–001]

Self-Regulatory Organizations; Cboe BZX Exchange, Inc.; Notice of Filing of Amendment No. 2 and Order Granting Accelerated Approval of a Proposed Rule Change, as Modified by Amendment No. 2, To List and Trade Under BZX Rule 14.11(c)(3) Shares of the Global X Russell 2000 Covered Call ETF of Global X Funds

April 9, 2019.

I. Introduction

On January 28, 2019, Cboe BZX Exchange, Inc. (''Exchange'' or ''BZX'') filed with the Securities and Exchange Commission (''Commission''), pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (the ''Act'' or the ''Exchange Act'') [1] and Rule 19b–4 thereunder,[2] a proposed rule change to list and trade under BZX Rule 14.11(c)(3) shares of the Global X Russell 2000 Covered Call ETF (''Fund'') of Global X Funds. The proposed rule

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

change was published for comment in the **Federal Register** on February 15, 2019.[3] On March 14, 2019, the Exchange filed Amendment No. 1 to the proposed rule change, which replaced and superseded the proposed rule change as originally filed.[4] On March 21, 2019, the Commission extended the time period within which to approve the proposed rule change, disapprove the proposed rule change, or institute proceedings to determine whether to approve or disapprove the proposed rule change.[5] On April 5, 2019, the Exchange filed Amendment No. 2 to the proposed rule change, which replaced and superseded the proposed rule change as originally filed.[6] The Commission received no comments on the proposed rule change. The Commission is publishing this notice to solicit comments on Amendment No. 2 from interested persons and is approving the proposed rule change, as modified by Amendment No. 2, on an accelerated basis.

II. The Exchange's Description of the Proposed Rule Change, as Modified by Amendment No. 2

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The Exchange proposes to list and trade shares (''Shares'') of the Fund under BZX Rule 14.11(c)(3),[7] which governs the listing and trading of index fund shares based on an index composed of U.S. Component Stocks.[8] The Exchange notes that the Commission has previously approved a fund that employs a very similar strategy.[9]

The Shares are offered by Global X Funds, which is organized as a Delaware statutory trust and is registered with the Commission as an open-end management investment company.[10] The investment adviser and administrator to the Fund is Global X Management Company LLC (the ''Adviser'' or ''Administrator'').[11]

SEI Investments Distribution Co. (the ''Distributor'') is the principal underwriter and distributor of the Shares. Brown Brothers Harriman & Co. (the ''Custodian'' or ''Transfer Agent'') will serve as custodian and transfer agent for the Fund.

The Exchange submits this proposal because the Underlying Index, as defined below, includes options on the Russell 2000 Index. Rule 14.11(c)(3)(A)(i)(e) provides that all securities in the applicable index or portfolio shall be U.S. Component Stocks listed on a national securities exchange and shall be NMS Stocks as defined in Rule 600 under Regulation NMS of the Act. Options are excluded from the definition of U.S. Component Stocks. As such, because the Underlying Index, as defined below, includes options, it does not meet the generic listing standards applicable to Index Fund Shares under Rules 14.11(c)(3)(A)(i)(a)-(e). The Fund and the Underlying Index do, however, meet all other requirements of the listing standards for Index Fund Shares in Rule 14.11(c)(3). The Exchange also notes that each component stock of the Russell 2000 Index is a U.S. Component Stock that is listed on a national securities exchange and is an NMS Stock and that such component stocks of the Russell 2000 Index satisfy the requirements of Rule 14.11(c)(3)(A)(i)(a)-(e).

As described below, the Fund will seek investment results that, before fees and expenses, generally correspond to the performance of the Cboe Russell 2000 BuyWrite Index (the ''Underlying Index'') provided by FTSE Russell (the ''Index Provider'').[12] The Underlying Index measures the performance of a theoretical portfolio that holds a portfolio of the stocks included in the Russell 2000 Index[13] (the ''Reference

[3] *See* Securities Exchange Act Release No. 85099 (February 11, 2019), 84 FR 4584.

[4] Amendment No. 1 to the proposed rule change is available at: *https://www.sec.gov/comments/sr-cboebzx-2019-001/srcboebzx2019001-5145199-183369.pdf.*

[5] *See* Securities Exchange Act Release No. 85388, 84 FR 11597 (March 27, 2019). The Commission designated May 16, 2019, as the date by which the Commission shall approve or disapprove, or institute proceedings to determine whether to disapprove, the proposed rule change.

[6] In Amendment No. 2, the Exchange: (1) Clarified that the Fund and the Underlying Index (as defined below) meet all requirements of the listing standards applicable to index fund shares in BZX Rule 14.11(c)(3), except for Rule 14.11(c)(3)(A)(i)(e); (2) modified the name of the Underlying Index (as defined below); (3) specified that the Fund will invest at least 80% of its total assets in equity components of the Reference Index (as defined below), U.S. exchange-listed ETFs designed to track the Reference Index, U.S. listed options on equities that are components of the Reference Index, U.S. listed options on ETFs designed to track the Reference Index, as well as certain instruments that are either included in the Underlying Index or have economic characteristics that are substantially identical to the economic characteristics of such component securities, either individually or in the aggregate, including only the following: U.S. listed equity index futures, U.S. listed equity index options, and U.S. listed options on U.S. listed equity index futures; (4) clarified that the Fund may hold cash and Cash Equivalents (as defined below); (5) clarified that the Fund's investments will not be used to enhance leverage, although certain derivatives and other investments may result in leverage; (6) added representations regarding the Fund's risk disclosure in its offering documents, including leveraging risk; (7) clarified the types of instruments in which the Fund may invest up to 20% of its net assets; (8) added a representation that all of the Fund's holdings in equities, ETFs, futures, and options will be listed on members of the Intermarket Surveillance Group or on markets with which the Exchange has in place a comprehensive surveillance sharing agreement; (9) added a representation that the Fund's use of derivatives instruments will be collateralized; and (10) made technical and conforming changes. Amendment No. 2 to the proposed rule change is available at: *https://www.sec.gov/comments/sr-cboebzx-2019-001/srcboebzx2019001-5321696-183907.pdf.*

[7] The Commission approved BZX Rule 14.11(c) in Securities Exchange Act Release No. 65225 (August 30, 2011), 76 FR 55148 (September 6, 2011) (SR–BATS–2011–018).

[8] Rule 14.11(c)(1)(D) provides that the term ''U.S. Component Stock'' shall mean an equity security that is registered under Sections 12(b) or 12(g) of the Act.

[9] *See* Securities Exchange Act Release No. 68708 (January 23, 2013), 78 FR 6161 (January 29, 2013) (SR–NYSEArca–2012–131) (order granting approval of proposed rule change relating to listing and trading of shares of the Horizons S&P 500 Covered Call ETF).

[10] The Trust is registered under the Investment Company Act of 1940 (15 U.S.C. 80a–1) (''1940 Act''). On December 20, 2018, the Trust filed with the Commission an amendment to its Form N–1A under the Securities Act of 1933 (15 U.S.C. 77a), and under the 1940 Act relating to the Funds (File Nos. 333–151713 and 811–22209) (''Registration Statement''). The description of the operation of the Trust and the Fund herein is based, in part, on the Registration Statement. In addition, the Commission has issued an order granting certain exemptive relief to the Trust under the 1940 Act. *See* Investment Company Act Release No. 29852 (October 28, 2011) (File No. 812–13830).

[11] The Adviser is not registered as a broker-dealer, but is affiliated with broker-dealers and has implemented and will maintain a fire wall with respect to its broker-dealer affiliates regarding access to information concerning the portfolio holdings of the Fund. In the event (a) the Adviser becomes newly affiliated with a broker-dealer, or (b) any new adviser or sub-adviser becomes affiliated with a broker-dealer, it will implement and maintain a fire wall with respect to such broker-dealer regarding access to information concerning the portfolio holdings of the Fund, and will be subject to procedures designed to prevent the use and dissemination of material non-public information regarding said portfolio.

[12] The Underlying Index is provided by the Index Provider, which is unaffiliated with the Fund or the Adviser. The Index Provider maintains, calculates and publishes information regarding the Underlying Index. The Index Provider is not a broker-dealer and has implemented and will maintain procedures designed to prevent the use and dissemination of material, non-public information regarding the Underlying Index.

[13] The Exchange notes that the Russell 2000 Index has been previously approved by the Commission

Continued

Index''), and ''writes'' (or sells) a succession of one-month at-the-money covered call options on the Reference Index. The written covered call options on the Reference Index are held until expiration. The Reference Index is an equity benchmark which measures the performance of the small-capitalization sector of the U.S. equity market, as defined by FTSE Russell.[14]

The Exchange is submitting this proposed rule change because the Underlying Index for the Fund does not meet all of the ''generic'' listing requirements of Rule 14.11(c)(3)(A)(i) applicable to the listing of Index Fund Shares based upon an index of U.S. Component Stocks. Specifically, Rule 14.11(c)(3)(A)(i) sets forth the requirements to be met by components of an index or portfolio of U.S. Component Stocks. As further described below, the Underlying Index consists of the constituent securities of the Russell 2000 Index and options on the Russell 2000 Index. The Underlying Index meets all the requirements of Rule 14.11(c)(3)(A)(i) except that the Underlying Index includes call options, which are not NMS Stocks as defined in Rule 600 of Regulation NMS. As described below, the Underlying Index is comprised solely of Russell 2000 companies and includes an exposure to call options on the Reference Index. All securities in the Reference Index are listed and traded on a U.S. national securities exchange. The options on the Reference Index are traded on Cboe Exchange, Inc. (''Cboe Options''). Notwithstanding that the Underlying Index does not meet all of the generic listing requirements of Rule 14.11(c)(3)(A)(i), the Exchange believes that the Underlying Index is sufficiently broad-based enough to deter potential manipulation in that the Reference Index stocks are among the most actively traded, highly capitalized stocks traded in the U.S.

The Underlying Index

According to the Registration Statement, the Global X Russell 2000 Covered Call ETF will seek investment results that, before fees and expenses, generally correspond to the performance of the Fund's Underlying Index, which is the Cboe Russell 2000 BuyWrite Index. The Underlying Index measures the performance of a theoretical portfolio that holds a portfolio of the stocks included in the Reference Index, and ''writes'' (or sells) a succession of one-month at-the-money covered call options on the Reference Index. The written covered call options on the Reference Index are held until the applicable expiration date. The Reference Index is an equity benchmark which measures the performance of the small-capitalization sector of the U.S. equity market, as defined by FTSE Russell. The Underlying Index is comprised of all the equity securities in the Reference Index and a succession of short (written) one-month at-the-money covered call options on the Reference Index. The written covered call options on the Reference Index are held until the expiration date.

The Fund

According to the Registration Statement, the Fund will invest at least 80% of its total assets in securities that comprise its Underlying Index or in investments that have economic characteristics that are substantially identical to the economic characteristics of such component securities, either individually or in the aggregate (the ''80% Instruments'').[15] The Fund may also hold cash and Cash Equivalents.[16] In seeking to track the Underlying Index, the Fund follows a ''buy-write'' (also called a covered call) investment strategy on the Reference Index in which the Fund purchases the component securities of the Reference Index or purchases other investments (including other ETFs)[17] that have economic characteristics that are substantially identical to the economic characteristics of such component securities, and also writes (or sells) call options that correspond to the Reference Index.

According to the Registration Statement, the Fund will be an index fund that employs a ''passive management'' investment strategy in seeking to achieve its objective. According to the Registration Statement, the Adviser's strategy will consist of holding a portfolio indexed to the Reference Index and writing (selling) covered call options on the Reference Index.[18] The Underlying Index provides a benchmark measure of the total return of this hypothetical portfolio.

According to the Registration Statement, the Fund will generally use a representative sampling methodology, meaning it will invest in a representative sample of securities that collectively has an investment profile similar to the Underlying Index in terms of key risk factors, performance attributes and other characteristics.

The Fund's investments, including derivatives, will be consistent with the 1940 Act and the Fund's investment objective and policies and will not be

under Section 19(b)(2) of the Act in connection with the listing and trading of FLEX Options and Quarterly Index Options, as well as other securities. *See, e.g.,* Securities Exchange Act Release Nos. 32694 (July 29, 1993), 58 FR 41814 (July 5, 1993) (approving the listing and trading of FLEX Options based on the Russell 2000 Index); 32693 (July 29, 1993), 58 FR 41817 (August 5, 1993) (approving the listing and trading of Quarterly Index Option based on the Russell 2000 Index).

[14] The Underlying Index methodology is available at *http://www.cboe.com/products/strategy-benchmark-indexes/buywrite-indexes/cboe-russell-2000-buywrite-index-bxr.* The Index Provider may amend the methodology from time to time. In such case, the methodology would be updated accordingly on the website.

[15] The term 80% Instruments includes only the following: Equity components of the Reference Index, U.S. exchange-listed ETFs designed to track the Reference Index, U.S. listed options on equities that are components of the Reference Index, U.S. listed options on ETFs designed to track the Reference Index, as well as certain instruments that are either included in the Underlying Index or have economic characteristics that are substantially identical to the economic characteristics of such component securities, either individually or in the aggregate, including only the following: U.S. listed equity index futures, U.S. listed equity index options, U.S. listed equity index futures [sic], U.S. listed equity index options [sic], and U.S. listed options on U.S. listed equity index futures.

[16] As defined in Exchange Rule 14.11(i)(4)(C)(iii)(b), Cash Equivalents are short-term instruments with maturities of less than three months, which includes only the following: (i) U.S. Government securities, including bills, notes, and bonds differing as to maturity and rates of interest, which are either issued or guaranteed by the U.S. Treasury or by U.S. Government agencies or instrumentalities; (ii) certificates of deposit issued against funds deposited in a bank or savings and loan association; (iii) bankers acceptances, which are short-term credit instruments used to finance commercial transactions; (iv) repurchase agreements and reverse repurchase agreements; (v) bank time deposits, which are monies kept on deposit with banks or savings and loan associations for a stated period of time at a fixed rate of interest; (vi) commercial paper, which are short-term unsecured promissory notes; and (vii) money market funds.

[17] For purposes of this filing, ETFs include index fund shares (as described in BZX Rule 14.11(c)); Portfolio Depositary Receipts (as described in BZX Rule 14.11(b)); and Managed Fund Shares (as described in BZX Rule 14.11(i)). The ETFs all will be listed and traded in the U.S. on registered exchanges. The Fund may invest in the securities of ETFs registered under the 1940 Act consistent with the requirements of Section 12(d)(1) of the 1940 Act, or any rule, regulation or order of the Commission or interpretation thereof. While the Fund may invest in inverse ETFs, the Fund will not invest in leveraged (*e.g.,* 2X, −2X, 3X or −3X) ETFs.

[18] A covered call strategy is generally considered to be an investment strategy in which an investor buys a security, and sells a call option that corresponds to the security. In return for a premium, the Fund will give the purchaser of the option written by the Fund either the right to buy the security from the Fund at an exercise price or the right to receive a cash payment equal to the difference between the value of the security and the exercise (or ''strike'') price, if the value is above the exercise price on or before the expiration date of the option. In addition, the covered call options hedge against a decline in the price of the securities on which they are written to the extent of the premium the Fund receives. A covered call strategy is generally used in a neutral-to-bullish market environment, where a slow and steady rise in market prices is anticipated.

used to enhance leverage (although certain derivatives and other investments may result in leverage).[19] That is, while the Fund will be permitted to borrow as permitted under the 1940 Act, the Fund's investments will not be used to seek performance that is the multiple or inverse multiple *(i.e.,* 2Xs and 3Xs) of the Fund's primary broad-based securities benchmark index (as defined in Form N–1A). The Fund will only use those derivatives described above. The Fund's use of derivative instruments will be collateralized.

According to the Registration Statement, the Fund will concentrate its investments (*i.e.,* hold 25% or more of its total assets) in a particular industry or group of industries to approximately the same extent that the Underlying Index is so concentrated. The Fund will be diversified under the 1940 Act.

Investment Guidelines

According to the Registration Statement, the Fund will write (sell) call options on the Reference Index to the same extent as such short call options are included in its Underlying Index.

The Trust, on behalf of the Fund, has filed a notice of eligibility for exclusion from the definition of the term ''commodity pool operator'' in accordance with Rule 4.5 so that the Fund is not subject to registration or regulation as a commodity pool operator under the Commodity Exchange Act (''CEA'').

Other Investments

The Fund may also hold up to 20% of its net assets in shares of non-exchange traded registered open-end investment companies, subject to applicable limitations under Section 12(d)(1) of the 1940 Act (''Mutual Funds''),[20] U.S. listed options on equities that are not components of the Reference Index, U.S. listed options on ETFs that are not designed to track the Reference Index, and U.S. exchange-listed listed equities that are not components of the Reference Index, including ETFs that are not designed to track the Reference Index, which the Adviser believes will help the Fund track the Underlying Index, as well as in certain instruments that would be included in the definition of the 80% Instruments except that such instruments are not included in the Underlying Index or do not have economic characteristics that are substantially identical to the economic characteristics of such component securities, either individually or in the aggregate, including only the following: U.S. listed equity index futures, U.S. listed equity index options, and U.S. listed options on U.S. listed equity index futures.

The Fund may hold up to an aggregate amount of 15% of its net assets in illiquid securities (calculated at the time of investment).[21] The Fund will monitor its portfolio liquidity on an ongoing basis to determine whether, in the light of current circumstances, an adequate level of liquidity is being maintained, and will consider taking appropriate steps in order to maintain adequate liquidity if, through a change in values, net assets, or other circumstances, more than 15% of the Fund's net assets are held in illiquid securities and other illiquid assets.

The Fund will seek to qualify for treatment as a regulated investment company (''RIC'') under the Code.[22]

Availability of Information

The Fund's website, which will be publicly available prior to the public offering of Shares, will include a form of the prospectus for the Fund that may be downloaded. The website will include additional quantitative information updated on a daily basis, including, for the Fund: (1) The prior business day's reported NAV and a calculation of the premium and discount of the Bid/Ask Price against the NAV; and (2) data in chart format displaying the frequency distribution of discounts and premiums of the daily Bid/Ask Price against the NAV, within appropriate ranges, for each of the four previous calendar quarters. Daily trading volume information for the Shares will also be available in the financial section of newspapers, through subscription services such as Bloomberg, Thomson Reuters, and International Data Corporation, which can be accessed by authorized participants and other investors, as well as through other electronic services, including major public websites. On each business day, the Fund will disclose on its website the identities and quantities of the portfolio of securities and other assets in the daily disclosed portfolio held by the Fund that formed the basis for the Fund's calculation of NAV at the end of the previous business day. The daily disclosed portfolio will include, as applicable: The ticker symbol; CUSIP number or other identifier, if any; a description of the holding (including the type of holding); the identity of the security, index or other asset or instrument underlying the holding, if any; for options, the option strike price; quantity held (as measured by, for example, par value, notional value or number of shares, contracts, or units); maturity date, if any; coupon rate, if any; effective date, if any; market value of the holding; and the percentage weighting of the holding in the Fund's portfolio. The website and information will be publicly available at no charge. The value, components, and percentage weightings of the Underlying Index will be calculated and disseminated at least once daily and will be available from major market data vendors. Rules governing the Underlying Index are available on the Exchange's website and in the Fund's prospectus.

In addition, an estimated value, defined in BZX Rule 14.11(c)(6)(A) as the ''Intraday Indicative Value,'' (the ''IIV'') that reflects an estimated intraday value of the Fund's portfolio, will be disseminated. Moreover, the IIV will be based upon the current value for the components of the daily disclosed portfolio and will be updated and widely disseminated by one or more major market data vendors at least every

[19] The Fund will include appropriate risk disclosure in its offering documents, including leveraging risk. Leveraging risk is the risk that certain transactions of a fund, including a fund's use of derivatives, may give rise to leverage, causing a fund to be more volatile than if it had not been leveraged. To mitigate leveraging risk, the Fund will segregate or earmark liquid assets determined to be liquid by the Adviser in accordance with procedures established by the Trust's Board and in accordance with the 1940 Act (or, as permitted by applicable regulations, enter into certain offsetting positions) to cover its obligations under derivative instruments. These procedures have been adopted consistent with Section 18 of the 1940 Act and related Commission guidance. *See* 15 U.S.C. 80a-18; Investment Company Act Release No. 10666 (April 18, 1979), 44 FR 25128 (April 27, 1979); Dreyfus Strategic Investing, Commission No-Action Letter (June 22, 1987); Merrill Lynch Asset Management, L.P., Commission No-Action Letter (July 2, 1996).

[20] The Fund will not invest in leveraged (*e.g.,* 2x, −2x, 3x, or −3x) Mutual Funds.

[21] The Commission has stated that long-standing Commission guidelines have required open-end funds to hold no more than 15% of their net assets in illiquid securities and other illiquid assets. *See* Investment Company Act Release No. 8901 (March 11, 2008), 73 FR 14618 (March 18, 2008), footnote 34. *See* also, Investment Company Act Release No. 5847 (October 21, 1969), 35 FR 19989 (December 31, 1970) (Statement Regarding ''Restricted Securities''); Investment Company Act Release No. 18612 (March 12, 1992), 57 FR 9828 (March 20, 1992) (Revisions of Guidelines to Form N–1A). A fund's portfolio security is illiquid if it cannot be disposed of in the ordinary course of business within seven days at approximately the value ascribed to it by the exchange traded fund (''ETF''). *See* Investment Company Act Release No. 14983 (March 12, 1986), 51 FR 9773 (March 21, 1986) (adopting amendments to Rule 2a–7 under the 1940 Act); Investment Company Act Release No. 17452 (April 23, 1990), 55 FR 17933 (April 30, 1990) (adopting Rule 144A under the Securities Act of 1933).

[22] 26 U.S.C. 851.

15 seconds during the Exchange's Regular Trading Hours.[23]

The dissemination of the IIV, together with the daily disclosed portfolio, will allow investors to determine the value of the underlying portfolio of the Fund on a daily basis and provide a close estimate of that value throughout the trading day.

Quotation and last sale information for the Shares will be available via the CTA high speed line and, for the securities held by the Fund, will be available from the exchange on which they are listed. Quotation and last sale information for options contracts held by the Fund will be available via the Options Price Reporting Authority. The intra-day, closing, and settlement prices of the portfolio instruments, including equities, ETFs, futures, and options, will also be readily available from the exchanges trading such instruments, automated quotation systems, published or other public sources, or online information services such as Bloomberg or Reuters. Price information for Cash Equivalents will be available from major market data vendors. Mutual Funds are typically priced once each business day and their prices will be available through the applicable fund's website or from major market data vendors.

Trading Halts

With respect to trading halts, the Exchange may consider all relevant factors in exercising its discretion to halt or suspend trading in the Shares. Trading also may be halted because of market conditions or for reasons that, in the view of the Exchange, make trading in the shares the Fund inadvisable. If the IIV and index value are not being disseminated for the Fund as required, the Exchange may halt trading during the day in which the interruption to the dissemination of the IIV or index value occurs. If the interruption to the dissemination of an IIV or index value persists past the trading day in which it occurred, the Exchange will halt trading. The Exchange may consider all relevant factors in exercising its discretion to halt or suspend trading in the Shares. The Exchange will halt trading in the Shares under the conditions specified in BZX Rule 11.18. Trading may be halted because of market conditions or for reasons that, in the view of the Exchange, make trading in the Shares inadvisable. These may include: (1) The extent to which trading is not occurring in the securities and/or the financial instruments composing the daily disclosed portfolio of the Fund; or (2) whether other unusual conditions or circumstances detrimental to the maintenance of a fair and orderly market are present. Trading in the Shares also will be subject to Rule 14.11(c)(1)(B)(iv), which sets forth circumstances under which Shares of a Fund may be halted.

Trading Rules

The Exchange deems the Shares to be equity securities, thus rendering trading in the Shares subject to the Exchange's existing rules governing the trading of equity securities. The Exchange will allow trading in the Shares from 8:00 a.m. until 8:00 p.m. Eastern Time and has the appropriate rules to facilitate transactions in the Shares during all trading sessions. As provided in Rule 11.11(a), the minimum price variation for quoting and entry of orders in securities traded on the Exchange is $0.01, with the exception of securities that are priced less than $1.00, for which the minimum price variation for order entry is $0.0001.

Surveillance

The Exchange believes that its surveillance procedures are adequate to properly monitor the trading of the Shares on the Exchange during all trading sessions and to deter and detect violations of Exchange rules and the applicable federal securities laws. Trading of the Shares through the Exchange will be subject to the Exchange's surveillance procedures for derivative products, including Index Fund Shares. The issuer has represented to the Exchange that it will advise the Exchange of any failure by the Fund to comply with the continued listing requirements, and, pursuant to its obligations under Section 19(g)(1) of the Exchange Act, the Exchange will surveil for compliance with the continued listing requirements. FINRA conducts certain cross-market surveillances on behalf of the Exchange pursuant to a regulatory services agreement. The Exchange is responsible for FINRA's performance under this regulatory services agreement. If the Fund is not in compliance with the applicable listing requirements, the Exchange will commence delisting procedures under Exchange Rule 14.12.

The Exchange or FINRA, on behalf of the Exchange, will communicate as needed regarding trading in the Shares, underlying equities (including ETFs), futures, and options contracts with other markets and other entities that are members of the Intermarket Surveillance Group (''ISG'')[24] and may obtain trading information regarding trading in the Shares, underlying equities (including ETFs), futures, and options contracts from such markets and other entities. In addition, the Exchange may obtain information regarding trading in the Shares, underlying equities (including ETFs), futures, and the options contracts from markets and other entities that are members of ISG or with which the Exchange has in place a comprehensive surveillance sharing agreement. In addition, the Exchange is able to access, as needed, trade information for certain fixed income securities held by the Fund reported to FINRA's Trade Reporting and Compliance Engine (''TRACE'').

In addition, the Exchange also has a general policy prohibiting the distribution of material, non-public information by its employees.

The Exchange represents that, for initial and/or continued listing, the Fund will be in compliance with Rule 10A–3[25] under the Exchange Act, as provided by generic listing standards under Rule 14.11(c)(4) and the continued listing standards under Rule 14.11(c). A minimum of 100,000 Shares for the Fund will be outstanding at the commencement of trading on the Exchange. The Exchange represents that, except for the exceptions to BZX Rule 14.11(c) described above, the Fund and Shares will satisfy all applicable requirements for Index Fund Shares under Rule 14.11(c), including the requirements related to the net asset value (''NAV'') per Share being calculated daily and made available to all market participants at the same time, intraday indicative value, suspension of trading or removal, trading halts, disclosure, and firewalls.

Information Circular

Prior to the commencement of trading, the Exchange will inform its members in an Information Circular of the special characteristics and risks associated with trading the Shares. Specifically, the Information Circular will discuss the following: (1) The procedures for purchases and redemptions of Shares in Creation Units (and that Shares are not individually redeemable); (2) BZX Rule 3.7, which imposes suitability obligations on Exchange members with respect to recommending transactions in the

[23] Currently, it is the Exchange's understanding that several major market data vendors display and/or make widely available IIVs published via the Consolidated Tape Association (''CTA'') or other data feeds.

[24] For a list of the current members of ISG, *see www.isgportal.org.* The Exchange notes that not all of the components of the portfolio for the Fund may trade on exchanges that are members of the ISG or with which the Exchange has in place a comprehensive surveillance sharing agreement.

[25] 17 CFR 240.10A–3.

Shares to customers; (3) how information regarding the Intraday Indicative Value and the portfolio holdings is disseminated; (4) the risks involved in trading the Shares during the Pre-Opening [26] and After Hours Trading Sessions [27] when an updated Intraday Indicative Value will not be calculated or publicly disseminated; (5) the requirement that members deliver a prospectus to investors purchasing newly issued Shares prior to or concurrently with the confirmation of a transaction; and (6) trading information.

In addition, the Information Circular will advise members, prior to the commencement of trading, of the prospectus delivery requirements applicable to the Fund. Members purchasing Shares from the Fund for resale to investors will deliver a prospectus to such investors. The Information Circular will also discuss any exemptive, no-action and interpretive relief granted by the Commission from any rules under the Act.

In addition, the Information Circular will reference that the Fund is subject to various fees and expenses described in the Registration Statement. The Information Circular will also disclose the trading hours of the Shares of the Fund and the applicable NAV calculation time for the Shares. The Information Circular will disclose that information about the Shares of the Fund will be publicly available on the Fund's website.

2. Statutory Basis

The Exchange believes that the proposal is consistent with Section 6(b) of the Act [28] in general and Section 6(b)(5) of the Act [29] in particular in that it is designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in facilitating transactions in securities, to remove impediments to and perfect the mechanism of a free and open market and a national market system and, in general, to protect investors and the public interest.

The Exchange believes that the proposed rule change is designed to prevent fraudulent and manipulative acts and practices in that the Shares will be listed and traded on the Exchange pursuant to the initial and continued listing criteria for Index Fund Shares based on an index composed of U.S. Component Stocks in Rule 14.11(c)(3). The Exchange represents that trading in the Shares will be subject to the existing trading surveillances administered by the Exchange as well as cross-market surveillances administered by FINRA on behalf of the Exchange, which are designed to detect violations of Exchange rules and federal securities laws applicable to trading on the Exchange. The Exchange represents that these procedures are adequate to properly monitor Exchange trading of the Shares in all trading sessions and to deter and detect violations of Exchange rules and federal securities laws applicable to trading on the Exchange. The Exchange or FINRA, on behalf of the Exchange, will communicate as needed regarding trading in the Shares, underlying equities (including ETFs), futures, and options contracts with other markets and other entities that are members of the ISG and may obtain trading information regarding trading in the Shares, underlying equities (including ETFs), futures, and options contracts from such markets and other entities.[30] In addition, the Exchange may obtain information regarding trading in the Shares, underlying equities (including ETFs), futures, and the options contracts from markets and other entities that are members of ISG or with which the Exchange has in place a comprehensive surveillance sharing agreement. All securities in the Reference Index are listed and traded on a U.S. national securities exchange. The options on the Reference Index are traded on Cboe Options, a U.S. national options exchange and member of ISG. In addition, FINRA, on behalf of the Exchange, is able to access, as needed, trade information for certain fixed income securities held by the Fund reported to TRACE.

The Fund's investments, including derivatives, will be consistent with the 1940 Act and the Fund's investment objective and policies and will not be used to enhance leverage (although certain derivatives and other investments may result in leverage). That is, while the Fund will be permitted to borrow as permitted under the 1940 Act, the Fund's investments will not be used to seek performance that is the multiple or inverse multiple (*i.e.,* 2Xs and 3Xs) of the Fund's primary broad-based securities benchmark index (as defined in Form N–1A). The Fund will only use those derivatives described above. The Fund's use of derivative instruments will be collateralized.

The Adviser is affiliated with broker-dealers and has implemented and will maintain a fire wall with respect to its broker-dealer affiliates regarding access to information concerning the portfolio holdings of the Fund. In the event (a) the Adviser becomes newly affiliated with a broker-dealer, or (b) any new adviser or sub-adviser becomes affiliated with a broker-dealer, it will implement and maintain a fire wall with respect to such broker-dealer regarding access to information concerning the portfolio holdings of the Fund, and will be subject to procedures designed to prevent the use and dissemination of material non-public information regarding such portfolios. The Index Provider is not a broker-dealer and has implemented and will maintain procedures designed to prevent the use and dissemination of material, non-public information regarding the Underlying Index.

The proposed rule change is designed to promote just and equitable principles of trade and to protect investors and the public interest in that the Exchange will obtain a representation from the issuer of the Shares that the NAV per Share will be calculated daily and that the NAV will be made available to all market participants at the same time. In addition, a large amount of information is publicly available regarding the Fund and the Shares, thereby promoting market transparency. Moreover, the IIV and the Underlying Index value will be widely disseminated by one or more major market data vendors at least every 15 seconds during Regular Trading Hours. If the IIV or the Underlying Index value of a Fund is not being disseminated as required, the Exchange may halt trading during the day in which the interruption to the dissemination of the applicable IIV or Underlying Index value occurs. If the interruption to the dissemination of the applicable IIV or Underlying Index value persists past the trading day in which it occurred, the Exchange will halt trading. In addition, if the Exchange becomes aware that the NAV of a Fund is not being disseminated to all market participants at the same time, it will halt trading in the relevant Shares on the Exchange until such time as the NAV is available to all market participants. On each business day, before commencement of trading in Shares during Regular Trading Hours on the Exchange, the Fund will disclose on its website the securities and other financial instruments in the Fund's

[26] The Pre-Opening Session is from 8:00 a.m. to 9:30 a.m. Eastern Time.

[27] The After Hours Trading Session is from 4:00 p.m. to 5:00 p.m. Eastern Time.

[28] 15 U.S.C. 78f.

[29] 15 U.S.C. 78f(b)(5).

[30] The Exchange notes that all of the Funds [sic] holdings in equities, ETFs, futures, and options will be listed on members of ISG or on markets with which the Exchange has in place a comprehensive surveillance sharing agreement.

portfolio that will form the basis for the Fund's calculation of NAV at the end of the business day. Information regarding market price and trading volume of the Shares will be continually available on a real-time basis throughout the day on brokers' computer screens and other electronic services, and quotation and last sale information will be available via the CTA high-speed line. The website for the Fund will include a form of the prospectus for the Fund and additional data relating to NAV and other applicable quantitative information. Moreover, prior to the commencement of trading, the Exchange will inform its Members in an Information Circular of the special characteristics and risks associated with trading the Shares. The Exchange will halt trading in the Shares under the conditions specified in Rule 11.18. Trading may be halted because of market conditions or for reasons that, in the view of the Exchange, make trading in the Shares inadvisable. These may include: (1) The extent to which trading is not occurring in the securities and/or the financial instruments composing the daily disclosed portfolio of the Fund; or (2) whether other unusual conditions or circumstances detrimental to the maintenance of a fair and orderly market are present. In addition, the equity securities (including ETFs), futures, and options in which the Fund will invest will trade in markets that are ISG members. Additional information regarding the Underlying and Reference Indices' components and their percentage weights will be available from the Index Provider and major market data vendors. In addition, quotation and last sale information for the components of the Underlying and Reference Indices will be available from the exchanges on which they trade. The intra-day, closing and settlement prices of the portfolio instruments will also be readily available from the exchanges trading such instruments, automated quotation systems, published or other public sources, or on-line information services such as Bloomberg or Reuters. In addition, as noted above, investors will have ready access to information regarding the Fund's holdings, the IIV, the Underlying Index's value, and quotation and last sale information for the Shares.

The proposed rule change is designed to perfect the mechanism of a free and open market and, in general, to protect investors and the public interest in that it will facilitate the listing and trading of additional types of Index Fund Shares that will enhance competition among market participants, to the benefit of investors and the marketplace. As noted above, the Exchange has in place surveillance procedures relating to trading in the Shares, the underlying equities (including ETFs), futures, and options contracts and may obtain information via ISG from other exchanges that are members of ISG or with which the Exchange has entered into a comprehensive surveillance sharing agreement. In addition, as noted above, investors will have ready access to information regarding the Fund's holdings, the IIV, relevant Underlying Index value, and quotation and last sale information for the Shares.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition that is not necessary or appropriate in furtherance of the purpose of the Act. The Exchange notes that the proposed rule change will facilitate the listing and trading of an additional series of Index Fund Shares on the Exchange that will enhance competition among market participants, to the benefit of investors and the marketplace.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants or Others

The Exchange has neither solicited nor received written comments on the proposed rule change.

III. Discussion and Commission Findings

After careful review, the Commission finds that the proposed rule change, as modified by Amendment 2, is consistent with the Act and the rules and regulations thereunder applicable to a national securities exchange.[31] In particular, the Commission finds that the proposed rule change, as modified by Amendment No. 2, is consistent with Section 6(b)(5) of the Act,[32] which requires, among other things, that the Exchange's rules be designed to promote just and equitable principles of trade, to remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general, to protect investors and the public interest. The Commission also finds that the proposal to list and trade the Shares on the Exchange is consistent with Section 11A(a)(1)(C)(iii) of the Act,[33] which sets forth Congress' finding that it is in the public interest and appropriate for the protection of investors and the maintenance of fair and orderly markets to assure the availability to brokers, dealers and investors of information with respect to quotations for and transactions in securities.

Quotation and last-sale information for the Shares will be available via the CTA high speed line and, for the securities held by the Fund, will be available from the exchange on which they are listed.[34] Quotation and last sale information for options contracts held by the Fund will be available via the Options Price Reporting Authority.[35] The intra-day, closing, and settlement prices of the portfolio instruments, including equities, ETFs, futures, and options, will also be readily available from the exchanges trading such instruments, automated quotation systems, published or other public sources, or online information services such as Bloomberg or Reuters.[36] Price information for Cash Equivalents will be available from major market data vendors.[37] Mutual Fund prices will be available through the applicable fund's website or from major market data vendors.[38]

On each business day, before commencement of trading in Shares during Regular Trading Hours on the Exchange, the Fund will disclose on its website the identities and quantities of the portfolio of securities and other assets in the daily disclosed portfolio held by the Fund that formed the basis for the Fund's calculation of NAV at the end of the previous business day.[39] The daily disclosed portfolio will include, as applicable: The ticker symbol; CUSIP number or other identifier, if any; a description of the holding (including the type of holding); the identity of the security, index or other asset or instrument underlying the holding, if any; for options, the option strike price; quantity held (as measured by, for example, par value, notional value or number of shares, contracts, or units); maturity date, if any; coupon rate, if any; effective date, if any; market value of the holding; and the percentage weighting of the holding in the Fund's portfolio.[40] The website and

[31] In approving this proposed rule change, the Commission has considered the proposed rule's impact on efficiency, competition, and capital formation. *See* 15 U.S.C. 78c(f).

[32] 15 U.S.C. 78f(b)(5).

[33] 15 U.S.C. 78k–1(a)(1)(C)(iii).

[34] *See* Amendment No. 2, *supra* note 6, at 14.

[35] *See id.*

[36] *See id.*

[37] *See id.* at 14–15.

[38] *See id.* at 15.

[39] *See id.* at 13.

[40] *See* Amendment No. 2, *supra* note 6, at 13.

information will be publicly available at no charge.[41]

Information regarding market price and trading volume of the Shares will be continually available on a real-time basis throughout the day on brokers' computer screens and other electronic services, and quotation and last sale information will be available via the CTA high-speed line.[42] Daily trading volume information for the Shares will also be available in the financial section of newspapers, through subscription services such as Bloomberg, Thomson Reuters, and International Data Corporation, which can be accessed by authorized participants and other investors, as well as through other electronic services, including major public websites.[43] The website for the Fund will include a form of the prospectus for the Fund and additional data relating to NAV and other applicable quantitative information.[44] The value, components, and percentage weightings of the Underlying Index will be calculated and disseminated at least once daily and will be available from major market data vendors.[45] Additional information regarding the Underlying and Reference Indices' components and their percentage weights will be available from the Index Provider and major market data vendors.[46] Moreover, the Underlying Index value and the IIV, as defined in BZX Rule 14.11(c)(6)(A), will be widely disseminated by one or more major market data vendors at least every 15 seconds during Regular Trading Hours.[47]

The Commission also believes that the proposal to list and trade the Shares is reasonably designed to promote fair disclosure of information that may be necessary to price the Shares appropriately and to prevent trading when a reasonable degree of transparency cannot be assured. The Exchange will obtain a representation from the issuer of the Shares that the NAV per Share will be calculated daily and that the NAV will be made available to all market participants at the same time.[48] Trading may be halted because of market conditions or for reasons that, in the view of the Exchange, make trading in the Shares inadvisable.[49] Trading in the Shares also will be subject to Rule 14.11(c)(1)(B)(iv), which sets forth circumstances under which Shares of a Fund may be halted.[50] The Exchange states that it has a general policy prohibiting the distribution of material, non-public information by its employees.[51] In addition, the Exchange states that the Index Provider is not a broker-dealer and has implemented and will maintain procedures designed to prevent the use and dissemination of material, non-public information regarding the Underlying Index.[52] The Exchange also represents that the Adviser is not registered as a broker-dealer, but is affiliated with broker-dealers, and has implemented and will maintain a fire wall with respect to its broker-dealer affiliates regarding access to information concerning the portfolio holdings of the Fund.[53]

The Exchange represents that trading in the Shares will be subject to the existing trading surveillances, which are designed to detect violations of Exchange rules and federal securities laws applicable to trading on the Exchange.[54] The Exchange further represents that these procedures are adequate to properly monitor Exchange trading of the Shares in all trading sessions and to deter and detect violations of Exchange rules and federal securities laws applicable to trading on the Exchange.[55] Moreover, prior to the commencement of trading, the Exchange will inform its Members in an Information Circular of the special characteristics and risks associated with trading the Shares.[56]

The Commission notes that the Fund and the Shares must comply with the initial and continued listing criteria in Rule 14.11(c) for the Shares to the listed and traded on the Exchange. Except for the Underlying Index's exposure to call options, the Fund and Shares will satisfy all applicable requirements for Index Fund Shares under Rule 14.11(c), including the requirements related to the NAV per Share being calculated daily and made available to all market participants at the same time, intraday indicative value, suspension of trading or removal, trading halts, disclosure, and firewalls.[57] Additionally, all of the Fund's holdings in equities, ETFs, futures and options will be listed on members of ISG or on markets with which the Exchange has in place a comprehensive surveillance sharing agreement.[58]

The Exchange represents that it deems the Shares to be equity securities, thus rendering trading in the Shares subject to the Exchange's existing rules governing the trading of equity securities.[59] In support of this proposal, the Exchange has also made the following representations:

(1) The Fund and the Shares will satisfy all of the generic listing standards under BZX Rule 14.11(c) except BZX Rule 14.11(c)(3)(A)(i)(e).[60]

(2) The Exchange has the appropriate rules to facilitate transactions in the Shares during all trading sessions.[61]

(3) The Exchange or FINRA, on behalf of the Exchange, will communicate as needed regarding trading in the Shares, underlying equities, futures, and options contracts with other markets and other entities that are members of the ISG and may obtain trading information regarding trading in the Shares, underlying equities (including ETFs), futures, and options contracts from such markets and other entities. In addition, the Exchange may obtain information regarding trading in the Shares, underlying equities (including ETFs), futures, and the options contracts from markets and other entities that are members of ISG or with which the Exchange has in place a comprehensive surveillance sharing agreement. The Exchange is also able to access, as needed, trade information for certain fixed income securities held by the Fund reported to FINRA's TRACE.[62]

(4) Prior to the commencement of trading, the Exchange will inform its members in an Information Circular of the special characteristics and risks associated with trading the Shares. Specifically, the Information Circular will discuss the following: (a) The procedures for purchases and redemptions of Shares in Creation Units (and that Shares are not individually redeemable); (b) BZX Rule 3.7, which imposes suitability obligations on Exchange members with respect to recommending transactions in the Shares to customers; (c) how information regarding the Intraday Indicative Value and the portfolio holdings is disseminated; (d) the risks involved in trading the Shares during

[41] *See id.*

[42] *See id.* at 22.

[43] *See id.* at 13.

[44] *See id.* at 22.

[45] *See id.* at 13–14.

[46] *See* Amendment No. 2, *supra* note 6, at 23.

[47] *See id.* at 22.

[48] *See id.* at 21.

[49] *See id.* at 23. These may include: (1) The extent to which trading is not occurring in the securities and/or the financial instruments composing the daily disclosed portfolio of the Fund; or (2) whether other unusual conditions or circumstances detrimental to the maintenance of a fair and orderly market are present.

[50] *See id.* at 15.

[51] *See id.* at 17.

[52] *See* Amendment No. 2, *supra* note 6, at 6, n.8.

[53] *See id.* at 4, n.7.

[54] *See id.* at 19–20.

[55] *See id.* at 20.

[56] *See id.* at 18.

[57] *See id.* at 17–18.

[58] *See* Amendment No. 2, *supra* note 6, at 20, n.26.

[59] *See id.* at 16.

[60] *See id.* at 5, 18.

[61] *See id.* at 16.

[62] *See id.* at 17.

the Pre-Opening and After Hours Trading Sessions when an updated Intraday Indicative Value will not be calculated or publicly disseminated; (e) the requirement that members deliver a prospectus to investors purchasing newly issued Shares prior to or concurrently with the confirmation of a transaction; and (f) trading information.[63]

(5) For initial and continued listing, the Fund will be in compliance with Rule 10A–3 under the Act.[64]

(6) A minimum of 100,000 Shares will be outstanding at the commencement of trading on the Exchange.[65]

(7) All of the Fund's holdings in equities, ETFs, futures, and options will be listed on members of ISG or on markets with which the Exchange has in place a comprehensive surveillance sharing agreement.[66]

(8) The Fund may hold up to an aggregate amount of 15% of its net assets in illiquid securities (calculated at the time of investment).[67]

(9) The Fund's investments, including derivatives, will be consistent with the 1940 Act and the Fund's investment objective and policies and will not be used to enhance leverage (although certain derivatives and other investments may result in leverage). The Fund's investments will not be used to seek performance that is the multiple or inverse multiple (*i.e.,* 2Xs and 3Xs) of the Fund's primary broad-based securities benchmark index (as defined in Form N–1A).[68]

(10) All securities in the Reference Index are listed and traded on a U.S. national securities exchange. The options on the Reference Index are traded on Cboe Options.[69]

(11) The Fund's use of derivative instruments will be collateralized.[70]

(12) The Fund will not invest in leveraged (*e.g.,* 2x, −2x, 3x, or −3x) Mutual Funds.[71]

(13) Trading of the Shares through the Exchange will be subject to the Exchange's surveillance procedures for derivative products, including Index Fund Shares,[72] as well as cross-market surveillances administered by FINRA on behalf of the Exchange, which are designed to detect violations of Exchange rules and federal securities laws applicable to trading on the Exchange.[73]

(14) The issuer will advise the Exchange of any failure by the Fund to comply with the continued listing requirements, and, pursuant to its obligations under Section 19(g)(1) of the Exchange Act, the Exchange will surveil for compliance with the continued listing requirements.[74]

(15) If the Fund is not in compliance with the applicable listing requirements, the Exchange will commence delisting procedures under Exchange Rule 14.12.[75]

This approval order is based on all of the Exchange's statements and representations, including those set forth above and in Amendment No. 2.

For the foregoing reasons, the Commission finds that the proposed rule change, as modified by Amendment No. 2 thereto, is consistent with Section 6(b)(5) of the Act[76] and the rules and regulations thereunder applicable to a national securities exchange.

IV. Solicitation of Comments on Amendment No. 2 to the Proposed Rule Change

Interested persons are invited to submit written views, data, and arguments concerning whether Amendment No. 2 is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov.* Please include File Number SR–CboeBZX–2019–001 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.

All submissions should refer to File Number SR–CboeBZX–2019–001. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549 on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–CboeBZX–2019–001 and should be submitted on or before May 6, 2019.

V. Accelerated Approval of the Proposed Rule Change, as Modified by Amendment No. 2

The Commission finds good cause to approve the proposed rule change, as modified by Amendment No. 2, prior to the thirtieth day after the date of publication of notice of the filing of Amendment No. 2 in the **Federal Register**. Amendment No. 2 supplements the proposal by, among other things: (1) Providing additional information regarding the Fund's permissible holdings; and (2) making additional representations regarding the Fund's use of leveraging. The changes and additional information in Amendment No. 2 assists the Commission in evaluating the Exchange's proposal and in determining that the listing and trading of the Shares is consistent with the Act. Accordingly, the Commission finds good cause, pursuant to Section 19(b)(2) of the Act,[77] to approve the proposed rule change, as modified by Amendment No. 2, on an accelerated basis.

VI. Conclusion

It is therefore ordered, pursuant to Section 19(b)(2) of the Act,[78] that the proposed rule change (SR–CboeBZX–2019–001), as modified by Amendment No. 2 thereto, be, and it hereby is, approved on an accelerated basis.

[63] *See id.* at 18.

[64] 17 CFR 240.10A–3; *see* Amendment No. 2, *supra* note 6, at 17.

[65] *See id.* at 17.

[66] *See id.* at 20, n.26.

[67] *See id.* at 12.

[68] *See id.* at 10.

[69] *See id.* at 7.

[70] *See* Amendment No. 2, *supra* note 6, at 10.

[71] *See id.* at 11, n.16.

[72] *See id.* at 16.

[73] *See id.* at 20.

[74] *See id.* at 16.

[75] *See id.*

[76] 15 U.S.C. 78f(b)(5).

[77] 15 U.S.C. 78s(b)(2).

[78] *Id.*

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[79]

Jill M. Peterson,

Assistant Secretary.

[FR Doc. 2019–07377 Filed 4–12–19; 8:45 am]

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SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–85572; File No. SR–NYSENAT–2019–08]

Self-Regulatory Organizations; NYSE National, Inc.; Notice of Filing and Immediate Effectiveness of Proposed Rule Change To Extend the Pilot Related to Rule 7.12, Trading Halts Due to Extraordinary Market Volatility

April 9, 2019.

Pursuant to Section 19(b)(1)[1] of the Securities Exchange Act of 1934 (the ''Act'')[2] and Rule 19b–4 thereunder,[3] notice is hereby given that on April 5, 2019, NYSE National, Inc. (''NYSE National'' or the ''Exchange'') filed with the Securities and Exchange Commission (the ''Commission'') the proposed rule change as described in Items I and II below, which Items have been prepared by the self-regulatory organization. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to extend the pilot related to Rule 7.12, Trading Halts Due to Extraordinary Market Volatility, to the close of business on October 18, 2019. The proposed rule change is available on the Exchange's website at *www.nyse.com,* at the principal office of the Exchange, and at the Commission's Public Reference Room.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the self-regulatory organization included statements concerning the purpose of, and basis for, the proposed rule change and discussed any comments it received on the proposed rule change. The text of those statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant parts of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

Rule 7.12 provides a methodology for determining when to halt trading in all stocks due to extraordinary market volatility, *i.e.,* market-wide circuit breakers. The market-wide circuit breaker mechanism under Rule 7.12 was approved by the Commission to operate on a pilot basis, the term of which was to coincide with the pilot period for the Plan to Address Extraordinary Market Volatility Pursuant to Rule 608 of Regulation NMS (the ''LULD Plan''),[4] including any extensions to the pilot period for the LULD Plan.[5] The Commission published an amendment to the LULD Plan for it to operate on a permanent, rather than pilot, basis.[6]

The Exchange proposes to amend Rule 7.12 to untie the pilot's effectiveness from that of the LULD Plan and to extend the pilot's effectiveness to the close of business on October 18, 2019. The Exchange does not propose any additional changes to Rule 7.12.

Market-wide circuit breakers under Rule 7.12 provide an important, automatic mechanism that is invoked to promote stability and investor confidence during a period of significant stress when securities markets experience extreme broad-based declines. All U.S. equity exchanges have rules relating to market-wide circuit breakers, which are designed to slow the effects of extreme price movement through coordinated trading halts across securities markets when severe price declines reach levels that may exhaust market liquidity. Market-wide circuit breakers provide for trading halts in all equities and options markets during a severe market decline as measured by a single-day decline in the S&P 500 Index.

Pursuant to Rule 7.12, a market-wide trading halt will be triggered if the S&P 500 Index declines in price by specified percentages from the prior day's closing price of that index. Currently, the triggers are set at three circuit breaker thresholds: 7% (Level 1), 13% (Level 2) and 20% (Level 3). A market decline that triggers a Level 1 or Level 2 circuit breaker after 9:30 a.m. ET and before 3:25 p.m. ET would halt market-wide trading for 15 minutes, while a similar market decline at or after 3:25 p.m. ET would not halt market-wide trading. A market decline that triggers a Level 3 circuit breaker, at any time during the trading day, would halt market-wide trading for the remainder of the trading day.

The Exchange intends to file a separate proposed rule change with the Commission to operate Rule 7.12 on a permanent, rather than pilot, basis. Extending the effectiveness of Rule 7.12 to the close of business on October 18, 2019 should provide the Commission adequate time to consider whether to approve the Exchange's separate proposal to operate the market-wide circuit breaker mechanism under Rule 7.12 on a permanent basis.

2. Statutory Basis

The Exchange believes that its proposal is consistent with the requirements of Sections 6(b)[7] and 6(b)(5) of the Act,[8] in particular, because it would promote just and equitable principles of trade, remove impediments to, and perfect the mechanism of, a free and open market and a national market system. The Exchange also believes that the proposed rule change promotes just and equitable principles of trade in that it promotes transparency and uniformity across markets concerning when and how to halt trading in all stocks as a result of extraordinary market volatility. Extending the market-wide circuit breaker pilot under Rule 7.12 an additional six months would ensure the continued, uninterrupted operation of a consistent mechanism to halt trading across the U.S. markets while the Commission considers whether to approve the pilot on a permanent basis. The proposed rule change would thus promote fair and orderly markets and the protection of investors and the public interest. Based on the foregoing, the Exchange believes the benefits to market participants from the market-wide circuit breaker mechanism under Rule 7.12 should continue on a pilot basis while the Commission considers whether to permanently approve Rule 7.12.

[79] 17 CFR 200.30–3(a)(12).

[1] 15 U.S.C. 78s(b)(1).

[2] 15 U.S.C. 78a.

[3] 17 CFR 240.19b–4.

[4] *See* Securities Exchange Act Release No. 67091 (May 31, 2012), 77 FR 33498 (June 6, 2012) (the ''Limit Up-Limit Down Release'').

[5] *See* Securities Exchange Act Release Nos. 67090 (May 31, 2012), 77 FR 33531 (June 6, 2012) (SR–NSX–2011–11) (Approval Order); and 68779 (January 31, 2013), 78 FR 8638 (February 6, 2013) (SR–NSX–2013–04) (Notice of Filing and Immediate Effectiveness of Proposed Rule Change Delaying the Operative Date of Rule 7.12 to April 8, 2013).

[6] *See* Securities Exchange Act Release Nos. 84843 (December 18, 2018), 83 FR 66464 (December 26, 2018) (Amendment No. 18 Proposing Release).

[7] 15 U.S.C. 78f(b).

[8] 15 U.S.C. 78f(b)(5).

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change implicates any competitive issues because the proposal would ensure the continued, uninterrupted operation of a consistent mechanism to halt trading across the U.S. markets while the Commission considers whether to permanently approve the market-wide circuit breaker mechanism under Rule 7.12. Further, the Exchange understands that FINRA and other national securities exchanges will file proposals to extend their rules regarding the market-wide circuit breaker pilot so that the market-wide circuit breaker mechanism may continue uninterrupted while the Commission considers whether to approve its operation on a permanent basis.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

No written comments were solicited or received with respect to the proposed rule change.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Because the foregoing proposed rule change does not: (i) Significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative for 30 days from the date on which it was filed, or such shorter time as the Commission may designate, it has become effective pursuant to Section 19(b)(3)(A) of the Act [9] and Rule 19b–4(f)(6) thereunder.[10]

A proposed rule change filed under Rule 19b–4(f)(6) [11] normally does not become operative for 30 days after the date of filing. However, pursuant to Rule 19b–4(f)(6)(iii),[12] the Commission may designate a shorter time if such action is consistent with the protection of investors and the public interest. The Exchange has asked the Commission to waive the 30-day operative delay so that the proposal may become operative upon filing. Extending the pilot for an additional six months will allow the uninterrupted operation of the existing pilot to halt trading across the U.S. markets while the Commission considers whether to approve the pilot on a permanent basis. The extension simply maintains the status quo. Therefore, the Commission believes that waiving the 30-day operative delay is consistent with the protection of investors and the public interest. The Commission hereby designates the proposed rule change to be operative upon filing.[13]

At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov.* Please include File Number SR–NYSENAT–2019–08 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.

All submissions should refer to File Number SR–NYSENAT–2019–08. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549 on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–NYSENAT–2019–08, and should be submitted on or before May 6, 2019.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[14]

Jill M. Peterson,

Assistant Secretary.

[FR Doc. 2019–07366 Filed 4–12–19; 8:45 am]

BILLING CODE 8011–01–P

[9] 15 U.S.C. 78s(b)(3)(A).

[10] 17 CFR 240.19b–4(f)(6).

[11] *Id.*

[12] 17 CFR 240.19b–4(f)(g)(iii).

[13] For purposes only of waiving the 30-day operative delay, the Commission has also considered the proposed rule's impact on efficiency, competition, and capital formation. *See* 15 U.S.C. 78c(f).

[14] 17 CFR 200.30–3(a)(12).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–85579; File No. SR–Phlx–2019–12]

Self-Regulatory Organizations; Nasdaq PHLX LLC; Notice of Filing and Immediate Effectiveness of Proposed Rule Change To Extend the Pilot Related to Rule 133, Trading Halts Due to Extraordinary Market Volatility

April 9, 2019.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (''Act''),[1] and Rule 19b–4 thereunder,[2] notice is hereby given that on April 8, 2019, Nasdaq PHLX LLC (''Phlx'' or ''Exchange'') filed with the Securities and Exchange Commission (''SEC'' or ''Commission'') the proposed rule change as described in Items I and II below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to extend the pilot related to Rule 133, Trading Halts Due to Extraordinary Market Volatility, to the close of business on October 18, 2019.

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

The text of the proposed rule change is available on the Exchange's website at *http://nasdaqphlx.cchwallstreet.com/,* at the principal office of the Exchange, and at the Commission's Public Reference Room.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

Rule 133 provides a methodology for determining when to halt trading in all stocks due to extraordinary market volatility, *i.e.,* market-wide circuit breakers. The market-wide circuit breaker mechanism under Rule 133 was approved by the Commission to operate on a pilot basis, the term of which was to coincide with the pilot period for the Plan to Address Extraordinary Market Volatility Pursuant to Rule 608 of Regulation NMS (the ''LULD Plan''),[3] including any extensions to the pilot period for the LULD Plan.[4] The Commission published an amendment to the LULD Plan for it to operate on a permanent, rather than pilot, basis.[5]

The Exchange proposes to amend Rule 133 to untie the pilot's effectiveness from that of the LULD Plan and to extend the pilot's effectiveness to the close of business on October 18, 2019. The Exchange does not propose any additional changes to Rule 133.

Market-wide circuit breakers under Rule 133 provide an important, automatic mechanism that is invoked to promote stability and investor confidence during a period of significant stress when securities markets experience extreme broad-based declines. All U.S. equity exchanges have rules relating to market-wide circuit breakers, which are designed to slow the effects of extreme price movement through coordinated trading halts across securities markets when severe price declines reach levels that may exhaust market liquidity. Market-wide circuit breakers provide for trading halts in all equities and options markets during a severe market decline as measured by a single-day decline in the S&P 500 Index.

Pursuant to Rule 133, a market-wide trading halt will be triggered if the S&P 500 Index declines in price by specified percentages from the prior day's closing price of that index. Currently, the triggers are set at three circuit breaker thresholds: 7% (Level 1), 13% (Level 2) and 20% (Level 3). A market decline that triggers a Level 1 or Level 2 circuit breaker after 9:30 a.m. ET and before 3:25 p.m. ET would halt market-wide trading for 15 minutes, while a similar market decline at or after 3:25 p.m. ET would not halt market-wide trading. A market decline that triggers a Level 3 circuit breaker, at any time during the trading day, would halt market-wide trading for the remainder of the trading day.

The Exchange intends to file a separate proposed rule change to operate Rule 133 on a permanent, rather than pilot, basis. Extending the effectiveness of Rule 133 to the close of business on October 18, 2019 should provide the Commission adequate time to consider whether to approve the Exchange's separate proposal to operate the market-wide circuit breaker mechanism under Rule 133 on a permanent basis.

2. Statutory Basis

The Exchange believes that its proposal is consistent with Section 6(b) of the Act,[6] in general, and furthers the objectives of Section 6(b)(5) of the Act,[7] in particular, in that it is designed to promote just and equitable principles of trade, to remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general to protect investors and the public interest. The Exchange also believes that the proposed rule change promotes just and equitable principles of trade in that it promotes transparency and uniformity across markets concerning when and how to halt trading in all stocks as a result of extraordinary market volatility. Extending the market-wide circuit breaker pilot under Rule 133 an additional six months would ensure the continued, uninterrupted operation of a consistent mechanism to halt trading across the U.S. markets while the Commission considers whether to approve the pilot on a permanent basis. The proposed rule change would thus promote fair and orderly markets and the protection of investors and the public interest. Based on the foregoing, the Exchange believes the benefits to market participants from the market-wide circuit breaker mechanism under Rule 133 should continue on a pilot basis while the Commission considers whether to permanently approve Rule 133.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change implicates any competitive issues because the proposal would ensure the continued, uninterrupted operation of a consistent mechanism to halt trading across the U.S. markets while the Commission considers whether to permanently approve the market-wide circuit breaker mechanism under Rule 133. Further, the Exchange understands that FINRA and other national securities exchanges will file proposals to extend their rules regarding the market-wide circuit breaker pilot so that the market-wide circuit breaker mechanism may continue uninterrupted while the Commission considers whether to approve its operation on a permanent basis

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

No written comments were either solicited or received.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Because the foregoing proposed rule change does not: (i) Significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative for 30 days from the date on which it was filed, or such shorter time as the Commission may designate, it has become effective pursuant to Section 19(b)(3)(A) of the Act[8] and Rule 19b–4(f)(6) thereunder.[9]

[3] *See* Securities Exchange Act Release No. 67091 (May 31, 2012), 77 FR 33498 (June 6, 2012) (the ''Limit Up-Limit Down Release'').

[4] *See* Securities Exchange Act Release Nos. 67090 (May 31, 2012), 77 FR 33531 (June 6, 2012) (SR–Phlx–2011–129) (Approval Order); and 68816 (February 1, 2013), 78 FR 9760 (February 11, 2013) (SR–Phlx–2013–11) (Notice of Filing and Immediate Effectiveness of Proposed Rule Change to Delay the Operative Date of a Rule Change to Exchange Rule 133).

[5] *See* Securities Exchange Act Release Nos. 84843 (December 18, 2018), 83 FR 66464 (December 26, 2018) (Amendment No. 18 Proposing Release).

[6] 15 U.S.C. 78f(b).

[7] 15 U.S.C. 78f(b)(5).

[8] 15 U.S.C. 78s(b)(3)(A).

[9] 17 CFR 240.19b–4(f)(6).

A proposed rule change filed under Rule 19b–4(f)(6) [10] normally does not become operative for 30 days after the date of filing. However, pursuant to Rule 19b–4(f)(6)(iii),[11] the Commission may designate a shorter time if such action is consistent with the protection of investors and the public interest. The Exchange has asked the Commission to waive the 30-day operative delay so that the proposal may become operative upon filing. Extending the pilot for an additional six months will allow the uninterrupted operation of the existing pilot to halt trading across the U.S. markets while the Commission considers whether to approve the pilot on a permanent basis. The extension simply maintains the status quo. Therefore, the Commission believes that waiving the 30-day operative delay is consistent with the protection of investors and the public interest. The Commission hereby designates the proposed rule change to be operative upon filing.[12]

At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov.* Please include File Number SR–Phlx–2019–12 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.

All submissions should refer to File Number SR–Phlx–2019–12. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549 on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–Phlx–2019–12, and should be submitted on or before May 6, 2019.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[13]

Jill M. Peterson,

Assistant Secretary.

[FR Doc. 2019–07361 Filed 4–12–19; 8:45 am]

BILLING CODE 8011–01–P

[10] *Id.*

[11] 17 CFR 240.19b–4(f)(g)(iii).

[12] For purposes only of waiving the 30-day operative delay, the Commission has also considered the proposed rule's impact on efficiency, competition, and capital formation. *See* 15 U.S.C. 78c(f).

[13] 17 CFR 200.30–3(a)(12).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–85577; File No. SR–Phlx–2019–09]

Self-Regulatory Organizations; Nasdaq PHLX LLC; Notice of Filing and Immediate Effectiveness of Proposed Rule Change To Delay the Implementation of the FBMS FIX Interface To Submit Orders to a Particular Floor Broker on the Options Floor

April 9, 2019.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (''Act''),[1] and Rule 19b–4 thereunder,[2] notice is hereby given that on March 29, 2019, Nasdaq PHLX LLC (''Phlx'' or ''Exchange'') filed with the Securities and Exchange Commission (''Commission'') the proposed rule change as described in Items I and II below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to delay the implementation of the FBMS FIX Interface to submit orders to a particular Floor Broker on the options floor.

The text of the proposed rule change is available on the Exchange's website at *http://nasdaqphlx.cchwallstreet.com/,* at the principal office of the Exchange, and at the Commission's Public Reference Room.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The Exchange filed a rule change to offer a new FBMS FIX interface which connects to FBMS (''FBMS FIX Interface'') [3] to allow members and non-members to submit orders directly [4] to a Floor Broker on the Exchange's trading floor.[5] With this new protocol, a market participant desiring to submit an order

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] This new FBMS FIX Interface is a separate and distinct connection from the existing FIX interface, which allows members to send orders to the electronic match engine.

[4] The FBMS FIX Interface would allow the market participant to designate a particular Floor Broker through the use of a FIX tag.

[5] *See* Securities Exchange Act Release No. 84180 (September 18, 2018), 83 FR 48353 (September 24, 2018) (SR–Phlx–2018–58).

to the trading floor, who would today contact a Floor Broker telephonically, would be able to electronically utilize an external order management system or via instant message.[6]

FBMS FIX Interface Background

An order submitted via the FBMS FIX Interface will be created by the sender and routed to a Floor Broker. This order would be systematized so that the Floor Broker[7] automatically receives the order and may then represent the order for execution. A member or non-member would not be able to send the order directly to the System for execution. Orders entered via the FBMS FIX Interface will require the interaction of a Floor Broker. Orders will continue to be represented in the trading crowd, regardless of the method in which the order was received. Orders would be executed in the matching engine using FBMS, after all requirements for exposure have been met.[8]

Proposal

The Exchange proposed to implement this functionality in Q1 of 2019 and notify market participants of the deployment date by way of an Options Trader Alert, which will be posted on the Exchange's website. At this time, the Exchange proposes to delay the implementation until Q2 of 2019. The Exchange would still notify market participants via an Options Trader Alert.

2. Statutory Basis

The Exchange believes that its proposal is consistent with Section 6(b) of the Act,[9] in general, and furthers the objectives of Section 6(b)(5) of the Act,[10] in particular, in that it is designed to promote just and equitable principles of trade, to remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general to protect investors and the public interest, by proposing delaying the implementation of the FBMS FIX Interface to allow for additional testing. The Exchange believes that additional testing will ensure a successful launch of the FBMS FIX Interface.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act. The Exchange's proposal to delay the adoption of the FBMS FIX Interface does not impose an undue burden on competition. Delaying the FBMS FIX Interface will allow the Exchange additional time to test the functionality.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

No written comments were either solicited or received.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Because the foregoing proposed rule change does not: (i) Significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative for 30 days from the date on which it was filed, or such shorter time as the Commission may designate, it has become effective pursuant to Section 19(b)(3)(A) of the Act[11] and Rule 19b–4(f)(6) thereunder.[12]

A proposed rule change filed pursuant to Rule 19b–4(f)(6) under the Act[13] normally does not become operative for 30 days after the date of its filing. However, Rule 19b–4(f)(6)(iii)[14] permits the Commission to designate a shorter time if such action is consistent with the protection of investors and the public interest. The Exchange has requested that the Commission waive the 30-day operative delay so that the proposed rule change may become operative upon filing. Waiver of the operative delay would allow the Exchange to immediately delay the implementation of the FBMS Fix Interface to allow the Exchange additional time to successfully implement this functionality. Therefore, the Commission believes that waiver of the 30-day operative delay is consistent with the protection of investors and the public interest. Accordingly, the Commission hereby waives the operative delay and designates the proposed rule change operative upon filing.[15]

At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule change should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml);* or
- Send an email to *rule-comments@sec.gov*. Please include File Number SR–Phlx–2019–09 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.

All submissions should refer to File Number SR–Phlx–2019–09. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml).* Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the

[6] An audit trail is maintained today for all orders received by a Floor Broker.

[7] A Floor Broker's employee may also send an order into FBMS or the System on behalf of the Floor Broker.

[8] The FBMS FIX Interface will allow the following types of orders to be submitted directly to a Floor Broker: Simple Orders, Multi-leg Orders, Cross and Non-Cross Orders, Simple Cancels, Cancel and Replacement Orders and Floor Qualified Contingent Cross Orders.

[9] 15 U.S.C. 78f(b).

[10] 15 U.S.C. 78f(b)(5).

[11] 15 U.S.C. 78s(b)(3)(A).

[12] 17 CFR 240.19b–4(f)(6). In addition, Rule 19b–4(f)(6)(iii) requires a self-regulatory organization to give the Commission written notice of its intent to file the proposed rule change, along with a brief description and text of the proposed rule change, at least five business days prior to the date of filing of the proposed rule change, or such shorter time as designated by the Commission. The Exchange has satisfied this requirement.

[13] 17 CFR 240.19b–4(f)(6).

[14] 17 CFR 240.19b–4(f)(6)(iii).

[15] For purposes only of waiving the 30-day operative delay, the Commission also has considered the proposed rule's impact on efficiency, competition, and capital formation. *See* 15 U.S.C. 78c(f).

provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–Phlx–2019–09 and should be submitted on or before May 6, 2019.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[16]

Jill M. Peterson,

Assistant Secretary.

[FR Doc. 2019–07363 Filed 4–12–19; 8:45 am]

BILLING CODE 8011–01–P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–85561; File No. SR–NYSEArca–2019–23]

Self-Regulatory Organizations; NYSE Arca, Inc.; Notice of Filing and Immediate Effectiveness of Proposed Rule Change To Extend the Pilot Related to Rule 7.12–E, Trading Halts Due to Extraordinary Market Volatility

April 9, 2019.

Pursuant to Section 19(b)(1)[1] of the Securities Exchange Act of 1934 (the ''Act'')[2] and Rule 19b–4 thereunder,[3] notice is hereby given that, on April 5, 2019, NYSE Arca, Inc. (''NYSE Arca'' or the ''Exchange'') filed with the Securities and Exchange Commission (the ''Commission'') the proposed rule change as described in Items I and II below, which Items have been prepared by the self-regulatory organization. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to extend the pilot related to Rule 7.12–E, Trading Halts Due to Extraordinary Market Volatility, to the close of business on October 18, 2019. The proposed rule change is available on the Exchange's website at *www.nyse.com,* at the principal office of the Exchange, and at the Commission's Public Reference Room.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the self-regulatory organization included statements concerning the purpose of, and basis for, the proposed rule change and discussed any comments it received on the proposed rule change. The text of those statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant parts of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

Rule 7.12–E provides a methodology for determining when to halt trading in all stocks due to extraordinary market volatility, *i.e.,* market-wide circuit breakers. The market-wide circuit breaker mechanism under Rule 7.12–E was approved by the Commission to operate on a pilot basis, the term of which was to coincide with the pilot period for the Plan to Address Extraordinary Market Volatility Pursuant to Rule 608 of Regulation NMS (the ''LULD Plan''), including any extensions to the pilot period for the LULD Plan. The Commission published an amendment to the LULD Plan for it to operate on a permanent, rather than pilot, basis.

The Exchange proposes to amend Rule 7.12–E to untie the pilot's effectiveness from that of the LULD Plan and to extend the pilot's effectiveness to the close of business on October 18, 2019. The Exchange does not propose any additional changes to Rule 7.12–E.

Market-wide circuit breakers under Rule 7.12–E provide an important, automatic mechanism that is invoked to promote stability and investor confidence during a period of significant stress when securities markets experience extreme broad-based declines. All U.S. equity exchanges have rules relating to market-wide circuit breakers, which are designed to slow the effects of extreme price movement through coordinated trading halts across securities markets when severe price declines reach levels that may exhaust market liquidity. Market-wide circuit breakers provide for trading halts in all equities and options markets during a severe market decline as measured by a single-day decline in the S&P 500 Index.

Pursuant to Rule 7.12–E, a market-wide trading halt will be triggered if the S&P 500 Index declines in price by specified percentages from the prior day's closing price of that index. Currently, the triggers are set at three circuit breaker thresholds: 7% (Level 1), 13% (Level 2) and 20% (Level 3). A market decline that triggers a Level 1 or Level 2 circuit breaker after 9:30 a.m. ET and before 3:25 p.m. ET would halt market-wide trading for 15 minutes, while a similar market decline at or after 3:25 p.m. ET would not halt market-wide trading. A market decline that triggers a Level 3 circuit breaker, at any time during the trading day, would halt market-wide trading for the remainder of the trading day.

The Exchange intends to file a separate proposed rule change with the Commission to operate Rule 7.12–E on a permanent, rather than pilot, basis. Extending the effectiveness of Rule 7.12–E to the close of business on October 18, 2019 should provide the Commission adequate time to consider whether to approve the Exchange's separate proposal to operate the market-wide circuit breaker mechanism under Rule 7.12–E on a permanent basis.

2. Statutory Basis

The Exchange believes that its proposal is consistent with the requirements of Sections 6(b)[4] and 6(b)(5) of the Act,[5] in particular, because it would promote just and equitable principles of trade, remove impediments to, and perfect the mechanism of, a free and open market and a national market system. The Exchange also believes that the proposed rule change promotes just and equitable principles of trade in that it promotes transparency and uniformity across markets concerning when and how to halt trading in all stocks as a result of extraordinary market volatility. Extending the market-wide circuit breaker pilot under Rule 7.12–E an additional six months would ensure the continued, uninterrupted operation of a consistent mechanism to halt trading across the U.S. markets while the Commission considers whether to approve the pilot on a permanent basis. The proposed rule change would thus promote fair and orderly markets and the protection of investors and the public interest. Based on the foregoing,

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[16] 17 CFR 200.30–3(a)(12).

[1] 15 U.S.C.78s(b)(1).

[2] 15 U.S.C. 78a.

[3] 17 CFR 240.19b–4.

[4] 15 U.S.C. 78f(b).

[5] 15 U.S.C. 78f(b)(5).

the Exchange believes the benefits to market participants from the market-wide circuit breaker mechanism under Rule 7.12–E should continue on a pilot basis while the Commission considers whether to permanently approve Rule 7.12–E.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change implicates any competitive issues because the proposal would ensure the continued, uninterrupted operation of a consistent mechanism to halt trading across the U.S. markets while the Commission considers whether to permanently approve the market-wide circuit breaker mechanism under Rule 7.12–E. Further, the Exchange understands that FINRA and other national securities exchanges will file proposals to extend their rules regarding the market-wide circuit breaker pilot so that the market-wide circuit breaker mechanism may continue uninterrupted while the Commission considers whether to approve its operation on a permanent basis.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

No written comments were solicited or received with respect to the proposed rule change.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Because the foregoing proposed rule change does not: (i) Significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative for 30 days from the date on which it was filed, or such shorter time as the Commission may designate, it has become effective pursuant to Section 19(b)(3)(A) of the Act [6] and Rule 19b–4(f)(6) thereunder.[7]

A proposed rule change filed under Rule 19b–4(f)(6) [8] normally does not become operative for 30 days after the date of filing. However, pursuant to Rule 19b–4(f)(6)(iii),[9] the Commission may designate a shorter time if such action is consistent with the protection of investors and the public interest. The Exchange has asked the Commission to waive the 30-day operative delay so that the proposal may become operative upon filing. Extending the pilot for an additional six months will allow the uninterrupted operation of the existing pilot to halt trading across the U.S. markets while the Commission considers whether to approve the pilot on a permanent basis. The extension simply maintains the status quo. Therefore, the Commission believes that waiving the 30-day operative delay is consistent with the protection of investors and the public interest. The Commission hereby designates the proposed rule change to be operative upon filing.[10]

At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov.* Please include File Number SR–NYSEArca–2019–23 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.

All submissions should refer to File Number SR–NYSEArca–2019–23. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549 on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–NYSEArca–2019–23, and should be submitted on or before May 6, 2019.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[11]

Jill M. Peterson,

Assistant Secretary.

[FR Doc. 2019–07375 Filed 4–12–19; 8:45 am]

BILLING CODE 8011–01–P

[6] 15 U.S.C. 78s(b)(3)(A).

[7] 17 CFR 240.19b–4(f)(6).

[8] *Id.*

[9] 17 CFR 240.19b–4(f)(g)(iii).

[10] For purposes only of waiving the 30-day operative delay, the Commission has also considered the proposed rule's impact on efficiency, competition, and capital formation. *See* 15 U.S.C. 78c(f).

[11] 17 CFR 200.30–3(a)(12).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–85571; File No. SR–PEARL–2019–14]

Self-Regulatory Organizations; Miami PEARL, LLC; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend Exchange Rule 530, Limit Up-Limit Down, and Exchange Rule 521, Nullification and Adjustment of Options Transactions Including Obvious Errors

April 9, 2019.

Pursuant to the provisions of Section 19(b)(1) of the Securities Exchange Act of 1934 (''Act'') [1] and Rule 19b–4 thereunder,[2] notice is hereby given that on April 5, 2019, Miami PEARL, LLC (''MIAX PEARL'' or the ''Exchange'') filed with the Securities and Exchange Commission (''Commission'') a proposed rule change as described in Items I and II below, which Items have been prepared by the Exchange. The Commission is publishing this notice to

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange is filing a proposal to amend (i) Exchange Rule 530, Limit Up-Limit Down, and (ii) Exchange Rule 521, Nullification and Adjustment of Options Transactions Including Obvious Errors, Interpretations and Policies .01, to extend the pilot to the close of business on October 18, 2019, for certain options market rules that are linked to the equity market Plan to Address Extraordinary Market Volatility.

The text of the proposed rule change is available on the Exchange's website at *http://www.miaxoptions.com/rule-filings/pearl* at MIAX PEARL's principal office, and at the Commission's Public Reference Room.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The purpose of the proposed rule change is to extend the pilot to the close of business on October 18, 2019, for certain options market rules that are linked to the equity market Plan to Address Extraordinary Market Volatility (the ''Limit Up-Limit Down Plan'' or the ''Plan''). This change is being proposed in connection with a proposed amendment to the Limit Up-Limit Down Plan that would allow the Plan to continue to operate on a permanent basis (''Amendment 18'').

In an attempt to address extraordinary market volatility in NMS Stock, and, in particular, events like the severe volatility on May 6, 2010, U.S. national securities exchanges and the Financial Industry Regulatory Authority, Inc. (collectively, ''Participants'') drafted the Plan pursuant to Rule 608 of Regulation NMS and under the Act.[3] On May 31, 2012, the Commission approved the Plan, as amended, on a one-year pilot basis.[4]

The Commission recently published an Amendment 18, which would allow the Plan to operate on a permanent, rather than pilot, basis.[5] In connection with this change, the Exchange proposes to amend the Options Pilots to expire at the close of business on October 18, 2019—*i.e.,* six months after the expiration of the current pilot period for the Plan. Specifically, the Exchange proposes to amend Exchange Rule 530 and Rule 521, Interpretation and Policy .01 to untie the Options Pilot's effectiveness from that of the Plan and to extend the Options Pilot's effectiveness to the close of business on October 18, 2019. The Exchange understands that the other national securities exchanges will also file similar proposals to extend their respective pilot programs, the substance of which are identical to the proposal.

The Exchange does not propose any additional changes to Exchange Rules 530 or Rule 521, Interpretation and Policy .01. The Exchange believes the benefits to market participants from the Options Pilots should continue on a limited six month pilot basis after Commission approves the Plan to operate on a permanent basis. Assuming the Plan is approved by the Commission to operate on a permanent, rather than pilot, basis the Exchange intends to assess whether additional changes should also be made to the Options Pilots. Extending the Options Pilots for an additional six months should provide the Exchange and other national securities exchanges additional time to consider further amendments to their rules in light of proposed Amendment 18.

2. Statutory Basis

The Exchange believes that its proposed rule change is consistent with Section 6(b) of the Act[6] in general, and furthers the objectives of Section 6(b)(5) of the Act[7] in particular, in that it is designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in facilitating transactions in securities, to remove impediments to and perfect the mechanisms of a free and open market and a national market system and, in general, to protect investors and the public interest and not to permit unfair discrimination between customers, issuers, brokers, or dealers. The Exchange believes that the proposed rule change promotes just and equitable principles of trade in that it promotes transparency and uniformity across markets concerning rules for options markets adopted to coincide with the Plan. The Exchange believes that extending the Options Pilots for an additional six months would help assure that the rules subject to such Pilots are either similarly made permanent, amended or removed, following additional discussion and analysis by the Exchange and other national securities exchanges. The proposed rule change would also help assure that such rules are not immediately eliminated, thus furthering fair and orderly markets, the protection of investors and the public interest. Based on the foregoing, the Exchange believes the Options Pilots should continue to be in effect on a pilot basis while the Exchange and the other national securities exchanges consider and develop a permanent proposal for such rules.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act. The proposal would ensure the continued, uninterrupted operation of the Options Pilots while the Exchange and other national securities exchanges consider further amendments to these rules in light of proposed Amendment 18. The Exchange understands that the other national securities exchanges will also file similar proposals to extend their respective pilot programs, the substance of which are identical to this proposal. Thus, the proposed rule change will help to ensure consistency across market centers without implicating any competitive issues.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

Written comments were neither solicited nor received.

[3] *See* Securities Exchange Act Release No. 64547 (May 25, 2011), 76 FR 31647 (June 1, 2011) (File No. 4–631).

[4] *See* Securities and Exchange Act Release No. 67091 (May 31, 2012), 77 FR 33498 (June 6, 2012).

[5] *See* Securities Exchange Act Release Nos. 84843 (December 18, 2018), 83 FR 66464 (December 26, 2018) (Amendment No. 18 Proposing Release).

[6] 15 U.S.C. 78f(b).

[7] 15 U.S.C. 78f(b)(5).

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Because the foregoing proposed rule change does not: (i) Significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative for 30 days from the date on which it was filed, or such shorter time as the Commission may designate, it has become effective pursuant to Section 19(b)(3)(A)(iii) of the Act [8] and subparagraph (f)(6) of Rule 19b–4 thereunder.[9]

A proposed rule change filed under Rule 19b–4(f)(6) [10] normally does not become operative prior to 30 days after the date of the filing. However, Rule 19b–4(f)(6)(iii) [11] permits the Commission to designate a shorter time if such action is consistent with the protection of investors and the public interest. The Exchange has asked the Commission to waive the 30-day operative delay so that the proposed rule change may become effective and operative immediately upon filing. The Commission believes that waiving the 30-day operative delay is consistent with the protection of investors and the public interest, as it will allow the current options pilots linked to the Plan to continue uninterrupted, without any changes, while the Exchange and the other national securities exchanges consider and develop a permanent proposal for these options pilots. For this reason, the Commission hereby waives the 30-day operative delay and designates the proposed rule change as operative upon filing.[12]

At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is: (i) Necessary or appropriate in the public interest; (ii) for the protection of investors; or (iii) otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov.* Please include File Number SR–PEARL–2019–14 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.

All submissions should refer to File Number SR–PEARL–2019–14. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–PEARL–2019–14 and should be submitted on or before May 6, 2019.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[13]

Jill M. Peterson,

Assistant Secretary.

[FR Doc. 2019–07367 Filed 4–12–19; 8:45 am]

BILLING CODE 8011–01–P

[8] 15 U.S.C. 78s(b)(3)(A)(iii).

[9] 17 CFR 240.19b–4(f)(6). In addition, Rule 19b–4(f)(6)(iii) requires a self-regulatory organization to give the Commission written notice of its intent to file the proposed rule change, along with a brief description and text of the proposed rule change, at least five business days prior to the date of filing of the proposed rule change, or such shorter time as designated by the Commission. The Exchange has satisfied this requirement.

[10] 17 CFR 240.19b–4(f)(6).

[11] 17 CFR 240.19b–4(f)(6)(iii).

[12] For purposes only of waiving the 30-day operative delay, the Commission has also considered the proposed rule's impact on efficiency, competition, and capital formation. *See* 15 U.S.C. 78c(f).

[13] 17 CFR 200.30–3(a)(12).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–85566; File No. SR–IEX–2019–03]

Self-Regulatory Organizations; Investors Exchange LLC; Notice of Filing and Immediate Effectiveness of Proposed Rule Change To Modify the Listing Requirements Contained in Rule 14.412 To Change the Definition of Market Value for Purposes of the Shareholder Approval Rules and Eliminate the Requirement for Shareholder Approval of Issuances at a Price Less Than Book Value but Greater Than Market Value

April 9, 2019.

Pursuant to Section 19(b)(1) [1] of the Securities Exchange Act of 1934 (''Act'') [2] and Rule 19b–4 thereunder,[3] notice is hereby given that on March 26, 2019, Investors Exchange LLC (''IEX'' or the ''Exchange'') filed with the Securities and Exchange Commission (''Commission'') the proposed rule change as described in Items I and II below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

Pursuant to the provisions of Section 19(b)(1) under the Securities Exchange Act of 1934 (''Act''),[4] and Rule 19b–4 thereunder,[5] IEX is filing with the Commission a proposed rule change to modify the listing requirements contained in IEX Rule 14.412(d) to change the definition of market value for purposes of the shareholder approval rules and to eliminate the requirement for shareholder approval of issuances at a price less than book value but greater than market value. The Exchange has designated this proposal as non-controversial and provided the Commission with the notice required by

[1] 15 U.S.C. 78s(b)(1).

[2] 15 U.S.C. 78a.

[3] 17 CFR 240.19b–4.

[4] 15 U.S.C. 78s(b)(1).

[5] 17 CFR 240.19b–4.

Rule 19b–4(f)(6)(iii) under the Act.[6] The text of the proposed rule change is available at the Exchange's website at *www.iextrading.com,* at the principal office of the Exchange, and at the Commission's Public Reference Room.

II. Self-Regulatory Organization's Statement of the Purpose of, and the Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the self-regulatory organization included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statement may be examined at the places specified in Item IV below. The self-regulatory organization has prepared summaries, set forth in Sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and the Statutory Basis for, the Proposed Rule Change

1. Purpose

IEX Rule 14.412(d) requires shareholder approval for security issuances for less than the greater of book or market value (other than in the context of a public offering) if either (a) an issuance equals 20% or more of the outstanding common stock or outstanding voting power or (b) a smaller issuance coupled with sales by officers, directors or substantial shareholders meets or exceeds the 20% threshold. IEX Rule 14.002(a)(21) defines ''market value'' as the consolidated closing bid price (multiplied by the measure to be valued). As described more fully below, IEX proposes to amend Rule 14.412(d) to change the definition of market value for purposes of the shareholder approval rules and to eliminate the requirement for shareholder approval of issuances at a price less than book value but greater than market value. This proposed amendment is substantially similar to an amendment NASDAQ recently made to its own shareholder approval requirements.[7]

I. Definition of Market Value

IEX Rule 14.412(d) requires an IEX-listed company to obtain shareholder approval when issuing common stock or securities convertible into or exercisable for common stock, which alone or together with sales by officers, directors or Substantial Shareholders of the Company,[8] equals 20% or more of the common shares or 20% or more of the voting power outstanding at a price less than the greater of the book value or market value of that stock. Rule 14.002(a)(21) defines ''market value'' as the consolidated closing bid price (multiplied by the measure to be valued).

The Exchange believes that the consolidated closing bid price may not be transparent to companies and investors and does not always reflect an actual price at which a security has traded. The Exchange also believes that, generally speaking, the price of an executed trade is viewed as a more reliable indicator of value than a bid quotation, and the more shares executed, the more reliable the price is considered. Further, it is the Exchange's understanding that in structuring transactions, investors and companies often rely on an average price over a prescribed period of time for pricing issuances because it can smooth out unusual fluctuations in price.[9] Accordingly, IEX proposes to modify the measure of market value for purposes of Rule 14.412(d) from the consolidated closing bid price to the lower of: (i) The closing price (as reflected on *iextrading.com*) immediately preceding the signing of a binding agreement; or (ii) the average closing price of the common stock (as reflected on *iextrading.com*) for the five trading days immediately preceding the signing of a binding agreement.

In addition, the ability of an IEX-listed company to issue securities in a private placement without shareholder approval will continue to be limited by other important IEX rules.[10] For example, any discounted issuance of stock to a company's officers, directors, employees, or consultants would require shareholder approval under the Exchange's equity compensation rules.[11] In addition, shareholder approval would be required if the issuance resulted in a change of control and for the acquisition of stock or assets of another company, including where an issuance increases voting power or common shares by 5% or more and an officer or director or substantial security holder has a 5% direct or indirect interest (or collectively 10%) in the company or assets to be acquired.[12]

A. Closing Price

The closing price reported on *iextrading.com* is the IEX Official Closing Price.[13] In the case of an IEX-listed security, the IEX Official Closing Price is the price of the Closing Auction.[14] The IEX closing auction is designed to gather the maximum liquidity available for execution at the close of trading, and to maximize the number of shares executed at a single price at the close of the trading day. The closing auction promotes accurate closing prices by offering specialized orders available only during the closing auction and integrating those orders with regular orders submitted during the trading day that are still available at the close. The closing auction is made highly transparent to all investors through the widespread dissemination of stock-by-stock information about the closing auction, including the potential price and size of the closing auction. IEX believes its closing auction is a valuable pricing tool for issuers, traders, and investors alike. For these reasons, IEX believes that the closing price reported on *iextrading.com* is a better reflection of the market price of a security than the closing bid price. This proposal is consistent with the approach of other exchanges.[15]

Further, IEX believes it is appropriate to codify in Rule 14.412(d) that *iextrading.com* is the appropriate source for closing price information in view of the variety of available market data sources.[16]

B. Five-Day Average Price

As noted above, the Exchange understands that in structuring

[6] 17 CFR 240.19b–4(f)(6)(iii).

[7] *See* Exchange Act Release No. 34–84287 (September 26, 2018) (SR–NASDAQ–2018–008); 83 FR 49599 (October 2, 2018).

[8] *See* IEX Rule 14.412(e)(3).

[9] *See, e.g.,* Exchange Act Release No. 84287 (September 26, 2018) (SR–NASDAQ–2018–008); 83 FR 49599 (October 2, 2018) at 49601 and Exchange Act Release No. 84821 (December 14, 2018) (SR–NYSE–2018–54); 83 FR 65378 (December 20, 2018) at 65380.

[10] *See, e.g.,* IEX Rule 14.412(a), (b) and (c). If shareholder approval is not required under IEX Rule 14.412(d) it could still be required under one of the other shareholder approval provisions of IEX Rule 14.412 since these provisions apply independently of each other.

[11] *See* IEX Rule 14.412(c).

[12] *See* IEX Rule 14.412(a) and (b).

[13] *See* IEX Rules 1.160(v) and 11.350(d)(2)(B).

[14] In the event that there is no Closing Auction, the IEX Official Closing Price will be the price of the Final Last Sale Eligible Trade. *See* IEX Rule 11.350(d)(2)(B). See also, IEX Rule 11.350(a)(7) which defines ''Final Last Sale Eligible Trade''.

[15] *See* Nasdaq Rule 5635(d)(1) and Section 312.04(i) of the New York Stock Exchange Listed Company Manual, each of which utilize the closing price for purposes of determining market value for purposes of comparable shareholder approval requirements.

[16] The closing price in each IEX-listed security is published on *iextrading.com* in near real time and is available without registration or a fee. IEX does not currently intend to charge a fee for access to closing price information or otherwise restrict availability of this information. In the event that IEX subsequently determines to do so, it will file a proposed rule change under Section 19(b) of the Act with respect to such change and address any impact to compliance with Rule 14.412(d) thereto.

transactions involving the issuance of securities of a listed company, investors and companies often rely on an average price over a prescribed period of time for pricing issuances because it can smooth out unusual fluctuations in price on a single day. However, there are potential negative consequences to using a five-day average as the sole measure of whether shareholder approval is required. For example, in a declining market, the five-day average price will always be above the current market price, thus making it difficult for companies to close transactions because investors could buy shares in the market at a price below the five-day average price. Conversely, in a rising market, the five-day average price will appear to be a discount to the closing price. In addition, if material news is announced during the five-day period, the average could be a worse reflection of the market value than the closing price after the news is disclosed. Nonetheless, IEX believes that these risks are already accepted in the market, as evidenced by the use of an average price in transactions that do not require shareholder approval under other exchanges' listing rules,[17] such as where less than 20% of the outstanding shares are issuable in the transaction, notwithstanding the risk of possible unfavorable price movements borne by both the issuer and the purchaser of the securities during the time between when the agreement is executed and the closing of the transaction. However, the Exchange believes that concerns regarding the use of solely a five-day average price are valid, and as such, proposes to amend Rule 14.412(d) to define market value as the lower of the closing price immediately preceding the signing of the binding agreement or the five-day average of the closing price as the measure of market value for purposes of the shareholder approval rules. Thus, an issuance would not require an approval by the company's shareholders, so long as it is at a price that is greater than the lower of those measures.[18] To improve the readability of the rule, IEX proposes to define this new concept as the ''Minimum Price'' and eliminate references to book value and market value from Rule 14.412(d).

II. Book Value

Consistent with the proposed use of the Minimum Price to determine whether shareholder approval is required for an issuance of securities under Rule 14.412, IEX proposes to eliminate the requirement for shareholder approval of issuances at a price less than book value but greater than market value. Book value is an accounting measure and its calculation is based on the historic cost of assets, not their current value. As such, the Exchange does not believe it is an appropriate measure of whether a transaction is dilutive or should otherwise require shareholder approval. IEX understands that when the market price is below the book value, the book value test can appear arbitrary and have a disproportionate impact on companies in certain industries and at certain times. For example, during the financial crisis in 2008 and 2009, many banks and finance-related companies temporarily traded below book value. Similarly, companies that make large investments in infrastructure may trade below the accounting carrying value of those assets. In these circumstances, the Exchange believes that companies are precluded based on purely accounting reasons from quickly raising capital on terms that are at or above the market price. Further, the Exchange is not aware that shareholders of listed companies consider book value to be a material factor when they are asked to vote to approve a proposed transaction.

III. Other Changes

To improve the readability of Rule 14.412(d) IEX proposes to define ''20% Issuance'' as ''a transaction, other than a public offering as defined in Supplementary Material .03, involving the sale, issuance or potential issuance by the Company of common stock (or securities convertible into or exercisable for common stock), which alone or together with sales by officers, directors or Substantial Shareholders of the Company, equals 20% or more of the common stock or 20% or more of the voting power outstanding before the issuance.'' This definition combines the situations described in existing Rule 14.412(d)(1) and (d)(2) and makes no substantive change but for the change to the pricing tests, as described above, such that shareholder approval would be required under the same circumstances for a 20% Issuance as under existing Rule 14.412(d).

IEX also proposes to amend the title of Rule 14.412(d) and the preamble to Rule 14.412 to replace references to ''private placements'' to ''transactions other than public offerings'' to conform the language in the title of Rule 14.412(d) and the preamble to the language in the rule text and that of Supplementary Material .03, which provides the definition of a public offering. Of course, private placements would continue to be considered ''transactions other than public offerings.''

Finally, IEX proposes to amend Supplementary Material .03 and .04, which describe how IEX applies the shareholder approval requirements, to conform references to book and market value with the new definition of Minimum Price, as described above, and to utilize the newly defined term ''20% Issuance.''

2. Statutory Basis

IEX believes that the proposed rule change is consistent with Section 6(b)[19] of the Act in general, and furthers the objectives of Section 6(b)(5) of the Act,[20] in particular, in that it is designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in facilitating transactions in securities, to remove impediments to and perfect the mechanism of a free and open market and a national market system and, in general, to protect investors and the public interest; and is not designed to permit unfair discrimination between customers, issuers, brokers, or dealers.

Definition of Market Value

The proposed rule change will modify the minimum price at which a 20% Issuance would not need shareholder approval from the closing bid price to the lower of: (i) The closing price (as reflected on *iextrading.com*) immediately preceding the signing of a binding agreement; or (ii) the average closing price of the common stock (as reflected on *iextrading.com*) for the five trading days immediately preceding the signing of the binding agreement.

IEX believes that allowing issuers to price transactions at the closing price (as reflected on *iextrading.com*) rather than closing consolidated bid price will perfect the mechanism of a free and open market, and protect investors and the public interest because the closing price will represent an actual sale at the most liquid time of the day, which generally occurs at the same or greater

[17] *See e.g.,* Nasdaq Rule 5635 and Section 312.03 of the NYSE Listed Company Manual.

[18] Issuances below Market Value to officers, directors, employees, or consultants are, and will continue to be, subject to the requirements of Rule 14.412(c). IEX will continue to use the definition of Market Value in Rule 14.002(a)(21), which provides that Market Value means the consolidated closing bid price multiplied by the measure to be valued, for purposes of Rule 14.412(c) as well as other IEX listing rules that include a Market Value component.

[19] 15 U.S.C. 78f.

[20] 15 U.S.C. 78f(b)(5).

price than the bid price.[21] As discussed in the Purpose section, the closing price is generally derived from the IEX closing auction, which is designed to gather the maximum liquidity available for execution at the close of trading, and to maximize the number of shares executed at a single price at the close of the trading day. The closing auction is made highly transparent to all investors through the widespread dissemination of stock-by-stock information about the closing auction, including the potential price and size of the closing auction. IEX thus believes its closing auction is a valuable pricing tool for issuers, traders, and investors alike. For these reasons, IEX believes that the closing price reported on *iextrading.com* is a better reflection of the market price of a security than the closing bid price, for purposes of determining whether a 20% Issuance requires shareholder approval, and is thus consistent with perfecting the mechanism of a free and open market, and protection of investors and the public interest.

Allowing share issuances to be priced at the five-day average of the closing price will further align IEX's requirements with how many transactions are structured, such as transactions where Rule 14.412(d) is not implicated because the issuance is for less than 20% of the common stock and the parties rely on the five-day average for pricing to smooth out unusual fluctuations in price. In so doing, the proposed rule change will perfect the mechanism of a free and open market. Further, allowing a five-day average price continues to protect investors and the public interest because it will allow companies and investors to price transactions in a manner designed to eliminate aberrant pricing resulting from unusual transactions on the day of a transaction. Maintaining the allowable average at just a five-day period also protects investors by ensuring the period is not too long, such that it would result in the price being distorted by ordinary past market movements and other outdated events. In a market that rises each day of the period, the five-day average will be less than the price at the end of the period, but would still be higher than the price at the start of such period. Further, IEX understands that when selecting the appropriate price for a transaction, company officers and directors also have to consider their state law structural safeguards, including fiduciary responsibilities, intended to protect shareholder interests.

In addition, because prices could be displayed from numerous data sources on different websites, to provide certainty about the appropriate price, IEX proposes to codify within the rule that *iextrading.com* is the appropriate source of the closing price information, which is available in near real time and without registration or fee. Because the closing bid price is not included in many public data feeds, this requirement will promote just and equitable principles of trade and remove impediments to and perfect the mechanism of a free and open market because it will improve the transparency of the rule and provide additional certainty to all market participants about the appropriate price to be used in determining if shareholder approval is required.

Additionally, IEX believes that where two alternative measures of value exist that both reasonably approximate the value of listed securities, defining the Minimum Price as the lower of those values allows issuers the flexibility to use either measure because they can also sell securities at a price greater than the Minimum Price without needing shareholder approval. In the Exchange's view, this flexibility, and the certainty that a transaction can be structured at either value in a manner that will not require shareholder approval, further perfects the mechanism of a free and open market without diminishing the existing investor protections of the Rule 14.412(d).

Book Value

IEX also believes that eliminating the requirement for shareholder approval of issuances at a price less than book value but greater than market value does not diminish the existing investor protections of Rule 14.412(d). Book value is primarily an accounting measure calculated based on historic cost and is generally perceived as an inappropriate measure of the current value of a stock. IEX also understands that the existing book value test can appear arbitrary and have a disproportionate impact on companies in certain industries and at certain times. For example, during the financial crisis in 2008 and 2009, many banks and finance-related companies traded below book value. Similarly, companies that make large investments in infrastructure may trade below the accounting carrying value of those assets. Because the Exchange believes that book value is not an appropriate measure of the current value of a stock, the elimination of the requirement for shareholder approval of issuances at a price less than book value but greater than market value will remove an impediment to, and perfect the mechanism of, a free and open market, which currently unfairly burdens companies in certain industries, without meaningfully diminishing the investor protections of Rule 14.412(d).

Other Changes

To improve the readability of Rule 14.412(d), IEX proposes to define ''20% Issuance'' as ''a transaction, other than a public offering as defined in Supplementary Material .03 to Rule 14.412(d), involving the sale, issuance or potential issuance by the Company of common stock (or securities convertible into or exercisable for common stock), which alone or together with sales by officers, directors or Substantial Shareholders of the Company, equals 20% or more of common stock or 20% or more of the voting power outstanding before the issuance.'' This definition combines the situations described in existing Rule 14.412(d)(1) and (d)(2) but makes no substantive change to the meaning of the rule. Under the proposed rule, but for the separate change to the pricing test, shareholder approval would be required under the same circumstances for a 20% Issuance as under existing Rule 14.412(d). IEX believes that the improved readability of the rule will perfect the mechanism of a free and open market by making the rule easier to understand and apply.

IEX also believes that amending the title of Rule 14.412(d) and the preamble to Rule 14.412 to replace references to ''private placements'' to ''transactions other than public offerings'' to conform to the language in the rule text and Supplementary Material .03 to Rule 14.412(d), which provides the definition of a public offering, will perfect the mechanism of a free and open market by making the rule easier to understand and apply. Finally, IEX believes that amending Supplementary Material .03 and .04 to Rule 14.412, which describe how IEX applies the shareholder approval requirements, to conform references to book and market value with the new definition of Minimum Price, as described above, and to utilize the newly defined term ''20% Issuance'' will perfect the mechanism of a free and open market by eliminating confusion caused by references to a measure that is no longer applicable and by making the rule easier to understand and apply.

The Exchange also notes that the proposed rule change is substantially identical to existing Nasdaq rules that were approved by the Commission.[22] The Exchange believes that the same

[21] Sales typically take place between the bid and ask prices.

[22] *See supra* note 7.

factors and analysis that led to the Commission's approval of the comparable Nasdaq rule change are applicable to IEX's proposed rule change. Consequently, the Exchange does not believe that the proposed rule change raises any new or novel issues.

B. Self-Regulatory Organization's Statement on Burden on Competition

IEX does not believe that the proposed rule change will result in any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act. The proposed rule change is designed to promote consistent and fair regulation, rather than for any competitive purpose. The proposed rule change would revise requirements that could burden issuers by unnecessarily limiting the circumstances where they can sell securities without shareholder approval. With respect to intramarket competition, all listed companies would be affected in the same manner by these changes. With respect to intermarket competition, the Exchange does not believe that the proposed change will result in a burden on competition since other listing exchanges have comparable rules and listed companies have a choice of where to list. As such, these changes are neither intended to, nor expected to, impose any burden on competition.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

Written comments were neither solicited nor received.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

The Exchange has filed the proposed rule change pursuant to Section 19(b)(3)(A) of the Act [23] and Rule 19b–4(f)(6) thereunder.[24] Because the proposed rule change does not: (i) Significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative for 30 days from the date on which it was filed, or such shorter time as the Commission may designate, it has become effective pursuant to Section 19(b)(3)(A) of the Act and Rule 19b–4(f)(6) thereunder.[25]

At any time within 60 days of the filing of such proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov.* Please include File Number SR–IEX–2019–03 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.

All submissions should refer to File Number SR–IEX–2019–03. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549 on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of such filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–IEX–2019–03, and should be submitted on or before May 6, 2019.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[26]

Jill M. Peterson,

Assistant Secretary.

[FR Doc. 2019–07370 Filed 4–12–19; 8:45 am]

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[23] 15 U.S.C. 78s(b)(3)(A)(iii).

[24] 17 CFR 240.19b–4(f)(6).

[25] In addition, Rule 19b–4(f)(6)(iii) requires a self-regulatory organization to give the Commission written notice of its intent to file the proposed rule change at least five business days prior to the date of filing of the proposed rule change, or such shorter time as designated by the Commission. The Exchange has satisfied this requirement.

[26] 17 CFR 200.30–3(a)(12).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–85564; File No. SR–NYSEAMER–2019–14]

Self-Regulatory Organizations; NYSE American LLC; Notice of Filing and Immediate Effectiveness of Proposed Rule Change To Extend the Pilot Related to Rule 7.12E, Trading Halts Due to Extraordinary Market Volatility

April 9, 2019.

Pursuant to Section 19(b)(1) [1] of the Securities Exchange Act of 1934 (the ''Act'') [2] and Rule 19b–4 thereunder,[3] notice is hereby given that on April 5, 2019, NYSE American LLC (''NYSE American'' or the ''Exchange'') filed with the Securities and Exchange Commission (the ''Commission'') the proposed rule change as described in Items I and II below, which Items have been prepared by the self-regulatory organization. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to extend the pilot related to Rule 7.12E, Trading Halts Due to Extraordinary Market Volatility, to the close of business on October 18, 2019. The proposed rule change is available on the Exchange's website at *www.nyse.com,* at the principal office of the Exchange, and at the Commission's Public Reference Room.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the self-regulatory organization included

[1] 15 U.S.C. 78s(b)(1).

[2] 15 U.S.C. 78a.

[3] 17 CFR 240.19b–4.

statements concerning the purpose of, and basis for, the proposed rule change and discussed any comments it received on the proposed rule change. The text of those statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant parts of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

Rule 7.12E provides a methodology for determining when to halt trading in all stocks due to extraordinary market volatility, *i.e.,* market-wide circuit breakers. The market-wide circuit breaker mechanism under Rule 7.12E was approved by the Commission to operate on a pilot basis, the term of which was to coincide with the pilot period for the Plan to Address Extraordinary Market Volatility Pursuant to Rule 608 of Regulation NMS (the '' LULD Plan''),[4] including any extensions to the pilot period for the LULD Plan.[5] The Commission published an amendment to the LULD Plan for it to operate on a permanent, rather than pilot, basis.[6]

The Exchange proposes to amend Rule 7.12E to untie the pilot's effectiveness from that of the LULD Plan and to extend the pilot's effectiveness to the close of business on October 18, 2019. The Exchange does not propose any additional changes to Rule 7.12E.

Market-wide circuit breakers under Rule 7.12E provide an important, automatic mechanism that is invoked to promote stability and investor confidence during a period of significant stress when securities markets experience extreme broad-based declines. All U.S. equity exchanges have rules relating to market-wide circuit breakers, which are designed to slow the effects of extreme price movement through coordinated trading halts across securities markets when severe price declines reach levels that may exhaust market liquidity. Market-wide circuit breakers provide for trading halts in all equities and options markets during a severe market decline as measured by a single-day decline in the S&P 500 Index.

Pursuant to Rule 7.12E, a market-wide trading halt will be triggered if the S&P 500 Index declines in price by specified percentages from the prior day's closing price of that index. Currently, the triggers are set at three circuit breaker thresholds: 7% (Level 1), 13% (Level 2) and 20% (Level 3). A market decline that triggers a Level 1 or Level 2 circuit breaker after 9:30 a.m. ET and before 3:25 p.m. ET would halt market-wide trading for 15 minutes, while a similar market decline at or after 3:25 p.m. ET would not halt market-wide trading. A market decline that triggers a Level 3 circuit breaker, at any time during the trading day, would halt market-wide trading for the remainder of the trading day.

The Exchange intends to file a separate proposed rule change with the Commission to operate Rule 7.12E on a permanent, rather than pilot, basis. Extending the effectiveness of Rule 7.12E to the close of business on October 18, 2019 should provide the Commission adequate time to consider whether to approve the Exchange's separate proposal to operate the market-wide circuit breaker mechanism under Rule 7.12E on a permanent basis.

2. Statutory Basis

The Exchange believes that its proposal is consistent with the requirements of Sections 6(b)[7] and 6(b)(5) of the Act,[8] in particular, because it would promote just and equitable principles of trade, remove impediments to, and perfect the mechanism of, a free and open market and a national market system. The Exchange also believes that the proposed rule change promotes just and equitable principles of trade in that it promotes transparency and uniformity across markets concerning when and how to halt trading in all stocks as a result of extraordinary market volatility. Extending the market-wide circuit breaker pilot under Rule 7.12E an additional six months would ensure the continued, uninterrupted operation of a consistent mechanism to halt trading across the U.S. markets while the Commission considers whether to approve the pilot on a permanent basis. The proposed rule change would thus promote fair and orderly markets and the protection of investors and the public interest. Based on the foregoing, the Exchange believes the benefits to market participants from the market-wide circuit breaker mechanism under Rule 7.12E should continue on a pilot basis while the Commission considers whether to permanently approve Rule 7.12E.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change implicates any competitive issues because the proposal would ensure the continued, uninterrupted operation of a consistent mechanism to halt trading across the U.S. markets while the Commission considers whether to permanently approve the market-wide circuit breaker mechanism under Rule 7.12E. Further, the Exchange understands that FINRA and other national securities exchanges will file similar proposals to extend their rules regarding the market-wide circuit breaker pilot so that the market-wide circuit breaker mechanism may continue uninterrupted while the Commission considers whether to approve its operation on a permanent basis.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

No written comments were solicited or received with respect to the proposed rule change.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Because the foregoing proposed rule change does not: (i) Significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative for 30 days from the date on which it was filed, or such shorter time as the Commission may designate, it has become effective pursuant to Section 19(b)(3)(A) of the Act[9] and Rule 19b–4(f)(6) thereunder.[10]

A proposed rule change filed under Rule 19b–4(f)(6)[11] normally does not become operative for 30 days after the date of filing. However, pursuant to Rule 19b–4(f)(6)(iii),[12] the Commission may designate a shorter time if such action is consistent with the protection of investors and the public interest. The Exchange has asked the Commission to waive the 30-day operative delay so that the proposal may become operative upon filing. Extending the pilot for an

[4] *See* Securities Exchange Act Release No. 67091 (May 31, 2012), 77 FR 33498 (June 6, 2012) (the ''Limit Up-Limit Down Release'').

[5] *See* Securities Exchange Act Release Nos. 67090 (May 31, 2012), 77 FR 33531 (June 6, 2012) (SR–NYSEAmex–2011–73) (Approval Order); and 68787 (January 31, 2013), 78 FR 8615 (February 6, 2013) (SR–NYSEMKT–2013–08) (Notice of Filing and Immediate Effectiveness of Proposed Rule Change Delaying the Operative Date of Rule 7.12E to April 8, 2013).

[6] *See* Securities Exchange Act Release Nos. 84843 (December 18, 2018), 83 FR 66464 (December 26, 2018) (Amendment No. 18 Proposing Release).

[7] 15 U.S.C. 78f(b).

[8] 15 U.S.C. 78f(b)(5).

[9] 15 U.S.C. 78s(b)(3)(A).

[10] 17 CFR 240.19b–4(f)(6).

[11] *Id.*

[12] 17 CFR 240.19b–4(f)(g)(iii).

additional six months will allow the uninterrupted operation of the existing pilot to halt trading across the U.S. markets while the Commission considers whether to approve the pilot on a permanent basis. The extension simply maintains the status quo. Therefore, the Commission believes that waiving the 30-day operative delay is consistent with the protection of investors and the public interest. The Commission hereby designates the proposed rule change to be operative upon filing.[13]

At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov.* Please include File Number SR–NYSEAMER–2019–14 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.

All submissions should refer to File Number SR–NYSEAMER–2019–14. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549 on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–NYSEAMER–2019–14, and should be submitted on or before May 6, 2019.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[14]

Jill M. Peterson,

Assistant Secretary.

[FR Doc. 2019–07373 Filed 4–12–19; 8:45 am]

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[13] For purposes only of waiving the 30-day operative delay, the Commission has also considered the proposed rule's impact on efficiency, competition, and capital formation. *See* 15 U.S.C. 78c(f).

[14] 17 CFR 200.30–3(a)(12).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–85578; File No. SR–NASDAQ–2019–027]

Self-Regulatory Organizations; The Nasdaq Stock Market LLC; Notice of Filing and Immediate Effectiveness of Proposed Rule Change To Extend the Pilot Related to Rule 4121, Trading Halts Due to Extraordinary Market Volatility

April 9, 2019.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (''Act''),[1] and Rule 19b–4 thereunder,[2] notice is hereby given that on April 8, 2019, The Nasdaq Stock Market LLC (''Nasdaq'' or ''Exchange'') filed with the Securities and Exchange Commission (''SEC'' or ''Commission'') the proposed rule change as described in Items I and II below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to extend the pilot related to Rule 4121, Trading Halts Due to Extraordinary Market Volatility, to the close of business on October 18, 2019.

The text of the proposed rule change is available on the Exchange's website at *http://nasdaq.cchwallstreet.com,* at the principal office of the Exchange, and at the Commission's Public Reference Room.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

Rule 4121 provides a methodology for determining when to halt trading in all stocks due to extraordinary market volatility, *i.e.,* market-wide circuit breakers. The market-wide circuit breaker mechanism under Rule 4121 was approved by the Commission to operate on a pilot basis, the term of which was to coincide with the pilot period for the Plan to Address Extraordinary Market Volatility Pursuant to Rule 608 of Regulation NMS (the ''LULD Plan''),[3] including any extensions to the pilot period for the LULD Plan.[4] The Commission published an amendment to the LULD

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] *See* Securities Exchange Act Release No. 67091 (May 31, 2012), 77 FR 33498 (June 6, 2012) (the ''Limit Up-Limit Down Release'').

[4] *See* Securities Exchange Act Release Nos. 67090 (May 31, 2012), 77 FR 33531 (June 6, 2012) (SR–NASDAQ–2011–131) (Approval Order); and 68786 (January 31, 2013), 78 FR 8666 (February 6, 2013) (SR–NASDAQ–2013–021) (Notice of Filing and Immediate Effectiveness of Proposed Rule Change to Delay the Operative Date of a Rule Change to Nasdaq Rule 4121).

Plan for it to operate on a permanent, rather than pilot, basis.[5]

The Exchange proposes to amend Rule 4121 to untie the pilot's effectiveness from that of the LULD Plan and to extend the pilot's effectiveness to the close of business on October 18, 2019. The Exchange does not propose any additional changes to Rule 4121.

Market-wide circuit breakers under Rule 4121 provide an important, automatic mechanism that is invoked to promote stability and investor confidence during a period of significant stress when securities markets experience extreme broad-based declines. All U.S. equity exchanges have rules relating to market-wide circuit breakers, which are designed to slow the effects of extreme price movement through coordinated trading halts across securities markets when severe price declines reach levels that may exhaust market liquidity. Market-wide circuit breakers provide for trading halts in all equities and options markets during a severe market decline as measured by a single-day decline in the S&P 500 Index.

Pursuant to Rule 4121, a market-wide trading halt will be triggered if the S&P 500 Index declines in price by specified percentages from the prior day's closing price of that index. Currently, the triggers are set at three circuit breaker thresholds: 7% (Level 1), 13% (Level 2) and 20% (Level 3). A market decline that triggers a Level 1 or Level 2 circuit breaker after 9:30 a.m. ET and before 3:25 p.m. ET would halt market-wide trading for 15 minutes, while a similar market decline at or after 3:25 p.m. ET would not halt market-wide trading. A market decline that triggers a Level 3 circuit breaker, at any time during the trading day, would halt market-wide trading for the remainder of the trading day.

The Exchange intends to file a separate proposed rule change to operate Rule 4121 on a permanent, rather than pilot, basis. Extending the effectiveness of Rule 4121 to the close of business on October 18, 2019 should provide the Commission adequate time to consider whether to approve the Exchange's separate proposal to operate the market-wide circuit breaker mechanism under Rule 4121 on a permanent basis.

2. Statutory Basis

The Exchange believes that its proposal is consistent with Section 6(b) of the Act,[6] in general, and furthers the objectives of Section 6(b)(5) of the Act,[7] in particular, in that it is designed to promote just and equitable principles of trade, to remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general to protect investors and the public interest. The Exchange also believes that the proposed rule change promotes just and equitable principles of trade in that it promotes transparency and uniformity across markets concerning when and how to halt trading in all stocks as a result of extraordinary market volatility. Extending the market-wide circuit breaker pilot under Rule 4121 an additional six months would ensure the continued, uninterrupted operation of a consistent mechanism to halt trading across the U.S. markets while the Commission considers whether to approve the pilot on a permanent basis. The proposed rule change would thus promote fair and orderly markets and the protection of investors and the public interest. Based on the foregoing, the Exchange believes the benefits to market participants from the market-wide circuit breaker mechanism under Rule 4121 should continue on a pilot basis while the Commission considers whether to permanently approve Rule 4121.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change implicates any competitive issues because the proposal would ensure the continued, uninterrupted operation of a consistent mechanism to halt trading across the U.S. markets while the Commission considers whether to permanently approve the market-wide circuit breaker mechanism under Rule 4121. Further, the Exchange understands that FINRA and other national securities exchanges will file proposals to extend their rules regarding the market-wide circuit breaker pilot so that the market-wide circuit breaker mechanism may continue uninterrupted while the Commission considers whether to approve its operation on a permanent basis.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

No written comments were either solicited or received.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Because the foregoing proposed rule change does not: (i) Significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative for 30 days from the date on which it was filed, or such shorter time as the Commission may designate, it has become effective pursuant to Section 19(b)(3)(A) of the Act[8] and Rule 19b–4(f)(6) thereunder.[9]

A proposed rule change filed under Rule 19b–4(f)(6)[10] normally does not become operative for 30 days after the date of filing. However, pursuant to Rule 19b–4(f)(6)(iii),[11] the Commission may designate a shorter time if such action is consistent with the protection of investors and the public interest. The Exchange has asked the Commission to waive the 30-day operative delay so that the proposal may become operative upon filing. Extending the pilot for an additional six months will allow the uninterrupted operation of the existing pilot to halt trading across the U.S. markets while the Commission considers whether to approve the pilot on a permanent basis. The extension simply maintains the status quo. Therefore, the Commission believes that waiving the 30-day operative delay is consistent with the protection of investors and the public interest. The Commission hereby designates the proposed rule change to be operative upon filing.[12]

At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act.

[5] *See* Securities Exchange Act Release Nos. 84843 (December 18, 2018), 83 FR 66464 (December 26, 2018) (Amendment No. 18 Proposing Release).

[6] 15 U.S.C. 78f(b).

[7] 15 U.S.C. 78f(b)(5).

[8] 15 U.S.C. 78s(b)(3)(A).

[9] 17 CFR 240.19b–4(f)(6).

[10] *Id.*

[11] 17 CFR 240.19b–4(f)(g)(iii).

[12] For purposes only of waiving the 30-day operative delay, the Commission has also considered the proposed rule's impact on efficiency, competition, and capital formation. *See* 15 U.S.C. 78c(f).

Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov.* Please include File Number SR–NASDAQ–2019–027 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.

All submissions should refer to File Number SR–NASDAQ–2019–027. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549 on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–NASDAQ–2019–027, and should be submitted on or before May 6, 2019.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[13]

Jill M. Peterson,

Assistant Secretary.

[FR Doc. 2019–07362 Filed 4–12–19; 8:45 am]

BILLING CODE 8011–01–P

[13] 17 CFR 200.30–3(a)(12).

SMALL BUSINESS ADMINISTRATION

Reporting and Recordkeeping Requirements Under OMB Review

AGENCY: Small Business Administration.

ACTION: 30-Day notice.

SUMMARY: The Small Business Administration (SBA) is publishing this notice to comply with requirements of the Paperwork Reduction Act (PRA) requires agencies to submit proposed reporting and recordkeeping requirements to OMB for review and approval, and to publish a notice in the **Federal Register** notifying the public that the agency has made such a submission. This notice also allows an additional 30 days for public comments.

DATES: Submit comments on or before May 15, 2019.

ADDRESSES: Comments should refer to the information collection by name and/or OMB Control Number and should be sent to: *Agency Clearance Officer,* Curtis Rich, Small Business Administration, 409 3rd Street SW, 5th Floor, Washington, DC 20416; and *SBA Desk Officer,* Office of Information and Regulatory Affairs, Office of Management and Budget, New Executive Office Building, Washington, DC 20503.

FOR FURTHER INFORMATION CONTACT: Curtis Rich, Agency Clearance Officer, (202) 205–7030 *curtis.rich@sba.gov*

Copies: A copy of the Form OMB 83–1, supporting statement, and other documents submitted to OMB for review may be obtained from the Agency Clearance Officer.

SUPPLEMENTARY INFORMATION: This Information collection is needed to ensure Microloan Program activity meets the statutory goals of assisting mandated target market. The information is used by the reporting participants and the SBA to assist with portfolio management, risk management, loan servicing oversight and compliance, data management and understanding of short and long term trends and development of outcome measures.

Solicitation of Public Comments:

SBA is requesting comments on (a) Whether the collection of information is necessary for the agency to properly perform its functions; (b) whether the burden estimates are accurate; (c) whether there are ways to minimize the burden, including through the use of automated techniques or other forms of information technology; and (d) whether there are ways to enhance the quality, utility, and clarity of the information.

Title: Microloan Program Electronic Reporting System (MPERS).

Description of Respondents: SBA reporting participants in the Microloan Program.

Form Number: N/A.

Estimated Annual Responses: 6,780.

Estimated Annual Hour Burden: 2,930.

Curtis Rich,

Management Analyst.

[FR Doc. 2019–07397 Filed 4–12–19; 8:45 am]

BILLING CODE 8025–01–P

SMALL BUSINESS ADMINISTRATION

[Disaster Declaration #15927 and #15928; Nebraska Disaster Number NE–00074]

Presidential Declaration of a Major Disaster for Public Assistance Only for the State of Nebraska

AGENCY: U.S. Small Business Administration.

ACTION: Notice.

SUMMARY: This is a Notice of the Presidential declaration of a major disaster for Public Assistance Only for the State of Nebraska (FEMA–4420–DR), dated 04/05/2019.

Incident: Severe Winter Storm, Straight-line Winds, and Flooding.

Incident Period: 03/09/2019 and continuing.

DATES: Issued on 04/05/2019.

Physical Loan Application Deadline Date: 06/04/2019.

Economic Injury (EIDL) Loan Application Deadline Date: 01/06/2020.

ADDRESSES: Submit completed loan applications to: U.S. Small Business Administration, Processing and Disbursement Center, 14925 Kingsport Road, Fort Worth, TX 76155.

FOR FURTHER INFORMATION CONTACT: A. Escobar, Office of Disaster Assistance, U.S. Small Business Administration, 409 3rd Street SW, Suite 6050, Washington, DC 20416, (202) 205–6734.

SUPPLEMENTARY INFORMATION: Notice is hereby given that as a result of the President's major disaster declaration on 04/05/2019, Private Non-Profit organizations that provide essential services of a governmental nature may file disaster loan applications at the address listed above or other locally announced locations.

The following areas have been determined to be adversely affected by the disaster:

Primary Counties:

Adams, Antelope, Blaine, Boone, Box Butte, Boyd, Buffalo, Burt, Butler, Cass, Cedar, Colfax, Cuming,

Custer, Dakota, Dixon, Dodge, Douglas, Fillmore, Frontier, Furnas, Gage, Garfield, Gosper, Greeley, Hall, Holt, Howard, Jefferson, Johnson, Knox, Lancaster, Logan, Loup, Madison, Morrill, Nance, Nemaha, Otoe, Pawnee, Pierce, Platte, Richardson, Saline, Sarpy, Sherman, Valley, Washington, Wayne, Wheeler.

The Interest Rates are:

	Percent
For Physical Damage:	
Non-Profit Organizations with Credit Available Elsewhere ...	2.750
Non-Profit Organizations without Credit Available Elsewhere	2.750
For Economic Injury:	
Non-Profit Organizations without Credit Available Elsewhere	2.750

The number assigned to this disaster for physical damage is 159276 and for economic injury is 159280.

(Catalog of Federal Domestic Assistance Number 59008)

James Rivera,

Associate Administrator for Disaster Assistance.

[FR Doc. 2019–07358 Filed 4–12–19; 8:45 am]

BILLING CODE 8025–01–P

SMALL BUSINESS ADMINISTRATION

[Disaster Declaration #15933 and #15934; Soboba Band of Luiseno Indians Disaster Number CA–00305]

Presidential Declaration of a Major Disaster for Public Assistance Only for the Soboba Band of Luiseno Indians

AGENCY: U.S. Small Business Administration.

ACTION: Notice.

SUMMARY: This is a Notice of the Presidential declaration of a major disaster for Public Assistance Only for the Soboba Band of Luiseno Indians (FEMA–4425–DR), dated 04/08/2019.

Incident: Severe Storms and Flooding.

Incident Period: 02/14/2019 through 02/15/2019.

DATES: Issued on 04/08/2019.

Physical Loan Application Deadline Date: 06/07/2019.

Economic Injury (EIDL) Loan Application Deadline Date: 01/08/2020.

ADDRESSES: Submit completed loan applications to: U.S. Small Business Administration, Processing and Disbursement Center, 14925 Kingsport Road, Fort Worth, TX 76155.

FOR FURTHER INFORMATION CONTACT: A. Escobar, Office of Disaster Assistance, U.S. Small Business Administration, 409 3rd Street SW, Suite 6050, Washington, DC 20416, (202) 205–6734.

SUPPLEMENTARY INFORMATION: Notice is hereby given that as a result of the President's major disaster declaration on 04/08/2019, Private Non-Profit organizations that provide essential services of a governmental nature may file disaster loan applications at the address listed above or other locally announced locations.

The following areas have been determined to be adversely affected by the disaster:

Primary Area: Soboba Band of Luiseno Indians

The Interest Rates are:

	Percent
For Physical Damage:	
Non-Profit Organizations with Credit Available Elsewhere ...	2.750
Non-Profit Organizations without Credit Available Elsewhere	2.750
For Economic Injury:	
Non-Profit Organizations without Credit Available Elsewhere	2.750

The number assigned to this disaster for physical damage is 159336 and for economic injury is 159340.

(Catalog of Federal Domestic Assistance Number 59008)

James Rivera,

Associate Administrator for Disaster Assistance.

[FR Doc. 2019–07392 Filed 4–12–19; 8:45 am]

BILLING CODE 8025–01–P

SMALL BUSINESS ADMINISTRATION

[Disaster Declaration #15929 and #15930; Iowa Disaster Number IA–00087]

Presidential Declaration of a Major Disaster for Public Assistance Only for the State of Iowa

AGENCY: U.S. Small Business Administration.

ACTION: Notice.

SUMMARY: This is a Notice of the Presidential declaration of a major disaster for Public Assistance Only for the State of Iowa (FEMA–4421–DR), dated 04/05/2019.

Incident: Severe Storms and Flooding.

Incident Period: 03/12/2019 and continuing.

DATES: Issued on 04/05/2019.

Physical Loan Application Deadline Date: 06/04/2019.

Economic Injury (EIDL) Loan Application Deadline Date: 01/06/2020.

ADDRESSES: Submit completed loan applications to: U.S. Small Business Administration, Processing and Disbursement Center, 14925 Kingsport Road, Fort Worth, TX 76155.

FOR FURTHER INFORMATION CONTACT: A. Escobar, Office of Disaster Assistance, U.S. Small Business Administration, 409 3rd Street SW, Suite 6050, Washington, DC 20416, (202) 205–6734.

SUPPLEMENTARY INFORMATION: Notice is hereby given that as a result of the President's major disaster declaration on 04/05/2019, Private Non-Profit organizations that provide essential services of a governmental nature may file disaster loan applications at the address listed above or other locally announced locations.

The following areas have been determined to be adversely affected by the disaster:

Primary Counties: Buena Vista, Cherokee, Crawford, Dallas, Franklin, Fremont, Greene, Harrison, Ida, Jasper, Lyon, Marshall, Mills, Monona, Polk, Pottawattamie, Shelby, Sioux, Winneshiek, Wright.

The Interest Rates are:

	Percent
For Physical Damage:	
Non-Profit Organizations with Credit Available Elsewhere ...	2.750
Non-Profit Organizations without Credit Available Elsewhere	2.750
For Economic Injury:	
Non-Profit Organizations without Credit Available Elsewhere	2.750

The number assigned to this disaster for physical damage is 159296 and for economic injury is 159300.

(Catalog of Federal Domestic Assistance Number 59008)

James Rivera,

Associate Administrator for Disaster Assistance.

[FR Doc. 2019–07356 Filed 4–12–19; 8:45 am]

BILLING CODE 8025–01–P

SMALL BUSINESS ADMINISTRATION

[Disaster Declaration #15931 and #15932; OHIO Disaster Number OH–00056]

Presidential Declaration of a Major Disaster for Public Assistance Only for the State of Ohio

AGENCY: U.S. Small Business Administration.

ACTION: Notice.

SUMMARY: This is a Notice of the Presidential declaration of a major disaster for Public Assistance Only for the State of Ohio (FEMA–4424–DR), dated 04/08/2019.

Incident: Severe Storms, Flooding, and Landslides.

Incident Period: 02/05/2019 through 02/13/2019.

DATES: Issued on 04/08/2019.

Physical Loan Application Deadline Date: 06/07/2019.

Economic Injury (EIDL) Loan Application Deadline Date: 01/08/2020.

ADDRESSES: Submit completed loan applications to: U.S. Small Business Administration, Processing and Disbursement Center, 14925 Kingsport Road, Fort Worth, TX 76155.

FOR FURTHER INFORMATION CONTACT: A. Escobar, Office of Disaster Assistance, U.S. Small Business Administration, 409 3rd Street SW, Suite 6050, Washington, DC 20416, (202) 205–6734.

SUPPLEMENTARY INFORMATION: Notice is hereby given that as a result of the President's major disaster declaration on 04/08/2019, Private Non-Profit organizations that provide essential services of a governmental nature may file disaster loan applications at the address listed above or other locally announced locations.

The following areas have been determined to be adversely affected by the disaster:

Primary Counties: Adams, Athens, Brown, Gallia, Guernsey, Hocking, Jackson, Jefferson, Lawrence, Meigs, Monroe, Morgan, Muskingum, Noble, Perry, Pike, Ross, Scioto, Vinton, Washington.

The Interest Rates are:

	Percent
For Physical Damage:	
Non-Profit Organizations With Credit Available Elsewhere ...	2.750
Non-Profit Organizations Without Credit Available Elsewhere	2.750
For Economic Injury:	
Non-Profit Organizations Without Credit Available Elsewhere	2.750

The number assigned to this disaster for physical damage is 159316 and for economic injury is 159320.

(Catalog of Federal Domestic Assistance Number 59008)

James Rivera,

Associate Administrator for Disaster Assistance.

[FR Doc. 2019–07391 Filed 4–12–19; 8:45 am]

BILLING CODE 8025–01–P

SOCIAL SECURITY ADMINISTRATION

[Docket No. SSA–2018–0056]

Privacy Act of 1974; System of Records

AGENCY: Office of Security and Emergency Preparedness, Deputy Commissioner for Budget, Finance, and Management, Social Security Administration (SSA).

ACTION: Notice of a new system of records.

SUMMARY: In accordance with the Privacy Act, we are issuing public notice of our intent to establish a new system of records entitled, Mass Emergency Notification System (MENS) (60–0386), hereinafter called the MENS Record System. This notice publishes details of the new system as set forth under the caption, **SUPPLEMENTARY INFORMATION**.

DATES: The system of records notice (SORN) is applicable upon its publication in today's **Federal Register**, with the exception of the routine uses, which are effective May 15, 2019. We invite public comment on the routine uses or other aspects of this SORN. In accordance with 5 U.S.C. 552a(e)(4) and (e)(11), the public is given a 30-day period in which to submit comments. Therefore, please submit any comments by May 15, 2019.

ADDRESSES: The public, Office of Management and Budget (OMB), and Congress may comment on this publication by writing to the Executive Director, Office of Privacy and Disclosure, Office of the General Counsel, SSA, Room G–401 West High Rise, 6401 Security Boulevard, Baltimore, Maryland 21235–6401, or through the Federal e-Rulemaking Portal at *http://www.regulations.gov,* please reference docket number SSA–2018–0056. All comments we receive will be available for public inspection at the above address and we will post them to *http://www.regulations.gov.*

FOR FURTHER INFORMATION CONTACT: Anthony Tookes, Government Information Specialist, Privacy Implementation Division, Office of Privacy and Disclosure, Office of the General Counsel, SSA, Room G–401 West High Rise, 6401 Security Boulevard, Baltimore, Maryland 21235–6401, telephone: (410) 966–0097, email: *Anthony.Tookes@ssa.gov.*

SUPPLEMENTARY INFORMATION: We are establishing the MENS Record System to cover information we collect about our employees, contractors, and others who may be affected by emergency situations at an SSA site or property and may be notified about such situations through MENS. We are transforming and modernizing agency emergency communications. The MENS Record system will enable us to quickly notify individuals of any emergency or urgent situation that occurs in an area that the affected individual works or frequents or at another site or property for which the individual has an interest in receiving notifications from the system.

In accordance with 5 U.S.C. 552a(r), we have provided a report to OMB and Congress on this new system of records.

Mary Zimmerman,

Acting Executive Director, Office of Privacy and Disclosure, Office of the General Counsel.

SYSTEM NAME AND NUMBER

Mass Emergency Notification System (MENS), 60–0383

SECURITY CLASSIFICATION:

Unclassified.

SYSTEM LOCATION:

Social Security Administration, Deputy Commissioner for the Office of Budget, Finance, and Management, Office of Security and Emergency Preparedness, 6401 Security Boulevard, Baltimore, MD 21235.

SYSTEM MANAGER(S):

Social Security Administration, Deputy Commissioner for the Office of Budget, Finance, and Management, Office of Security and Emergency Preparedness, 6401 Security Boulevard, Baltimore, MD 21235, *SSA.MENS@ssa.gov.*

AUTHORITY FOR MAINTENANCE OF THE SYSTEM:

Homeland Security Presidential Directive 5; Occupational Safety and Health Administration Act of 1970; Title 41 CFR Sections 101–20.103–4 and 102–74.230.

PURPOSE(S) OF THE SYSTEM:

We will use the information in this system to collect and store personal contact information and to notify SSA employees, contractors, and any others who may be affected by emergency situations at an SSA site or property.

CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:

Current SSA employees, contractors, and any others who may be affected by emergency or urgent situations at an SSA site or property (*e.g.,* non-employee parents of children at an SSA child care facility).

CATEGORIES OF RECORDS IN THE SYSTEM:

This system maintains contact information and other information necessary to provide notice through the

MENS Record System, such as the individual's name, personal telephone number, personal email address, official business phone number, official business email address, and official business location.

RECORD SOURCE CATEGORIES:

We obtain information in this system from individuals who voluntarily register for MENS. In addition, we obtain information from the Personal Identity Verification Card Management System and the SSA Human Resources Operational Datastore database.

ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:

We will disclose records pursuant to the following routine uses; however, we will not disclose any information defined as ''return or return information'' under 26 U.S.C. 6103 of the Internal Revenue Code (IRC), unless authorized by statute, the Internal Revenue Service (IRS), or IRS regulations.

1. To a congressional office in response to an inquiry from that office made on behalf of, and at the request of, the subject of the record or third party acting on the subject's behalf.

2. To the Office of the President in response to an inquiry from that office made on behalf of, and at the request of, the subject of the record or a third party acting on the subject's behalf.

3. To the National Archives and Records Administration (NARA) under 44 U.S.C. 2904 and 2906.

4. To appropriate agencies, entities, and persons when:

(a) SSA suspects or has confirmed that there has been a breach of the system of records;

(b) SSA has determined that as a result of the suspected or confirmed breach, there is a risk of harm to individuals, SSA (including its information systems, programs, and operations), the Federal Government, or national security; and

(c) the disclosure made to such agencies, entities, and persons is reasonably necessary to assist in connections with SSA's efforts to respond to the suspected or confirmed breach or to prevent, minimize, or remedy such harm.

5. To another Federal agency or Federal entity, when SSA determines that information from this system of records is reasonably necessary to assist the recipient agency or entity in:

(a) responding to a suspected or confirmed breach; or

(b) preventing, minimizing, or remedying the risk of harm to individuals, the recipient agency or entity (including its information systems, programs, and operations), the Federal Government, or national security, resulting from a suspected or confirmed breach.

6. To disclose information to officials of labor organizations recognized under 5 U.S.C. Chapter 71 when relevant and necessary to their duties of exclusive representation concerning personnel policies, practices, and matters affecting working conditions.

7. To the Department of Justice (DOJ), a court or other tribunal, or another party before such court or tribunal, when:

(a) SSA, or any component thereof; or

(b) any SSA employee in his/her official capacity; or

(c) any SSA employee in his/her individual capacity where DOJ (or SSA, where it is authorized to do so) has agreed to represent the employee; or

(d) the United States or any agency thereof where SSA determines the litigation is likely to affect SSA or any of its components, is a party to the litigation or has an interest in such litigation, and SSA determines that the use of such records by DOJ, a court or other tribunal, or another party before the tribunal is relevant and necessary to the litigation, provided, however, that in each case, the agency determines that disclosure of the records to DOJ, court or other tribunal, or another party is a use of the information contained in the records that is compatible with the purpose for which the records were collected.

8. To Federal, State and local law enforcement agencies and private security contractors, as appropriate, information necessary:

(a) to enable them to protect the safety of SSA employees and customers, the security of the SSA workplace, the operation of SSA facilities, or

(b) to assist investigations or prosecutions with respect to activities that affect such safety and security or activities that disrupt the operations of SSA facilities.

9. To the Equal Employment Opportunity Commission (EEOC) when requested in connection with investigations into alleged or possible discriminatory practices in the Federal sector, examination of Federal affirmative employment programs, compliance by Federal agencies with the Uniform Guidelines on Employee Selection Procedures, or other functions vested in the Commission.

10. To the Office of Personnel Management (OPM), the Merit Systems Protection Board, or the Office of Special Counsel in connection with appeals, special studies, of the civil service and other merit systems, review of rules and regulations, investigations of alleged or possible prohibited practices, and other such functions promulgated in 5 U.S.C. Chapter 12, or as may be required by law.

11. To contractors and other Federal agencies, as necessary, for the purpose of assisting SSA in the efficient administration of its programs. We disclose information under this routine use only in situations in which SSA may enter into a contractual or similar agreement with a third party to assist in accomplishing an agency function relating to this system of records.

12. To student volunteers, individuals working under a personal services contract, and other workers who technically do not have the status of Federal employees when they are performing work for SSA, as authorized by law, and they need access to personally identifiable information (PII) in SSA records in order to perform their assigned agency functions.

POLICIES AND PRACTICES FOR STORAGE OF RECORDS:

We maintain records in this system in paper and electronic form.

POLICIES AND PRACTICES FOR RETRIEVAL OF RECORDS:

We will retrieve records by the individual's name and SSA-provided email address.

POLICIES AND PRACTICES FOR RETENTION AND DISPOSAL OF RECORDS:

We retain records in accordance with NARA approved records schedules. We maintain these records under General Records Schedule (GRS) 5.3 Continuity and Emergency Planning Records, Item 020—Employee Emergency Contact Information. The emergency contact information records used to account for and maintain communication with personnel during emergencies, office dismissal, and closure situations. Records include name and emergency contact information such as phone numbers and addresses. Records may also include other information on employees such as responsibilities assigned to the individual during an emergency situation. The disposition instruction requires destoying when superseded or obsolete, or upon separation or transfer of employee. The disposition authority is DAA–GRS–2016–0004–0002.

ADMINISTRATIVE, TECHNICAL, AND PHYSICAL SAFEGUARDS:

We retain electronic and paper files with personal identifiers in secure storage areas accessible only by our

authorized employees and contractors who have a need for the information when performing their official duties. Security measures include, but are not limited to, the use of codes and profiles, personal identification number and password, and personal identification verification cards. We keep paper records in locked cabinets within secure areas, with access limited to only those employees who have an official need for access in order to perform their duties.

We annually provide our employees and contractors with appropriate security awareness training that includes reminders about the need to protect PII and the criminal penalties that apply to unauthorized access to, or disclosure of, PII (5 U.S.C. 552a(i)(1)). Furthermore, employees and contractors with access to databases maintaining PII must sign a sanctions document annually, acknowledging their accountability for inappropriately accessing or disclosing such information.

RECORD ACCESS PROCEDURES:

Individuals may submit requests for information about whether this system contains a record about them by submitting a written request to the system manager at the above address, which includes their name, Social Security number (SSN), or other information that may be in this system of records that will identify them. Individuals requesting notification of, or access to, a record by mail must include: (1) A notarized statement to us to verify their identity; or (2) must certify in the request that they are the individual they claim to be and that they understand that the knowing and willful request for, or acquisition of, a record pertaining to another individual under false pretenses is a criminal offense.

Individuals requesting notification of, or access to, records in person must provide their name, SSN, or other information that may be in this system of records that will identify them, as well as provide an identity document, preferably with a photograph, such as a driver's license. Individuals lacking identification documents sufficient to establish their identity must certify in writing that they are the individual they claim to be and that they understand that the knowing and willful request for, or acquisition of, a record pertaining to another individual under false pretenses is a criminal offense.

These procedures are in accordance with our regulations at 20 CFR 401.40 and 401.45.

CONTESTING RECORD PROCEDURES:

Same as record access procedures. Individuals should also reasonably identify the record, specify the information they are contesting, and state the corrective action sought and the reasons for the correction with supporting justification showing how the record is incomplete, untimely, inaccurate, or irrelevant. These procedures are in accordance with our regulations at 20 CFR 401.65(a).

NOTIFICATION PROCEDURES:

Same as record access procedures. These procedures are in accordance with our regulations at 20 CFR 401.40 and 401.45.

EXEMPTIONS PROMULGATED FOR THE SYSTEM:

None.

HISTORY:

None.

[FR Doc. 2019–07455 Filed 4–12–19; 8:45 am]

BILLING CODE 4191–02–P

DEPARTMENT OF STATE

[Public Notice: 10733]

Overseas Schools Advisory Council

AGENCY: Department of State.

ACTION: Notice of renewal of an advisory committee charter.

Renewal of Advisory Committee: The Secretary of State announces the renewal of the charter of the Overseas Schools Advisory Council in accordance with the Federal Advisory Committee Act. The charter was renewed on April 1, 2019.

Purpose: The main objectives of the Council are:

(a) To advise the Department of State regarding matters of policy and funding for the overseas schools.

(b) To help the overseas schools become showcases for excellence in education.

(c) To help make service abroad more attractive to American citizens who have school-age children, both in the business community and in Government.

(d) To identify methods to mitigate risks to American private sector interests worldwide.

FOR FURTHER INFORMATION CONTACT: Thomas Shearer, Director of the Office of Overseas Schools, and Executive Secretary for the Committee at (202) 261–8201, email: *shearertp@state.gov.*

Mary E. Russman,

Regional Education Officer, Office of Overseas Schools, Department of State.

[FR Doc. 2019–07433 Filed 4–12–19; 8:45 am]

BILLING CODE 4710–24–P

DEPARTMENT OF STATE

[Public Notice: 10736]

Notice of Charter Renewal for the President's Emergency Plan for AIDS Relief (PEPFAR) Scientific Advisory Board

The official designation of this advisory committee is The President's Emergency Plan for AIDS Relief (PEPFAR) Scientific Advisory Board, hereinafter referred to as ''the Board.'' The Board is established under the general authority of the Secretary of State and the Department of State (''the Department'') as set forth in Title 22 of the United States Code, in particular Section 2656 of that Title, and consistent with the Federal Advisory Committee Act, as amended (5 U.S.C. Appendix). The Board serves the U.S. Global AIDS Coordinator solely in an advisory capacity concerning scientific, implementation, and policy issues related to the global response to HIV/AIDS.

In accordance with Public Law 92–463, Section 14, it has been formally determined to be in the public interest to continue the Charter of the PEPFAR Scientific Advisory Board for another two years. The Charter renewal was approved and filed on March 14, 2019.

For further information about the Board, please contact Dr. Sara Klucking, Senior Adviser for Research and Science and Designated Federal Officer, Office of the U.S. Global AIDS Coordinator and Health Diplomacy at *KluckingSR@state.gov.*

Sara R. Klucking,

Senior Adviser for Research and Science, Designated Federal Officer, Office of the U.S. Global AIDS Coordinator and Health Diplomacy, Department of State.

[FR Doc. 2019–07431 Filed 4–12–19; 8:45 am]

BILLING CODE 4710–10–P

DEPARTMENT OF STATE

[Public Notice: 10735]

In the Matter of the Designation of the Islamic Revolutionary Guard Corps (and Other Aliases) as a Foreign Terrorist Organization

Based upon a review of the Administrative Record assembled in this matter, and in consultation with the Attorney General and the Secretary of the Treasury, I conclude that there is a sufficient factual basis to find that the relevant circumstances described in section 219 of the Immigration and Nationality Act, as amended (hereinafter ''INA'') (8 U.S.C. 1189), exist with respect to the Islamic Revolutionary Guard Corps, also known as IRGC; Islamic Revolutionary Guards Corps; Islamic Revolution Guards Corps; Iran's Revolutionary Guard Corps; Islamic Revolutionary Corps; IRG; The Iranian Revolutionary Guards; Islamic Revolutionary Guards; Iran's Revolutionary Guards; Revolutionary Guards; Revolutionary Guard; Army of the Guardians of the Islamic Revolution; The Army of the Guardians of the Islamic Revolution; AGIR; Pasdaran; Pasdaran-e Inqilab; Pasdarn-e Enghelab-e Islami; Sepah; Sepah Pasdaran; Sepah-e Pasdaran-e Enghelab-e Eslami; Sepah-e Pasdaran Enghelab Islami; Islamic Revolutionary Guard Corps-Qods Force; IRGC-Quds Force; IRGC–QF; Qods Force; Sepah-e Qods; Jerusalem Force; Al Qods; Islamic Revolutionary Guard Corps (IRGC)-Qods Force; Pasdaran-e Enghelab-e Islami (Pasdaran); Sepah-e Qods (Jerusalem Force); Qods (Jerusalem) Force of the IRGC; Quds Force; IRGC Ground Forces; Islamic Revolution Guards Corps Ground Force; Basij; Baseej; Basij-e Melli; Islamic Revolution Guards Corps Resistance Force; Basij Resistance Forces; Mobilization of the Oppressed; Mobilization of the Oppressed Unit; Mobilization of the Oppressed Organization; Organization of the Mobilisation of the Oppressed; Sazman Basij Melli; Sazman-e Moghavemat-e Basij; Sazeman-e Basij-e Mostazafan; Vahed-e Basij-e Mostazafeen; Vahed-e Basij Mostaza'feen; National Mobilization Organization; National Resistance Mobilization; Resistance Mobilization Force; Nirooye Moghavemate Basij; Niruyeh Moghavemat Basij; IRGC Air Force; Islamic Revolution Guards Corps Air Force; Islamic Revolutionary Guards Corps Air Force; Islamic Revolutionary Guard Corps Air Force; IRGCAF; Sepah Pasdaran Air Force; Air Force, IRGC (Pasdaran); Islamic Revolutionary Guards Corps Aerospace Force; Aerospace Force of the Army of the Guardians of the Islamic Revolution; AFAGIR; Aerospace Division of IRGC; IRGC Aerospace Force; IRGCASF; IRGC Navy; Islamic Revolution Guards Corps Naval Force.

Therefore, I hereby designate the aforementioned organization and its aliases as a foreign terrorist organization pursuant to section 219 of the INA.

This determination shall be published in the **Federal Register**.

Dated: April 8, 2019.

Michael R. Pompeo,

Secretary of State.

[FR Doc. 2019–07415 Filed 4–12–19; 8:45 am]

BILLING CODE 4710–AD–P

SURFACE TRANSPORTATION BOARD

[Docket No. AB 400 (Sub-No. 7X)]

Seminole Gulf Railway, L.P.—Exempt Abandonment—in Sarasota County, Fla.

Seminole Gulf Railway, L.P. (SGLR), has filed a verified notice of exemption under 49 CFR pt. 1152 subpart F—*Exempt Abandonments* to abandon an approximately 7.68-mile segment of its rail line known as the Venice Branch. The segment to be abandoned extends between milepost SW 890.29 on the north side of Ashton Road and milepost SW 884.70, and between milepost AZA 930.30 and milepost AZA 928.21 on the north side of State Highway 780 (Fruitville Road), partly lying within the City of Sarasota, Sarasota County, Fla., with the remainder lying within unincorporated Sarasota County (the Line). The Line traverses U.S. Postal Service Zip Codes 34232, 34233, and 34237.[1]

SGLR has certified that: (1) No local freight traffic has moved over the Line for at least two years; (2) because the Line is stub-ended (not a through line), there is no overhead traffic to be rerouted over other lines; (3) no formal complaint filed by a user of rail service on the Line (or by a state or local government entity acting on behalf of such user) regarding cessation of service over the Line either is pending with the Surface Transportation Board (Board) or with any U.S. District Court or has been decided in favor of complainant within the two-year period; and (4) the requirements at 49 CFR 1105.7 and 1105.8 (environmental report and historic report), 49 CFR 1105.12 (newspaper publication), and 49 CFR 1152.50(d)(1) (notice to governmental agencies) have been met.

As a condition to this exemption, any employee adversely affected by the abandonment shall be protected under *Oregon Short Line Railroad—Abandonment Portion Goshen Branch Between Firth & Ammon, in Bingham & Bonneville Counties, Idaho,* 360 I.C.C. 91 (1979). To address whether this condition adequately protects affected employees, a petition for partial revocation under 49 U.S.C. 10502(d) must be filed.

Provided no formal expression of intent to file an offer of financial assistance (OFA)[2] has been received, this exemption will be effective on May 15, 2019, unless stayed pending reconsideration. Petitions to stay that do not involve environmental issues,[3] formal expressions of intent to file an OFA under 49 CFR 1152.27(c)(2),[4] and trail use/rail banking requests under 49 CFR 1152.29 must be filed by April 25, 2019. Petitions for reconsideration or requests for public use conditions under 49 CFR 1152.28 must be filed by May 6, 2019, with the Surface Transportation Board, 395 E Street SW, Washington, DC 20423–0001.

A copy of any petition filed with the Board should be sent to SGLR's representative, Eric M. Hocky, Clark Hill PLC, One Commerce Square, 2005 Market Street, Suite 1000, Philadelphia, PA 19103.

If the verified notice contains false or misleading information, the exemption is void ab initio.

SGLR has filed a combined environmental and historic report that

[1] SGLR originally filed its verified notice on March 8, 2019. By letter filed on March 18, 2019, SGLR notified the Board that the verified notice inadvertently included an incorrect Zip Code and requested that the Board hold the proceeding in abeyance to allow the correction to be made and the required notice periods satisfied. That request was granted, subject to receipt of a supplemental filing. SGLR submitted that filing on March 26, 2019, and that date therefore is considered the verified notice's filed date and the basis for all dates in this notice.

[2] The Board modified its OFA procedures effective July 29, 2017. Among other things, the OFA process now requires potential offerors, in their formal expression of intent, to make a preliminary financial responsibility showing based on a calculation using information contained in the carrier's filing and publicly available information. *See Offers of Financial Assistance,* EP 729 (STB served June 29, 2017); 82 FR 30997 (July 5, 2017).

[3] The Board will grant a stay if an informed decision on environmental issues (whether raised by a party or by the Board's Office of Environmental Analysis (OEA) in its independent investigation) cannot be made before the exemption's effective date. *See Exemption of Out-of-Serv. Rail Lines,* 5 I.C.C.2d 377 (1989). Any request for a stay should be filed as soon as possible so that the Board may take appropriate action before the exemption's effective date.

[4] Each OFA must be accompanied by the filing fee, which is currently set at $1,800. *See* 49 CFR 1002.2(f)(25).

addresses the potential effects, if any, of the abandonment on the environment and historic resources. OEA will issue an environmental assessment (EA) by April 19, 2019. The EA will be available to interested persons on the Board's website, by writing to OEA, or by calling OEA at (202) 245–0305. Assistance for the hearing impaired is available through the Federal Relay Service at (800) 877–8339. Comments on environmental and historic preservation matters must be filed within 15 days after the EA becomes available to the public.

Environmental, historic preservation, public use, or trail use/rail banking conditions will be imposed, where appropriate, in a subsequent decision.

Pursuant to the provisions of 49 CFR 1152.29(e)(2), SGLR shall file a notice of consummation with the Board to signify that it has exercised the authority granted and fully abandoned the Line. If consummation has not been effected by SGLR's filing of a notice of consummation by April 15, 2020, and there are no legal or regulatory barriers to consummation, the authority to abandon will automatically expire.

Board decisions and notices are available at *www.stb.gov*.

Decided: April 9, 2019.

By the Board, Allison C. Davis, Acting Director, Office of Proceedings.

Raina Contee,

Clearance Clerk.

[FR Doc. 2019–07443 Filed 4–12–19; 8:45 am]

BILLING CODE 4915–01–P

DEPARTMENT OF TRANSPORTATION

Federal Highway Administration

Environmental Impact Statement: Strafford County, New Hampshire

AGENCY: Federal Highway Administration (FHWA), DOT.

ACTION: Notice.

SUMMARY: The FHWA is issuing this notice to advise the public that we are rescinding the Notice of Intent (NOI) for a highway project that was proposed to improve access to and from the Spaulding Turnpike (NH Route 16) to the tri-city areas of Dover, Somersworth and Rochester (Exit 10) in New Hampshire. The NOI was published in the **Federal Register** on June 5, 1995, with the intent to publish a Draft Environmental Impact Statement. This rescission is based on a lack of available funding and project support within the New Hampshire State Transportation Improvement Plan (STIP) for the project, as originally proposed.

FOR FURTHER INFORMATION CONTACT: Mr. Jamie Sikora, New Hampshire Division, Federal Highway Administration, 53 Pleasant Street, Suite 2200, Concord, New Hampshire 03301, Telephone: (603) 410–4870.

SUPPLEMETARY INFORMATION: The FHWA, in cooperation with the New Hampshire Department of Transportation (NHDOT), is rescinding the NOI for a proposal to improve access to and from the Spaulding Turnpike (NH Route 16) to the tri-city areas of Dover, Somersworth and Rochester (Exit 10) in New Hampshire. The NOI is being rescinded in large part due to funding constraints, which led to a reduction of scope to focus on the upgrade of NH Route 108 between the Cities of Dover and Rochester through the City of Somersworth. The current proposed actions would improve the capacity along NH Rte. 108 and incorporate community multi transportation needs (bicycle, pedestrian and public transit) within this section of these seacoast communities. NHDOT has recently solicited and engaged a consultant to complete design and environmental services to address the upgrade along NH Rte. 108. Through this process, NHDOT will enter into an expanded public outreach to solicit community input on the smaller scope ''Complete Street Improvements'' project through the Department's Project Development process. Given the reduction in scope and the associated potential impacts of the proposed action, FHWA intends to prepare a lower-level NEPA document to determine if the project has the potential to significantly affect the quality of the human environment. If, at a future time, FHWA determines that the proposed action is likely to have a significant impact on the environment, a new NOI to prepare an EIS will be published.

Issued on: April 9, 2019.

Cynthia Vigue,

Assistant Division Administrator, Federal Highway Administration, Concord, New Hampshire.

[FR Doc. 2019–07400 Filed 4–12–19; 8:45 am]

BILLING CODE 4910–22–P

DEPARTMENT OF TRANSPORTATION

Federal Motor Carrier Safety Administration

[Docket No. FMCSA–2017–0319]

Parts and Accessories Necessary for Safe Operation; Agricultural and Food Transporters Conference of American Trucking Associations Application for Exemption

AGENCY: Federal Motor Carrier Safety Administration (FMCSA), DOT.

ACTION: Notice of final disposition; grant of application for exemption.

SUMMARY: The Federal Motor Carrier Safety Administration (FMCSA) announces its decision to grant a limited 5-year exemption to the Agricultural and Food Transporters Conference (AFTC) of American Trucking Associations (ATA) to allow certain alternate methods for the securement of agricultural commodities transported in wood and plastic boxes and bins and large fiberglass tubs, as well as hay, straw, and cotton bales that are grouped together into large singular units. The Agency has determined that the use of certain alternate cargo securement methods will likely maintain a level of safety that is equivalent to, or greater than the level of safety achieved without the exemption. This conclusion is based on the results of a comprehensive test program conducted by FMCSA in collaboration with the California Highway Patrol (CHP), the California Department of Food and Agriculture and the California Trucking Association.

DATES: This exemption is effective April 15, 2019 and ending April 15, 2024.

FOR FURTHER INFORMATION CONTACT: Mr. Luke W. Loy, Vehicle and Roadside Operations Division, Office of Carrier, Driver, and Vehicle Safety, MC–PSV, (202) 366–0676, Federal Motor Carrier Safety Administration, 1200 New Jersey Avenue SE, Washington, DC 20590–0001.

Docket: For access to the docket to read background documents or comments submitted to notice requesting public comments on the exemption application, go to *www.regulations.gov* at any time or visit Room W12–140 on the ground level of the West Building, 1200 New Jersey Avenue SE, Washington, DC, between 9 a.m. and 5 p.m., ET, Monday through Friday, except Federal holidays. The on-line Federal document management system is available 24 hours each day, 365 days each year. The docket number is listed at the beginning of this notice.

SUPPLEMENTARY INFORMATION:

Background

Under 49 CFR part 381, FMCSA has authority to grant exemptions from some of the Federal Motor Carrier Safety Regulations (FMCSRs). Pursuant to 49 CFR 381.315(a), FMCSA must publish a notice of each exemption request in the **Federal Register**. The Agency must provide the public with an opportunity to inspect the information relevant to the application, including any safety analyses that have been conducted. The Agency must also provide an opportunity for public comment on the request.

The Agency reviews the safety analyses and the public comments and determines whether granting the exemption would likely achieve a level of safety equivalent to or greater than the level that would be achieved by the current regulation (49 CFR 381.305). The decision of the Agency must be published in the **Federal Register** (49 CFR 381.315(b)). If the Agency denies the request, it must state the reason for doing so. If the decision is to grant the exemption, the notice must specify the person or class of persons receiving the exemption and the regulatory provision or provisions from which an exemption is granted. The notice must specify the effective period of the exemption (up to 5 years) and explain its terms and conditions. The exemption may be renewed (49 CFR 381.315(c) and 49 CFR 381.300(b)).

AFTC's Application for Exemption

AFTC applied for an exemption from 49 CFR 393.102, 393.106, 393.110, and 393.114 to allow alternate methods for the securement of (1) agricultural commodities transported in wood and plastic boxes and bins and large fiberglass tubs, and (2) hay, straw, and cotton bales that are grouped together into large singular units. A copy of the application is included in the docket referenced at the beginning of this notice.

AFTC states that ''For the past several years, Agricultural haulers in California have been utilizing annual exemptions granted by the CHP to continue to allow the use of previously existing cargo securement methods for hauling agricultural products. The California annual exemptions were granted because the strict application of the cargo securement requirements that FMCSA identified in a Final Rule in 2002 and became effective in 2004 would have resulted in a less secure agricultural commodity cargo securement environment.''

In support of its application, AFTC states that ''We are requesting this exemption after the Federal Motor Carrier Safety Administration (FMCSA) performed testing and evaluation of various methods utilized in securing a wide variety of agricultural products for transport that occurred in 2007 and 2008. Many cargo securement methods were tested including those used to secure plastic and wood bins, large fiberglass tubs, and hay and cotton bales. The study with FMCSA was a collaborative effort with the California Highway Patrol, California Department of Food and Agriculture, California Trucking Association and several of our carrier members.'' A copy of the draft report has been included in the docket at the beginning of this notice.

AFTC notes that the requested alternate securement methods for boxes, bins, and tubs are intended to apply only to the transportation of agricultural products from the field or storage to the first point of processing and the return or delivery of empty containers to field or storage location. Additionally, loads transported in vans or that are contained on four sides by racks, or for other than agricultural operation as described above must be transported in accordance with the general cargo securement rules of §§ 393.100–393.114. AFTC states ''The reason for the requested variances is because these agricultural commodities are 'grouped' into larger singular 'units' and these larger grouped units of cargo behave differently when tested to the performance requirements under 49 CFR 393.102.''

Without the proposed exemption, AFTC states that commercial motor vehicle operators nationwide would not be allowed to use the alternative cargo securement techniques that have been tested by the John A. Volpe National Transportation Systems Center (Volpe) in cooperation with FMCSA and the California Highway Patrol, and that carriers in California would continue to request to operate under cargo securement exemptions from California that require less cargo securement than that proposed under the requested FMCSA exemption.

The exemption would apply to all CMV operators nationwide that transport agricultural commodities in interstate commerce as described in the attachment to the exemption application which is available in the docket noted at the beginning of this document. Further AFTC notes that granting the exemption ''will provide an increased level of safety as the alternate securement methods require more cargo securement than is currently required under the California exemptions the industry has been operating under for the past few years.''

Comments

FMCSA published a notice of the application in the **Federal Register** on January 5, 2018, and asked for public comment (82 FR 28930). No comments were received.

Background of Regulations

On September 27, 2002, FMCSA published new cargo securement rules (67 FR 61212). The rules were based on the North American Cargo Securement Standard Model Regulation, reflecting (1) the results of a multi-year research program to evaluate U.S. and Canadian cargo securement regulations; (2) the motor carrier industry's best practices; and (3) recommendations presented during a series of public meetings involving U.S. and Canadian industry experts, Federal, State, and Provincial enforcement officials, and other interested parties. Motor carriers were required to comply with the new requirements beginning January 1, 2004.

The cargo securement rules include general securement rules applicable to all types of articles or cargo, with certain exceptions (§§ 393.100–393.114), and commodity-specific rules for cargoes that require specialized means of securement (§§ 393.116–393.136). The commodity-specific requirements take precedence over the general rules for a commodity listed in those sections. This means all cargo securement systems must meet the general requirements, except to the extent a commodity-specific rule imposes additional requirements that prescribe in more detail the securement method to be used. Specifically with respect to AFTC's exemption application, there are no commodity-specific rules applicable to the transportation of (1) agricultural commodities transported in wood and plastic boxes and bins and large fiberglass tubs, or (2) hay, straw, and cotton bales that are grouped together into large singular units.

Overview of Testing

In response to concerns raised by shippers of agricultural commodities, FMCSA contracted with Volpe to develop a detailed test plan to determine if use of current State regulations and industry best practices are capable of meeting the minimum performance criteria of FMCSA's September 2002 cargo securement final rule for the transportation of agricultural commodities and protection against shifting and falling agricultural cargo. Volpe conducted a nationwide review of State regulations and industry practices

related to the transportation of fruits, vegetables, nuts, baled hay and straw, and other agricultural commodities by CMVs engaged in interstate and intrastate commerce. Most information was gathered from commercial agricultural commodity transport operations in California, Washington, Nevada, and New Mexico, and sources contacted included State farm bureaus, trucking associations, and State law enforcement agencies.

On September 12–14, 2007, representatives from FMCSA and Volpe conducted site visits in California to inspect a variety of agricultural securement methods and gather firsthand information on how certain commodities are transported from the field to the processing plant. State and industry representatives contacted included the California Department of Food and Agriculture, the CHP, local farmers, and trucking companies. A series of full-scale tests was performed at the California Highway Patrol (CHP) Academy in West Sacramento between October 30, 2007, and November 8, 2007, to determine the adequacy of current industry practices when compared with the FMCSA cargo securement regulations. Existing State regulations and industry transportation methods were reviewed and tests were conducted simulating the minimum longitudinal and lateral acceleration and deceleration cargo securement performance requirements. Cargo securement methods were tested on plastic bins, wooden bins, fiberglass tomato tubs, small and big bales of hay, and cotton bales.

The testing of the cargo securement systems was done by lifting a semitrailer to simulate the g forces that act on the cargo when the vehicle suddenly accelerates or decelerates or the lateral forces acting on the cargo when the trailer goes around a curve. Commercial semitrailers and semitrailers with converter dollies were used for each cargo securement method tested. The tests were conducted to compare the performance of the different securement methods with the minimum performance criteria identified in §§ 393.102(a)(1) and 393.102(a)(2) of the FMCSRs. During testing, strain-gauge-based load cells were installed to provide data on the loads applied to the cargo securement devices. An accelerometer was used to measure the angle to which each trailer was raised during test lifts. The load cells and accelerometer data output from each test configuration were recorded on a laptop computer. Three types of full-scale securement tests were performed with plastic and wooden fruit bins, tomato tubs, and cotton and hay bales to determine (1) coefficient of friction, (2) securement device tension, and (3) longitudinal and lateral acceleration and longitudinal deceleration.

A summary of the findings of the testing is provided as follows:

- The industry standard agricultural commodity cargo securement practices are effective in ''unitizing'' the individual components (hay bales, plastic/wood bins, cotton bales) into a single ''unit'' of cargo. The addition of welded or bolted blocking at the front of the trailer to inhibit the sudden movement of the ''unitized'' cargo during a hard brake application appears to be highly effective for plastic and wooden bins. The addition of a lateral cargo securement device generated significant improvement in the longitudinal and lateral cargo securement testing for maintaining the cargo on the trailer.
- The best method for securing agricultural commodities hauled in plastic bins involves utilizing a combination of perimeter 3/8-inch wire rope tiedowns (previous industry standard practice) combined with corner irons, and in specific conditions lateral cargo securement devices were included to control lateral movement of the cargo.
- The corner irons and wire rope technique serves to unitize the bins and reduce their movement as individual units. Additional blocking consisting of 2.5-inch angle iron secured with four 9/16-inch Grade 8 bolts was evaluated during testing to restrict movement of the cargo during longitudinal testing. Equivalent blocking techniques utilizing welding of blocking bars, or bars secured in stake pockets should be considered equally effective.
- The addition of lateral cargo securement devices is necessary to minimize the amount of movement at the center of the unitized load. During longitudinal testing, it was shown that the Washington Wrap style of securement at the rear of the load can damage the structural integrity of the plastic bins. During lateral testing, it was shown that the Washington Wrap style of securement allowed significant lateral movement of the unitized load along almost the entire length of the trailer (which could adversely affect the vehicle's stability or maneuverability in real-world driving conditions).
- The industry practice of securing loads of cotton bales, while not tested, appeared to unitize the bales together, and wire rope was used longitudinally to secure the load, and the addition of ½-inch rope laterally was estimated to be sufficient to secure the cotton bales to the trailer and meet the cargo securement performance requirements at 49 CFR 393.102.

A copy of the full report is included in the docket.

FMCSA Decision

The FMCSA has evaluated the AFTC exemption application. The Agency believes that granting the temporary exemption to allow alternate methods for the securement of (1) agricultural commodities transported in wood and plastic boxes and bins and large fiberglass tubs, and (2) hay, straw, and cotton bales that are grouped together into large singular units will likely provide a level of safety that is equivalent to, or greater than, the level of safety achieved without the exemption. The testing of these cargo securement methods in 2007 and 2008 in collaboration with CHP, California Department of Food and Agriculture, California Trucking Association and several member carriers of AFTC proved that the cargo securement performance requirements of 49 CFR 393.102 were met. FMCSA notes that the cargo securement techniques for large and small hay and straw bales, which were evaluated in the draft cargo securement testing report in the docket, were previously addressed in a ''Technical Review of Industry Cargo Securement Practices for Baled Hay and Straw, Revision1,'' dated July 7, 2008. A copy of the technical review has been included in the docket referenced at the beginning of this notice.

Terms and Conditions for the Exemption

The Agency hereby grants the exemption from 49 CFR 393.102, 393.106, 393.110, and 393.114 to allow alternate methods for the securement of (1) agricultural commodities transported in wood and plastic boxes and bins and large fiberglass tubs, and (2) hay, straw, and cotton bales that are grouped together into large singular units for a 5-year period, beginning April 15, 2019 and ending April 15, 2024. During the temporary exemption period, motor carriers will be allowed to use the alternate methods for the securement of agricultural commodities transported in wood and plastic boxes and bins and large fiberglass tubs, and hay, straw, and cotton bales that are grouped together in large singular units as proposed by AFTC in its exemption application. A copy of the alternate cargo securement methods that must be used by motor carriers during the exemption period has been placed in the docket noted at the beginning of this document, and is available on the FMCSA website at

www.fmcsa.dot.gov/insert.specific.link.when.finalized.

The exemption will be valid for 5 years unless rescinded earlier by FMCSA. The exemption will be rescinded if: (1) Motor carriers and/or commercial motor vehicles fail to comply with the terms and conditions of the exemption; (2) the exemption has resulted in a lower level of safety than was maintained before it was granted; or (3) continuation of the exemption would not be consistent with the goals and objectives of 49 U.S.C. 31136(e) and 31315(b).

Interested parties possessing information that would demonstrate that motor carriers using the alternate cargo securement methods for the securement of agricultural commodities transported in wood and plastic boxes and bins and large fiberglass tubs, and hay, straw, and cotton bales that are grouped together in large singular units, are not achieving the requisite statutory level of safety should immediately notify FMCSA. The Agency will evaluate any such information and, if safety is being compromised or if the continuation of the exemption is not consistent with 49 U.S.C. 31136(e) and 31315(b), will take immediate steps to revoke the exemption.

Preemption

In accordance with 49 U.S.C. 31315(d), as implemented by 49 CFR 381.600, during the period this exemption is in effect, no State shall enforce any law or regulation applicable to interstate commerce that conflicts with or is inconsistent with this exemption with respect to a firm or person operating under the exemption. States may, but are not required to, adopt the same exemption with respect to operations in intrastate commerce.

Issued on: April 9, 2019.

Raymond P. Martinez,

Administrator.

[FR Doc. 2019–07437 Filed 4–12–19; 8:45 am]

BILLING CODE 4910–EX–P

DEPARTMENT OF TRANSPORTATION

Federal Motor Carrier Safety Administration

[Docket No. FMCSA–2018–0299]

Hours of Service of Drivers: Application for Exemption; Fiat Chrysler Automobiles (FCA)

AGENCY: Federal Motor Carrier Safety Administration (FMCSA), DOT.

ACTION: Notice of final disposition; denial of application for exemption.

SUMMARY: FMCSA announces its decision to deny the application of Fiat Chrysler Automobiles (FCA) for an exemption from the requirement that its drivers use electronic logging devices (ELDs) to record their hours of service (HOS). FCA requested the exemption for all its operators of commercial motor vehicles (CMVs) including engineers, technicians, and other drivers who operate CMVs on public roads. FMCSA analyzed the exemption application and the single public comment submitted, and has determined that the applicant would not achieve a level of safety that is equivalent to, or greater than, the level that would be achieved absent the exemption.

FOR FURTHER INFORMATION CONTACT: Mr. Richard Clemente, FMCSA Driver and Carrier Operations Division; Office of Carrier, Driver and Vehicle Safety Standards; Telephone: 202–366–2722. Email: *MCPSD@dot.gov.* If you have questions on viewing or submitting material to the docket, contact Docket Services, telephone (202) 366–9826.

SUPPLEMENTARY INFORMATION:

Background

FMCSA has authority under 49 U.S.C. 31136(e) and 31315 to grant exemptions from certain Federal Motor Carrier Safety Regulations (FMCSRs). FMCSA must publish a notice of each exemption request in the **Federal Register** (49 CFR 381.315(a)). The Agency must provide the public an opportunity to inspect the information relevant to the application, including any safety analyses that have been conducted. The Agency must also provide an opportunity for public comment on the request.

FMCSA reviews safety analyses and public comments submitted, and determines whether granting the exemption would likely achieve a level of safety equivalent to, or greater than, the level that would be achieved by the current regulation (49 CFR 381.305(a)). The decision of the Agency must be published in the **Federal Register** (49 CFR 381.315(b)) with the reason for the grant or denial, and, if granted, the specific person or class of persons receiving the exemption, and the regulatory provision or provisions from which exemption is granted. The notice must also specify the effective period of the exemption (up to 5 years), and explain the terms and conditions of the exemption. The exemption may be renewed (49 CFR 381.300(b)).

III. Request for Exemption

FCA's commercial motor vehicles (CMVs) include RAM trucks and other product families, which, when configured with a trailer, have a gross combination weight rating greater than 10,000 pounds. When operated in interstate commerce, this subjects the company and its drivers to 49 CFR parts 300–399, including the hours-of-service (HOS) rules. Procedures and processes are in place to ensure that only FCA and supplier employees with an active driver qualification file operate these vehicles. In any given year, up to 100 FCA employees may be involved in driving its CMVs on product development off-site road trips. All of its engineers and technicians are infrequent drivers who, on average, drive fewer than 2,500 miles a year on public roads. Additionally, all Engineering Groups conduct off-site road trips to evaluate systems and components to support future product development activities. Including non-CMV support vehicles, FCA normally sends between 8 to 12 vehicles with 4 to 5 trailers. This type of trip would include up to 20 drivers (engineers and technicians) who possess either a commercial driver's license or a chauffer's license. Most road trips involve a smaller number of vehicles and drivers, and according to FCA, a significant amount of testing occurs while the vehicles are stationary.

FCA's product development activities encompass working with suppliers on validating engineering redesigns for future vehicles. FCA tests ''next generation'' vehicles against competing products from other original equipment manufacturers in dynamic settings. FCA estimates that 85% to 90% of such testing occurs on site at its facilities or proving grounds, and the remaining testing occurs off site on public roads. Specifically, FCA conducts tests to benchmark vehicles against competing brands, and some of these programs involve calibration and thermal validation of complete vehicle systems at various locations in the United States and Canada. On occasion, the instrumented vehicles and trailers are shipped to the off-site testing location, and on other occasions, FCA's engineers, technicians and suppliers drive these vehicles to the off-site test locations. None of its CMVs are involved in package delivery or passenger transportation.

FCA has already tested several portable electronic logging device (ELD) units and found that the devices interfere with the ability of FCA's data loggers to capture high-speed data from vehicle control modules and networks for critical vehicle validation. Furthermore, the devices cause the logger to suspend all message transmissions in error. As a result of its

detailed investigations on this matter, FCA has concluded that utilizing paper records of duty status (RODS) and/or an HOS compliance application other than an ELD is the most effective and accurate method of measuring and reporting HOS in a manner compatible with FCA's data loggers. FCA further includes a number of exhibits which demonstrate the problems described in the application when utilizing ELDS. The Company also includes HOS and other general compliance forms currently used to remain in compliance with the appropriate Federal Motor Carrier Safety Regulations.

A copy of FCA's application for exemption is available for review in the docket for this notice.

V. Public Comments

On October 18, 2018, FMCSA published notice of this application and requested public comment (83 FR 52870). The Agency received one comment from an individual in opposition to the FCA exemption request. Excerpts from this comment were as follows: ''Fiat's request creates a growing burden on the FMCSA's partners that enforce the Federal Motor Carrier Safety Regulations. Part 395.8(a)(1)(iii)(A)(1) has an exception from the ELD and for a driver to use a paper log for eight days in any 30-day period. If the staff at Fiat is doing 80%–90% of the work on its closed courses where no log is required then the exception in the regulation should be more than sufficient, *i.e.,* 80% of 31 days is 24.8 (25 days) meaning a driver would use a paper log for six days below the eight-day limit. . . . [R]oadside officers must attempt to try and keep track of the numerous exemptions allowed by the FMCSA. . . . The more exemptions that exist decreases [sic] the public's safety as carriers abuse the safety regulations. . . . Fiat could utilize the exception in Part 395.8 and avoid burdening the system with one additional exemption. Fiat should have to substantiate that utilization of the exception in Part 395.8 is not practicable and creates a significant burden on the organization.''

VI. FMCSA Decision

When FMCSA published the final rule mandating ELDs, it relied upon research indicating that the rule improves CMV safety by improving compliance with the HOS rules. The rule also reduces the overall paperwork burden for both motor carriers and drivers.

In its application, FCA provides no analysis of the safety performance of drivers who would operate using paper RODS under the exemption. FCA provides no analysis of how the risk of fatigue and crashes while operating a CMV without an ELD would be equivalent to the risk posed by operating a vehicle with one installed.

The FCA application does not consider practical alternatives or provide an analysis of the safety impacts the requested exemption may cause. It also does not provide countermeasures to be undertaken to ensure that the exemption would likely achieve a level of safety equivalent to, or greater than, the level that would be achieved by the current regulation. Furthermore, based on the information provided in their application, FCA may qualify for the general short-haul (8 days in 30) exemption from ELDs. For these reasons, FMCSA denies FCA's request for an exemption.

Issued on: April 8, 2019.

Raymond P. Martinez,

Administrator.

[FR Doc. 2019–07436 Filed 4–12–19; 8:45 am]

BILLING CODE 4910–EX–P

DEPARTMENT OF TRANSPORTATION

Federal Motor Carrier Safety Administration

[Docket No. FMCSA–2018–0347]

Commercial Driver's License Standards: Application for Exemption; Navistar, Inc. (Navistar)

AGENCY: Federal Motor Carrier Safety Administration (FMCSA), DOT.

ACTION: Notice of final disposition; grant of application for exemption.

SUMMARY: FMCSA announces its decision to grant an exemption to Navistar, Inc. (Navistar) for a commercial motor vehicle (CMV) driver employed by its business partner MAN Truck & Bus AG (MAN) of Munich, Germany. Navistar requested an exemption for Mr. Jerome Douay, a Product Engineer Senior Manager with MAN. He holds a valid German commercial license. MAN is partnering with Navistar to help develop technology advancements in fuel economy and emissions reductions. Mr. Douay wants to test drive Navistar vehicles on U.S. roads to better understand product requirements in ''real world'' environments, and verify results. Navistar believes the requirements for a German commercial license ensure that operation under the exemption will likely achieve a level of safety equivalent to or greater than the level that would be obtained in the absence of the exemption.

DATES: This exemption is effective April 15, 2019 and expires April 15, 2024.

ADDRESSES:

Docket: For access to the docket to read background documents or comments, go to *www.regulations.gov* at any time or visit Room W12–140 on the ground level of the West Building, 1200 New Jersey Avenue SE, Washington, DC, between 9 a.m. and 5 p.m., ET, Monday through Friday, except Federal holidays. The on-line Federal Docket Management System (FDMS) is available 24 hours each day, 365 days each year.

Privacy Act: In accordance with 5 U.S.C. 553(c), DOT solicits comments from the public to better inform its rulemaking process. DOT posts these comments, without edit, including any personal information the commenter provides, to *www.regulations.gov,* as described in the system of records notice (DOT/ALL–14 FDMS), which can be reviewed at *www.dot.gov/privacy.*

FOR FURTHER INFORMATION CONTACT: Ms. Pearlie Robinson, FMCSA Driver and Carrier Operations Division; Office of Carrier, Driver and Vehicle Safety Standards; Telephone: 202–366–4325. Email: *MCPSD@dot.gov.* If you have questions on viewing or submitting material to the docket, contact Docket Services, telephone (202) 366–9826.

SUPPLEMENTARY INFORMATION:

I. Public Participation

Viewing Comments and Documents

To view comments, as well as documents mentioned in this preamble as being available in the docket, go to *www.regulations.gov* and insert the docket number, ''FMCSA–2018–0347 in the ''Keyword'' box and click ''Search.'' Next, click the ''Open Docket Folder'' button and choose the document to review. If you do not have access to the internet, you may view the docket online by visiting the Docket Management Facility in Room W12–140 on the ground floor of the DOT West Building, 1200 New Jersey Avenue SE, Washington, DC 20590, between 9 a.m. and 5 p.m., e.t., Monday through Friday, except Federal holidays.

II. Legal Basis

FMCSA has authority under 49 U.S.C. 31136(e) and 31315 to grant exemptions from the Federal Motor Carrier Safety Regulations. FMCSA must publish a notice of each exemption request in the **Federal Register** (49 CFR 381.315(a)). The Agency must provide the public an opportunity to inspect the information relevant to the application, including

any safety analyses that have been conducted. The Agency must also provide an opportunity for public comment on the request.

The Agency reviews the safety analyses and the public comments, and determines whether granting the exemption would likely achieve a level of safety equivalent to, or greater than, the level that would be achieved by the current regulation (49 CFR 381.305). The decision of the Agency must be published in the **Federal Register** (49 CFR 381.315(b)) with the reason for the grant or denial, and, if granted, the specific person or class of persons receiving the exemption, and the regulatory provision or provisions from which exemption is granted. The notice must also specify the effective period of the exemption (up to 5 years), and explain the terms and conditions of the exemption. The exemption may be renewed (49 CFR 381.300(b)).

Request for Exemption

Navistar has applied for an exemption for Jerome Douay from 49 CFR 383.23, which prescribes licensing requirements for drivers operating CMVs in interstate or intrastate commerce. Mr. Douay is unable to obtain a CDL in any of the U.S. States due to his lack of residency in the United States. A copy of the application is in Docket No. FMCSA–2018–0347.

The exemption would allow Mr. Douay to operate CMVs in interstate or intrastate commerce to support Navistar field tests designed to meet future vehicle safety and environmental requirements and to promote technological advancements in vehicle safety systems and emissions reductions. Mr. Douay needs to drive Navistar vehicles on public roads to better understand ''real world'' environments in the U.S. market. According to Navistar, Mr. Douay will typically drive for no more than 6 hours per day for 2 consecutive days, 50 percent of the test driving will be on two-lane State highways, and 50 percent will be on Interstate highways. The driving will consist of no more than 250 miles per day, for a total of 500 miles during a two-day period on a quarterly basis. He will in all cases be accompanied by a holder of a U.S. CDL who is familiar with the routes to be traveled.

Mr. Douay holds a valid German commercial license, and as explained by Navistar in its exemption request, the requirements for that license ensure that, operating under the exemption, he would likely achieve a level of safety equivalent to, or greater than, the level that would be achieved by the current regulation. Furthermore, according to Navistar, Mr. Douay is familiar with the operation of CMVs worldwide. Navistar requests that the exemption cover the maximum allowable duration of 5 years.

IV. Method To Ensure an Equivalent or Greater Level of Safety

FMCSA has previously determined that the process for obtaining a German commercial license is comparable to, or as effective as, the requirements of part 383, and adequately assesses the driver's ability to operate CMVs in the U.S. Since 2012, FMCSA has granted Daimler drivers similar exemptions [May 25, 2012 (77 FR 31422); July 22, 2014 (79 FR 42626); March 27, 2015 (80 FR 16511); October 5, 2015 (80 FR 60220); July 12, 2016 (81 FR 45217); July 25, 2016 (81 FR 48496); August 17, 2017 (82 FR 39151)].

V. Public Comments

On December 18, 2018, FMCSA published notice of this application and requested public comments (83 FR 64930). One comment was submitted. Mr. Michael Millard wrote, in part, ''If the FMCSA approves the application to allow the German engineer to operate in the US utilizing the European CDL then the FMCSA should set provisions in the exemption outlining the driver must possess a valid medical certificate per Part 391, be tested for controlled substance and alcohol per Part 382 and fully understand Parts 392 through 397.''

VI. FMCSA Decision

Based upon the merits of this application, including Mr. Douay's extensive driving experience and safety record, FMCSA has concluded that the exemption would likely achieve a level of safety that is equivalent to or greater than the level that would be achieved absent such exemption, in accordance with § 381.305(a).

VII. Terms and Conditions for the Exemption

FMCSA grants Navistar and Jerome Douay an exemption from the CDL requirement in 49 CFR 383.23 to allow Mr. Douay to drive CMVs in this country without a State-issued CDL, subject to the following terms and conditions: (1) The driver and carrier must comply with all other applicable provisions of the FMCSRs (49 CFR parts 350–399); (2) the driver must be in possession of the exemption document and a valid German commercial license; (3) the driver must be employed by and operate the CMV within the scope of his duties for Navistar or its partner MAN; (4) at all times while operating a CMV under this exemption, the driver must be accompanied by a holder of a U.S. CDL who is familiar with the routes traveled; (5) Navistar must notify FMCSA in writing within 5 business days of any accident, as defined in 49 CFR 390.5, involving this driver; and (6) Navistar must notify FMCSA in writing if this driver is convicted of a disqualifying offense under § 383.51 or § 391.15 of the FMCSRs.

In accordance with 49 U.S.C. 31315 and 31136(e), the exemption will be valid for 5 years unless revoked earlier by the FMCSA. The exemption will be revoked if: (1) Mr. Douay fails to comply with the terms and conditions of the exemption; (2) the exemption results in a lower level of safety than was maintained before it was granted; or (3) continuation of the exemption would be inconsistent with the goals and objectives of 49 U.S.C. 31315 and 31136.

VIII. Preemption

In accordance with 49 U.S.C. 31315(d), as implemented by 49 CFR 381.600, during the period this exemption is in effect, no State shall enforce any law or regulation applicable to interstate or intrastate commerce that conflicts with or is inconsistent with this exemption with respect to a firm or person operating under the exemption.

Issued on: April 8, 2019.

Raymond P. Martinez,

Administrator.

[FR Doc. 2019–07434 Filed 4–12–19; 8:45 am]

BILLING CODE 4910–EX–P

DEPARTMENT OF TRANSPORTATION

Federal Motor Carrier Safety Administration

[Docket No. FMCSA–2018–0321]

Parts and Accessories Necessary for Safe Operation; SmartDrive Systems, Inc.

AGENCY: Federal Motor Carrier Safety Administration (FMCSA), DOT.

ACTION: Notice of final disposition.

SUMMARY: The Federal Motor Carrier Safety Administration (FMCSA) announces its decision to grant SmartDrive System, Inc.'s (SmartDrive) application for a limited 5-year exemption from 49 CFR 393.60(e)(1) to allow an Advanced Driver Assistance Systems (ADAS) camera to be mounted lower in the windshield than is currently permitted. The Agency has determined that the placement of the SmartDrive ADAS camera lower in the windshield area would not have an adverse impact on safety, and that

adherence to the terms and conditions of the exemption would likely achieve a level of safety equivalent to or greater than the level of safety provided by the regulation.

DATES: This exemption is effective April 15, 2019 and ending April 15, 2024.

FOR FURTHER INFORMATION CONTACT: Mr. Luke Loy, Vehicle and Roadside Operations Division, Office of Carrier, Driver, and Vehicle Safety, MC–PSV, (202) 366–0676, Federal Motor Carrier Safety Administration, 1200 New Jersey Avenue SE, Washington, DC 20590–0001.

Docket: For access to the docket to read background documents or comments submitted to notice requesting public comments on the exemption application, go to *www.regulations.gov* at any time or visit Room W12–140 on the ground level of the West Building, 1200 New Jersey Avenue SE, Washington, DC, between 9 a.m. and 5 p.m., ET, Monday through Friday, except Federal holidays. The on-line Federal document management system is available 24 hours each day, 365 days each year. The docket number is listed at the beginning of this notice.

SUPPLEMENTARY INFORMATION:

Background

FMCSA has authority under 49 U.S.C. 31136(e) and 31315 to grant exemptions from certain parts of the Federal Motor Carrier Safety Regulations (FMCSR). FMCSA must publish a notice of each exemption request in the **Federal Register** (49 CFR 381.315(a)). The Agency must provide the public an opportunity to inspect the information relevant to the application, including any safety analyses that have been conducted. The Agency must also provide an opportunity for public comment on the request.

The Agency reviews safety analyses and public comments submitted, and determines whether granting the exemption would likely achieve a level of safety equivalent to, or greater than, the level that would be achieved by the current regulation (49 CFR 381.305). The decision of the Agency must be published in the **Federal Register** (49 CFR 381.315(b)) with the reasons for denying or granting the application and, if granted, the name of the person or class of persons receiving the exemption, and the regulatory provision from which the exemption is granted. The notice must also specify the effective period and explain the terms and conditions of the exemption. The exemption may be renewed (49 CFR 381.300(b)).

SmartDrive's Application for Exemption

SmartDrive applied for an exemption from 49 CFR 393.60(e)(1) to allow an ADAS camera to be mounted lower in the windshield than is currently permitted. A copy of the application is included in the docket referenced at the beginning of this notice.

Section 393.60(e)(1)(i) of the FMCSRs prohibits the obstruction of the driver's field of view by devices mounted on the interior of the windshield. Antennas and similar devices must not be mounted more than 152 mm (6 inches) below the upper edge of the windshield, and outside the driver's sight lines to the road and highway signs and signals. Section 393.60(e)(1)(i) does not apply to vehicle safety technologies, as defined in 390.5, including ''a fleet-related incident management system, performance or behavior management system, speed management system, forward collision warning or mitigations system, active cruise control system, and transponder.'' Section 393.60(e)(1)(ii) requires devices with safety technologies to be mounted (1) not more than 100 mm (4 inches) below the upper edge of the area swept by the windshield wipers; or (2) not more than 175 mm (7 inches) above the lower edge of the area swept by the windshield wipers; and (3) outside the driver's sight lines to the road and highway signs and signals.

In its application, SmartDrive stated:

> SmartDrive is making this request so that it becomes possible to introduce Advanced Driver Assistance Systems (ADAS) to our current vehicle safety platform. These new ADAS capabilities include forward collision warnings, short following distance warnings, lane detection and departure warnings, and active monitoring with real-time driver feedback.
>
> This system operates like any other similar systems for which FMCSA has granted exemptions. ADAS requires that a camera be mounted to the upper center area of the windshield in an area where the windshield is swept by the windshield wipers to provide a clear view to the lane markings on the road and other objects in front of the vehicle.
>
> This exemption will accommodate the ADAS camera and housing which is an integral part of our next-generation comprehensive vehicle safety system. The camera housing is approximately 3.71 inches wide by 5.2 inches tall and will be mounted in the approximate center of the windshield with the bottom edge of the camera housing approximately 8 inches below the upper edge of the area swept by the windshield wipers. The camera is mounted outside of the driver[']s and passenger's normal sight lines to the road ahead, signs, signals, and mirrors. The location will allow for the optimal functionality of the advanced safety systems supported by the camera.
>
> SmartDrive has piloted the ADAS camera and functionality and found that all drivers and passengers agreed that there was no noticeable obstruction to the normal sight lines to the road ahead, highway signs, signals or any mirrors.

The exemption would apply to all CMV operators utilizing SmartDrive ADAS camera systems. SmartDrive believes that the installation of the ADAS systems camera within 8 inches below the upper edge of the area swept by the windshield wipers will maintain a level of safety that is equivalent to, or greater than, the level of safety achieved without the exemption.

Comments

FMCSA published a notice of the application in the **Federal Register** on November 27, 2018, and asked for public comment (83 FR 60942). The Agency received comments from the National Tank Truck Carriers, Inc. (NTTC) and three individuals.

NTTC supports granting the application to allow the use of the SmartDrive ADAS system camera, stating that SmartDrive' s application ''falls within the spirit, if not the letter'' of the mandate in Section 5301 of the Fixing America's Surface Transportation (FAST) Act that directed FMCSA to amend the FMCSRs to permit certain ''vehicle safety technologies'' to be mounted within the swept area of the windshield wipers. NTTC stated that ''Windshield-mounted cameras provide well-documented safety benefits. FMCSA has granted applications for similar products before and has been directed to support this life-saving technology. SmartDrive has developed a product that does not fit within FMCSA's pre-approved location on the windshield but does allow the driver an unobstructed view of the road, signs, signals, and mirrors. There is clearly no safety risk.''

Two individuals also supported granting the application. One stated that ''As long as the devices do not block the driver's view, past (above) the outer edge of the hood, they should not be a problem.'' The other stated that ''For over 12 years SmartDrive has modeled a commitment to safety and a record of advancing technologies for the public good. In designing one of the smallest center-mounted ADAS cameras on the market, SmartDrive follows on similar systems for which FMCSA has granted exemptions and achieves the accuracy needed for a sophisticated computer vision camera along with the line of sight versatility required in today's commercial vehicle fleets.''

One individual opposed the application, citing concerns that drivers

need ''the entire usable portion of the windshield in order to have [an] unbroken view of the constantly changing emergencies happening in any direction.''

FMCSA Decision

FMCSA has evaluated the SmartDrive exemption application. The ADAS camera system housing is approximately 3.7 inches wide by 5.2 inches tall and will be mounted in the approximate center of the windshield. The bottom of the camera housing needs to be mounted approximately 8 inches below the top of the swept area of the windshield wipers to obtain the optimal functionality of the advanced safety systems supported by the camera.

The Agency believes that granting the temporary exemption to allow the placement of the ADAS camera system lower than currently permitted by the Agency's regulations will likely provide a level of safety that is equivalent to, or greater than, the level of safety achieved without the exemption because (1) based on the technical information available, there is no indication that the ADAS camera system would obstruct drivers' views of the roadway, highway signs and surrounding traffic; (2) generally, trucks and buses have an elevated seating position that greatly improves the forward visual field of the driver, and any impairment of available sight lines would be minimal; and (3) the mounting location of the bottom edge of the camera housing approximately 8 inches below the top of the area swept by the windshield wipers and out of the driver's normal sightline will be reasonable and enforceable at roadside. In addition, the Agency believes that the use of SmartDrive ADAS system cameras by fleets is likely to improve the overall level of safety to the motoring public.

This action is consistent with previous Agency action permitting the placement of similarly-sized devices on CMVs outside the driver's sight lines to the road and highway signs and signals. FMCSA is not aware of any evidence showing that the installation of other vehicle safety technologies mounted on the interior of the windshield has resulted in any degradation in safety.

Terms and Conditions for the Exemption

The Agency hereby grants the exemption for a 5-year period, beginning April 15, 2019 and ending April 15, 2024. During the temporary exemption period, motor carriers will be allowed to operate CMVs equipped with the SmartDrive ADAS camera system mounted in the approximate center of the windshield such that the bottom edge of the camera is not more than 8 inches below the upper edge of the swept area of the windshield wiper and outside the driver's sight lines to all mirrors, highway signs, signals, and view of the road ahead. The exemption will be valid for 5 years unless rescinded earlier by FMCSA. The exemption will be rescinded if: (1) Motor carriers and/or commercial motor vehicles fail to comply with the terms and conditions of the exemption; (2) the exemption has resulted in a lower level of safety than was maintained before it was granted; or (3) continuation of the exemption would not be consistent with the goals and objectives of 49 U.S.C. 31136(e) and 31315(b).

Interested parties possessing information that would demonstrate that motor carriers operating CMVs equipped with the SmartDrive ADAS camera system are not achieving the requisite statutory level of safety should immediately notify FMCSA. The Agency will evaluate any such information and, if safety is being compromised or if the continuation of the exemption is not consistent with 49 U.S.C. 31136(e) and 31315(b), will take immediate steps to revoke the exemption.

Preemption

In accordance with 49 U.S.C. 31313(d), as implemented by 49 CFR 381.600, during the period this exemption is in effect, no State shall enforce any law or regulation applicable to interstate commerce that conflicts with or is inconsistent with this exemption with respect to a firm or person operating under the exemption. States may, but are not required to, adopt the same exemption with respect to operations in intrastate commerce.

Issued on: April 8, 2019.

Raymond P. Martinez,

Administrator.

[FR Doc. 2019–07435 Filed 4–12–19; 8:45 am]

BILLING CODE 4910–EX–P

DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

Hazardous Materials: Notice of Actions on Special Permits

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA), DOT.

ACTION: Notice of actions on special permit applications.

SUMMARY: In accordance with the procedures governing the application for, and the processing of, special permits from the Department of Transportation's Hazardous Material Regulations, notice is hereby given that the Office of Hazardous Materials Safety has received the application described herein.

DATES: Comments must be received on or before May 15, 2019.

ADDRESSES: Record Center, Pipeline and Hazardous Materials Safety Administration U.S. Department of Transportation Washington, DC 20590.

Comments should refer to the application number and be submitted in triplicate. If confirmation of receipt of comments is desired, include a self-addressed stamped postcard showing the special permit number.

FOR FURTHER INFORMATION CONTACT: Ryan Paquet, Director, Office of Hazardous Materials Approvals and Permits Division, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, East Building, PHH–30, 1200 New Jersey Avenue Southeast, Washington, DC 20590–0001, (202) 366–4535.

SUPPLEMENTARY INFORMATION: Copies of the applications are available for inspection in the Records Center, East Building, PHH–30, 1200 New Jersey Avenue Southeast, Washington, DC or at *http://regulations.gov.*

This notice of receipt of applications for special permit is published in accordance with part 107 of the Federal hazardous materials transportation law (49 U.S.C. 5117(b); 49 CFR 1.53(b)).

Issued in Washington, DC, on April 3, 2019.

Donald P. Burger,

Chief, General Approvals and Permits Branch.

Application No.	Applicant	Regulation(s)	Nature of the special permits thereof
Special Permits Data—Granted			
8757–M	MILTON ROY, LLC	173.201(c), 173.202(c), 173.203(c), 173.302a(a)(1), 173.304a(a)(1), 180.205.	To modify the special permit to authorize the addition of welded lower pressure cylinders in addition to the seamless cylinders already authorized.
10232–M	ITW SEXTON INC	173.304(d), 173.306(j), 173.167.	To modify the special permit to authorize the use of a different proper shipping name for an existing hazmat.
10788–M	BEVIN BROS MANUFACTURING COMPANY.	173.302(a)	To modify the special permit to authorize brazing or welding of foot ring attachments to cylinders proceeding pressure testing.
11646–M	BAKER PETROLITE LLC	172.203(a), 172.301(c), 177.834(h).	To modify the special permit to authorize additional Class 3, 6.1, 8 and 9 hazmat.
15146–M	CHEMTRONICS INC	173.304(d), 172.200, 172.500, 172.400.	To modify the special permit to authorize the use of the limited quantity marking.
16394–M	CELLCO PARTNERSHIP	173.185(f), 172.600, 172.400a, 172.200, 172.300.	To modify the permit to bring the permit provisions in line with regulatory citations.
16413–M	AMAZON.COM, INC	172.301(c), 173.185(c)(1)(iii), 173.185(c)(3)(i).	To modify the special permit to authorize an additional mode of transportation (rail).
20288–M	DEPARTMENT OF DEFENSE (MILITARY SURFACE DEPLOYMENT & DISTRIBUTION COMMAND).	175.10(a)(18)(ii)	To modify the special permit to authorize civilian as well as military personnel to carry on 2 CUPS units.
20351–M	ROEDER CARTAGE COMPANY, INCORPORATED.	180.407(c), 180.407(e), 180.407(f).	To modify the permit to authorize additional tanks for dedicated transportation of authorized hazmat.
20378–M	LG CHEM	172.101(j)	To modify the special permit to authorize fiberboard boxes as outer packaging.
20391–M	Hexagon Purus LLC	173.301(f), 173.302(a)	To modify the special permit to authorize an alternative mounting to the required one that cylinders must be permanently mounted inside of framing that is designed, marked and approved in accordance with the International Convention for Safe Containers (CSC).
20511–M	ARMOTECH s.r.o	107.807(b)(1), 173.301(a)(1), 173.302(f)(1), 173.302(f)(2), 178.71(q), 178.71(t).	To authorize new and additional 2 and 5 inch cylinders.
20511–M	ARMOTECH s.r.o	173.302(a)(1), 173.302(f)(1)	To modify the special permit to authorize three new cylinders.
20635–N	FAR RESEARCH, INC	180.209(a)	To authorize the transportation in commerce of 4BW cylinders used exclusively for trimethylchlorosilane to be visual inspections per CGA C–6 in lieu of periodic hydrostatic testing.
20805–N	LG CHEM	172.101(j)	To authorize the transportation in commerce of lithium batteries exceeding 35 kg by cargo-only aircraft.
20806–N	JAGUAR TEXAS VALVE AND INSTRUMENTS, LLC.	173.302a(a)(1), 173.304a(a)(1)	To authorize the manufacture, mark, sale, and use of non-DOT specification nickel copper alloy 400 cylinders.
20808–N	INNOPHOS, INC	178.504(b)(9)	To authorize the transportation in commerce of UN 1A1 drums containing polyphosphoric acid in quantities that exceed the maximum mass authorize for steel drums.
20829–N	JAPAN AEROSPACE EXPLORATION AGENCY.	173.302	To authorize the transportation in commerce of a non-DOT pressure vessel described as a JEM-Tissue Equivalent Proportional Chamber (J–TEPC) (radiation detector box).
20837–N	DEPARTMENT OF THE ARMY (MILITARY SURFACE DEPLOYMENT & DISTRIBUTION COMMAND).	173.185(a)	To authorize the transportation in commerce of low production lithium ion batteries contained in equipment in a special packaging aboard cargo-only aircraft.
20840–N	YORK SPACE SYSTEMS LLC	173.185(a)(1)(i), 173.185(a)(1)(ii).	York Space Systems is intending to ship a satellite that contains Low Production Lithium Ion Batteries tested to the Manual of Tests and Criteria, part III sub-section 38.3.
Special Permits Data—Denied			
20612–M	WILCO MACHINE & FAB, INC	178.345–7(a)(1), 178.345–3(a)	To modify the special permit to remove the annual testing requirement for some specific tanks.
20791–N	LINDE GAS NORTH AMERICA LLC.	172.203(a), 172.301(c), 173.302a(b), 180.205.	To authorize the transportation in commerce of DOT 3AL cylinders that have been visual inspected per CGA C–6 is performed in lieu of the specified internal visual examination and hydrostatic pressure test for DOT 3AL alloy 6061 cylinders.
Special Permits Data—Withdrawn			
16011–M	AMERICASE, LLC	173.185(f), 172.500, 172.600, 172.700(a), 172.200, 172.400, 172.300.	To clarify that suspected damaged, defective or recalled lithium batteries can be transported according to the permit. (modes 1,2,3).

Application No.	Applicant	Regulation(s)	Nature of the special permits thereof
20323–M	York Space Systems LLC	173.185(a)(1)(i)	To modify the special permit to authorize additional class 9 hazmat.
20822–N	RETURN SOLUTIONS INC	Subchapter C	To authorize the manufacture, mark, sale, and use of non-DOT specification packaging for the transportation in commerce of certain materials authorized to be disposed of under 21 CFR Part 1317, Subpart B.

[FR Doc. 2019–07344 Filed 4–12–19; 8:45 am]
BILLING CODE 4909–60–P

DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

Hazardous Materials: Notice of Applications for Modifications to Special Permits

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA), DOT.

ACTION: List of applications for modification of special permits.

SUMMARY: In accordance with the procedures governing the application for, and the processing of, special permits from the Department of Transportation's Hazardous Material Regulations, notice is hereby given that the Office of Hazardous Materials Safety has received the application described herein. Each mode of transportation for which a particular special permit is requested is indicated by a number in the ''Nature of Application'' portion of the table below as follows: 1—Motor vehicle, 2—Rail freight, 3—Cargo vessel, 4—Cargo aircraft only, 5—Passenger-carrying aircraft.

DATES: Comments must be received on or before April 30, 2019.

ADDRESSES: Record Center, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation Washington, DC 20590.

Comments should refer to the application number and be submitted in triplicate. If confirmation of receipt of comments is desired, include a self-addressed stamped postcard showing the special permit number.

FOR FURTHER INFORMATION CONTACT: Ryan Paquet, Director, Office of Hazardous Materials Approvals and Permits Division, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, East Building, PHH–30, 1200 New Jersey Avenue Southeast, Washington, DC 20590–0001, (202) 366–4535.

SUPPLEMENTARY INFORMATION: Copies of the applications are available for inspection in the Records Center, East Building, PHH–30, 1200 New Jersey Avenue Southeast, Washington DC or at *http://regulations.gov.*

This notice of receipt of applications for special permit is published in accordance with part 107 of the Federal hazardous materials transportation law (49 U.S.C. 5117(b); 49 CFR 1.53(b)).

Issued in Washington, DC, on April 2, 2019.

Donald P. Burger,

Chief, General Approvals and Permits Branch.

SPECIAL PERMITS DATA

Application No.	Applicant	Regulation(s) affected	Nature of the special permits thereof
7657–M	WELKER, INC	173.201, 173.202, 173.203, 173.301(f)(2), 173.302a(a)(1), 173.304(a), 173.22a, 177.840(a)(1).	To modify the special permit to authorize additional Class 3 gases to be added to the permit. (modes 1,2,3,4).
10370–M	WELKER, INC	173.201, 173.202, 173.203, 173.301(f)(2), 173.302a(a)(1), 173.304(a), 177.840(a)(1).	To modify the special permit to make editorial changes to bring it more in line with other special permits, *i.e.,* 9657, 11054. (modes 1,4).
11054–M	WELKER, INC	173.301(f)(2), 173.302a(a)(1), 173.304a(a)(1), 173.304a(d)(3)(i), 173.201(c), 173.202(c), 173.203(c), 177.840(a)(1).	To modify the special permit to authorize additional Class 3 and Division 2.2 gases. (modes 1,2,3,4).
12098–M	CARLETON TECHNOLOGIES, INC.	173.301(f), 173.302a(a)(1)	To modify the special permit to authorize a re-design of the cylinder due to a new welding procedure and to update the drawings on file with PHMSA. (modes 1,2,4).
14791–M	HELIQWEST INTERNATIONAL INC.	172.101(j), 172.200, 172.204(c)(3), 172.300, 173.27(b)(2), 175.30(a)(1).	To modify the special permit to authorize additional Class 9 hazmat and to clarify propane cylinder requirements. (modes 4).
15788–M	AMTROL–ALFA, METALOMECÂNICA, S.A.	173.302a(a), 173.304a(a), 178.71, 180.205, 180.207.	To modify the special permit to authorize hydrogen to be transported in the approved cylinders. (modes 1,2,3,4,5).
16461–M	CYLINDER SALES AND TESTING, LLC.	172.203(a), 172.301(c), 173.302a(b), 180.205.	To modify the special permit to remove the annual gain control accuracy test and replace it with a onetime check at manufacture. (modes 1,2,3,4,5).
16560–M	Lightstore, Inc	173.302(a)	To modify the special permit to authorize additional Division 2.1 and 2.2 gas mixtures. (modes 1,2,3).
16563–M	CALL2RECYCLE, INC	172.200, 172.300, 172.400, 172.600, 172.700(a), 173.185(f).	To modify the special permit to authorize an additional packaging for transporting the authorized hazmat. (modes 1,2,3).
20255–M	COVANTA ENVIRONMENTAL SOLUTIONS, LLC.	Subchapter C	To modify the special permit to authorize air and vessel transportation. (modes 1,2,3,4).

SPECIAL PERMITS DATA—Continued

Application No.	Applicant	Regulation(s) affected	Nature of the special permits thereof
20323–M	GENERAL DYNAMICS MISSION SYSTEMS, INC.	173.185(a)(1)(i)	To modify the special permit to authorize additional Class 9 hazmat (modes 4).
20602–M	THE BOEING COMPANY	173.56(b), 173.62, 173.185(a), 173.185(b), 173.201, 173.302(a), 173.304(a), 177.848(d).	To modify the special permit to authorize any qualified carrier that is capable of transporting Dangerous Goods IAW 49CFR. (modes 1).
20801–M	WALMART INC	172.315(a)(2)	To modify the special permit to remove the requirement that a copy of the special permit be presented to the air carrier before or at the time the shipment is tendered and the requirement that a copy of the special permit accompany each shipment. (modes 1,2).
20323–M	Cummins Inc	172.101(j)	To modify the special permit to increase the authorized net weight to 75 kg. (mode 4).
20474–M	SPACE EXPLORATION TECHNOLOGIES CORP.	105.30, 172.300, 172.400	To modify the special permit to only require a DANGEROUS placard when transporting the recovered Dragon 2 capsule. (mode 1).

[FR Doc. 2019–07343 Filed 4–12–19; 8:45 am]

BILLING CODE 4909–60–P

DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

Hazardous Materials: Notice of Applications for New Special Permits

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA), DOT.

ACTION: List of applications for special permits.

SUMMARY: In accordance with the procedures governing the application for, and the processing of, special permits from the Department of Transportation's Hazardous Material Regulations, notice is hereby given that the Office of Hazardous Materials Safety has received the application described herein. Each mode of transportation for which a particular special permit is requested is indicated by a number in the ''Nature of Application'' portion of the table below as follows: 1—Motor vehicle, 2—Rail freight, 3—Cargo vessel, 4—Cargo aircraft only, 5—Passenger-carrying aircraft.

DATES: Comments must be received on or before May 15, 2019.

ADDRESSES: Record Center, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, Washington, DC 20590.

Comments should refer to the application number and be submitted in triplicate. If confirmation of receipt of comments is desired, include a self-addressed stamped postcard showing the special permit number.

FOR FURTHER INFORMATION CONTACT: Ryan Paquet, Director, Office of Hazardous Materials Approvals and Permits Division, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, East Building, PHH–30, 1200 New Jersey Avenue Southeast, Washington, DC 20590–0001, (202) 366–4535.

SUPPLEMENTARY INFORMATION: Copies of the applications are available for inspection in the Records Center, East Building, PHH–30, 1200 New Jersey Avenue Southeast, Washington, DC or at *http://regulations.gov.*

This notice of receipt of applications for special permit is published in accordance with part 107 of the Federal hazardous materials transportation law (49 U.S.C. 5117(b); 49 CFR 1.53(b)).

Issued in Washington, DC, on April 3, 2019.

Donald P. Burger,

Chief, General Approvals and Permits Branch.

Application No.	Applicant	Regulation(s) affected	Nature of the special permits thereof
Special Permits Data			
20844–N	PAVE NORTHWEST, INC	173.203	To authorize the transportation in commerce of non-DOT specification non-bulk packagings containing UN3264, corrosive liquid, acidic, inorganic, n.o.s. (contains aluminum sulfate). (mode 1).
20845–N	Lithos Energy Inc	172.101(j), 173.185(a)	To authorize the transportation in commerce of low production lithium ion batteries exceeding 35 kg by cargo-only aircraft. (mode 4).
20846–N	CAPELLA SPACE CORP	173.185(a)	To authorize the transportation in commerce of low production lithium ion batteries contained in equipment via motor vehicle and cargo-only aircraft. (mode 1, 4).
20848–N	Cummins Inc.	172.101(j), 173.185(a)	To authorize the transportation in commerce of prototype and low productions lithium batteries in excess of 35 kg by cargo-only aircraft. (mode 4).
20850–N	INSITUFORM TECHNOLOGIES, LLC.	173.203, 173.242	To authorize the transportation in commerce of non-DOT specification bulk packagings containing resin solutions. (mode 1).

Application No.	Applicant	Regulation(s) affected	Nature of the special permits thereof
20851–N	CALL2RECYCLE, INC	172.200, 172.300, 172.400, 172.700(a).	To authorize the manufacture, mark, sale, and use of packaging for the purpose of transporting end-of-life/waste lithium ion cells and batteries and batteries contained in equipment. (mode 1).
20852–N	GENERAL DYNAMICS MISSION SYSTEMS, INC.	173.185(a)(1)(i)	To authorize the transportation in commerce of prototype lithium ion and lithium metal batteries contained in equipment by cargo aircraft. (mode 4).
20853–N	SOLIDENERGY SYSTEMS CORP.	173.185(a)	To authorize the transportation in commerce of prototype and low production lithium ion and lithium metal cells that are not individually packaged in inner packagings. (modes 1, 4).
20854–N	MORGAN FUEL & HEATING CO., INC.	180.417(a)(3)(ii)	To authorize the transportation in commerce of MC 331 cargo tank manufactured after September 1, 1995 that is missing the cargo tank manufacturers Certificate of Compliance. (mode 1).
20855–N	WEYLCHEM US INC	173.304a(a)(1)	To authorize the transportation in commerce of vinyl chloride in non-DOT specification pressure receptacles. (mode 1).
20856–N	SAMSUNG SDI AMERICA, INC.	172.101(j)	To authorize the transportation of lithium ion batteries exceeding 35 kg net weight via cargo-only aircraft. (mode 4).
20857–N	SARTEN	178.33a–7(a)	To authorize the manufacture, mark, sale, and use of non-DOT specification receptacles meeting the requirements of a DOT 2Q except that the minimum wall thickness is reduced. (modes 1, 2, 3, 4, 5).
20858–N	Cryoconcepts, LP	173.304a(a)(1), 173.306(a)	To authorize the transportation in commerce of materials as limited quantities that are not otherwise authorized for the exception. (modes 1, 2, 3, 4, 5).
20860–N	REYNOLDS SYSTEMS, INC	172.320, 173.54(a), 173.54(j), 173.56(b), 173.57, 173.58, 173.60.	To authorize the transportation in commerce of detonators and exploding foil deflagrating initiators that have not been approved in accordance with 173.56(b). (modes 1, 2, 3, 4).

[FR Doc. 2019–07342 Filed 4–12–19; 8:45 am]
BILLING CODE 4909–60–P

DEPARTMENT OF THE TREASURY

Office of the Comptroller of the Currency

Agency Information Collection Activities: Information Collection Renewal; Comment Request; Privacy of Consumer Financial Information

AGENCY: Office of the Comptroller of the Currency (OCC), Treasury.

ACTION: Notice and request for comment.

SUMMARY: The OCC, as part of its continuing effort to reduce paperwork and respondent burden, invites the general public and other federal agencies to take this opportunity to comment on a continuing information collection as required by the Paperwork Reduction Act of 1995 (PRA).

In accordance with the requirements of the PRA, the OCC may not conduct or sponsor, and respondents are not required to respond to, an information collection unless it displays a currently valid Office of Management and Budget (OMB) control number.

The OCC is soliciting comment concerning the renewal of its information collection titled, ''Privacy of Consumer Financial Information.''

DATES: Comments must be received on or before June 14, 2019.

ADDRESSES: Commenters are encouraged to submit comments by email, if possible. You may submit comments by any of the following methods:

- *Email: prainfo@occ.treas.gov.*
- *Mail:* Chief Counsel's Office, Office of the Comptroller of the Currency, Attention: 1557–0216, 400 7th Street SW, Suite 3E–218, Washington, DC 20219.
- *Hand Delivery/Courier:* 400 7th Street SW, Suite 3E–218, Washington, DC 20219.
- *Fax:* (571) 465–4326.

Instructions: You must include ''OCC'' as the agency name and ''1557–0216'' in your comment. In general, the OCC will publish comments on *www.reginfo.gov* without change, including any business or personal information provided, such as name and address information, email addresses, or phone numbers. Comments received, including attachments and other supporting materials, are part of the public record and subject to public disclosure. Do not include any information in your comment or supporting materials that you consider confidential or inappropriate for public disclosure.

You may review comments and other related materials that pertain to this information collection beginning on the date of publication of the second notice for this collection [1] by any of the following methods:

- *Viewing Comments Electronically:* Go to *www.reginfo.gov.* Click on the ''Information Collection Review'' tab. Underneath the ''Currently under Review'' section heading, from the drop-down menu, select ''Department of Treasury'' and then click ''submit.'' This information collection can be located by searching by OMB control number ''1557–0216'' or ''Privacy of Consumer Financial Information.'' Upon finding the appropriate information collection, click on the related ''ICR Reference Number.'' On the next screen, select ''View Supporting Statement and Other Documents'' and then click on the link to any comment listed at the bottom of the screen.
- For assistance in navigating *www.reginfo.gov,* please contact the Regulatory Information Service Center at (202) 482–7340.
- *Viewing Comments Personally:* You may personally inspect comments at the OCC, 400 7th Street SW, Washington, DC. For security reasons, the OCC requires that visitors make an appointment to inspect comments. You may do so by calling (202) 649–6700 or, for persons who are deaf or hearing impaired, TTY, (202) 649–5597. Upon arrival, visitors will be required to

[1] Following the close of the 60-day comment period for this notice, the OCC will publish a notice for 30 days of comment for this collection.

present valid government-issued photo identification and submit to security screening in order to inspect comments.

FOR FURTHER INFORMATION CONTACT: Shaquita Merritt, Clearance Officer, (202) 649–5490 or, for persons who are deaf or hearing impaired, TTY, (202) 649–5597, Chief Counsel's Office, Office of the Comptroller of the Currency, 400 7th Street SW, Washington, DC 20219.

SUPPLEMENTARY INFORMATION: Under the PRA, federal agencies must obtain approval from the OMB for each collection of information that they conduct or sponsor. ''Collection of information'' is defined in 44 U.S.C. 3502(3) and 5 CFR 1320.3(c) to include agency requests or requirements that members of the public submit reports, keep records, or provide information to a third party. Section 3506(c)(2)(A) of title 44 requires federal agencies to provide a 60-day notice in the **Federal Register** concerning each proposed collection of information, including each proposed extension of an existing collection of information, before submitting the collection to OMB for approval. To comply with this requirement, the OCC is publishing notice of the renewal of the collection of information set forth in this document.

Title: Privacy of Consumer Financial Information.

OMB Control No.: 1557–0216.

Description: The Gramm-Leach-Bliley Act (Act) (Pub. L. 106–102) requires this information collection. Regulation P (12 CFR part 1016), a regulation promulgated by the Consumer Financial Protection Board (CFPB), implements the Act's notice requirements and restrictions on a financial institution's ability to disclose nonpublic personal information about consumers to nonaffiliated third parties.

The information collection requirements in 12 CFR part 1016 are as follows:

§ 1016.4(a) Initial privacy notice to consumers requirement—A national bank or federal savings association must provide a clear and conspicuous notice to customers and consumers that accurately reflects its privacy policies and practices.

§ 1016.5(a)(1) Annual privacy notice to customers requirement—A national bank or federal savings association must provide a clear and conspicuous notice to customers that accurately reflects its privacy policies and practices not less than annually during the continuation of the customer relationship.

§ 1016.8 Revised privacy notices—Before a national bank or federal savings association discloses any nonpublic personal information in a way that is inconsistent with the notices previously given to a consumer, the institution must provide the consumer with a clear and conspicuous revised notice of the institution's policies and practices, provide the consumer with a new opt out notice, give the consumer a reasonable opportunity to opt out of the disclosure, and the consumer must not opt out.

§ 1016.7(a) Form of opt out notice to consumers; opt out methods—Form of opt out notice—If a national bank or federal savings association is required to provide an opt out notice under § 1016.10(a), it must provide to each of its consumers a clear and conspicuous notice that accurately explains the right to opt out under that section. The notice must state:

- That the national bank or federal savings association discloses or reserves the right to disclose nonpublic personal information about its consumer to a nonaffiliated third party;
- That the consumer has the right to opt out of that disclosure; and
- A reasonable means by which the consumer may exercise the opt out right.

A national bank or federal savings association provides a reasonable means to exercise an opt out right if it:

- Designates check-off boxes on the relevant forms with the opt out notice;
- Includes a reply form with the opt out notice;
- Provides an electronic means to opt out; or
- Provides a toll-free number that consumers may call to opt out.

§§ 1016.10(a)(2) and 1016.10(c)—Consumers must take affirmative actions to exercise their rights to prevent financial institutions from sharing their information with nonaffiliated parties—

- Opt out—Consumers may direct that the national bank or federal savings association to not disclose nonpublic personal information about them to a nonaffiliated third party, other than permitted by §§ 1016.13–1016.15.
- Partial opt out—Consumers may exercise partial opt out rights by selecting certain nonpublic personal information or certain nonaffiliated third parties with respect to which the consumer wishes to opt out.

§§ 1016.7(h) and 1016(i) Continuing right to opt out and Duration of right to opt out—A consumer may exercise the right to opt out at any time. A consumer's direction to opt out is effective until the consumer revokes it in writing or, if the consumer agrees, electronically. When a customer relationship terminates, the customer's opt out direction continues to apply to the nonpublic personal information collected during or related to that relationship.

Type of Review: Regular.

Affected Public: Businesses or other for-profit; individuals.

Frequency of Response: On occasion.

Estimated Annual Number of Respondents: 2,451,659.

Estimated Total Annual Burden Hours: 626,011.25 hours.

Comments submitted in response to this notice will be summarized and included in the request for OMB approval. Comments are invited on:

(a) Whether the collection of information is necessary for the proper performance of the functions of the OCC, including whether the information has practical utility;

(b) The accuracy of the OCC's estimate of the burden of the collection of information;

(c) Ways to enhance the quality, utility, and clarity of the information to be collected;

(d) Ways to minimize the burden of the collection on respondents, including through the use of automated collection techniques or other forms of information technology; and

(e) Estimates of capital or start-up costs and costs of operation, maintenance, and purchase of services to provide information.

Dated: April 9, 2019.

Theodore J. Dowd,

Deputy Chief Counsel, Office of the Comptroller of the Currency.

[FR Doc. 2019–07432 Filed 4–12–19; 8:45 am]

BILLING CODE 4810–33–P

DEPARTMENT OF THE TREASURY

Internal Revenue Service

Proposed Collection; Comment Request for Notice 2009–52

AGENCY: Internal Revenue Service (IRS), Treasury.

ACTION: Notice and request for comments.

SUMMARY: The Internal Revenue Service, as part of its continuing effort to reduce paperwork and respondent burden, invites the general public and other Federal agencies to take this opportunity to comment on information collections, as required by the Paperwork Reduction Act of 1995. The IRS is soliciting comments concerning Election of Investment Tax Credit in Lieu of Production Tax Credit; Coordination With Department of Treasury Grants for Specified Energy Property in Lieu of Tax Credits.

DATES: Written comments should be received on or before June 14, 2019 to be assured of consideration.

ADDRESSES: Direct all written comments to L. Brimmer, Internal Revenue Service, Room 6526, 1111 Constitution Avenue NW, Washington, DC 20224.

FOR FURTHER INFORMATION CONTACT: Requests for additional information or copies of the form and instructions should be directed to Sara Covington, (202) 317–6038, at Internal Revenue Service, Room 6526, 1111 Constitution Avenue NW, Washington, DC 20224, or through the internet at *sara.l.covington@irs.gov.*

SUPPLEMENTARY INFORMATION:

Title: Election of Investment Tax Credit in Lieu of Production Tax Credit; Coordination with Department of Treasury Grants for Specified Energy Property in Lieu of Tax Credits.

OMB Number: 1545–2145.

Form Number: Notice 2009–52.

Abstract: This notice provides a description of the procedures that taxpayers will be required to follow to make an irrevocable election to take the investment tax credit for energy property under § 48 of the Internal Revenue Code in lieu of the production tax credit under § 45. This election was created by the American Recovery and Reinvestment Act of 2009, H.R. 1, 123 STAT. 115 (the Act), which was enacted on February 17, 2009. This notice includes information about election procedures and the documentation required to complete the election. The notice also discusses the coordination of this irrevocable election with an election to take a Department of Treasury grant for specified energy property.

Current Actions: There is no change in the paperwork burden previously approved by OMB. This notice is being submitted for renewal purposes only.

Type of Review: Extension of a currently approved collection.

Affected Public: Businesses and other for-profit organizations.

Estimated Number of Respondents: 100.

Estimated Time per Respondent: 1 hour.

Estimated Total Annual Burden Hours: 100.

The following paragraph applies to all of the collections of information covered by this notice:

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the collection of information displays a valid OMB control number.

Books or records relating to a collection of information must be retained as long as their contents may become material in the administration of any internal revenue law. Generally, tax returns and tax return information are confidential, as required by 26 U.S.C. 6103.

Request For Comments: Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval. All comments will become a matter of public record. Comments are invited on: (a) Whether the collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden of the collection of information; (c) ways to enhance the quality, utility, and clarity of the information to be collected; (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology; and (e) estimates of capital or start-up costs and costs of operation, maintenance, and purchase of services to provide information.

Approved: April 8, 2019.

Laurie Brimmer,

Senior Tax Analyst.

[FR Doc. 2019–07383 Filed 4–12–19; 8:45 am]

BILLING CODE 4830–01–P

DEPARTMENT OF THE TREASURY

Internal Revenue Service

Proposed Collection; Comment Request for Information Collection Tools

AGENCY: Internal Revenue Service (IRS), Treasury.

ACTION: Notice and request for comments.

SUMMARY: The Internal Revenue Service, as part of its continuing effort to reduce paperwork and respondent burden, invites the general public and other Federal agencies to take this opportunity to comment on information collections, as required by the Paperwork Reduction Act of 1995. The IRS is soliciting comments concerning TD 8611, Conduit Arrangements Regulations (INTL–64–93).

DATES: Written comments should be received on or before June 14, 2019 to be assured of consideration.

ADDRESSES: Direct all written comments to L. Brimmer, Internal Revenue Service, Room 6526, 1111 Constitution Avenue NW, Washington, DC 20224.

FOR FURTHER INFORMATION CONTACT: Requests for additional information or copies of this collection should be directed to Sara Covington, (202) 317–6038, at Internal Revenue Service, Room 6526, 1111 Constitution Avenue NW, Washington, DC 20224, or through the internet at *sara.l.covington@irs.gov.*

SUPPLEMENTARY INFORMATION:

Title: Conduit Arrangements Regulations.

OMB Number: 1545–1440.

Form Number: TD 8611 (INTL–64–93).

Abstract: This regulation provides rules that permit the district director to recharacterize a financing arrangement as a conduit arrangement. The recharacterization will affect the amount of U.S. withholding tax due on financing transactions that are part of the financing arrangement. This regulation affects withholding agents and foreign investors who engage in multi-party financing arrangements.

Current Actions: There is no change in the paperwork burden previously approved by OMB.

Type of Review: Extension of a currently approved collection.

Affected Public: Business or other for-profit organizations.

Estimated Number of Respondents: 1,000.

Estimated Time per Respondent: 10 hours.

Estimated Total Annual Burden Hours: 10,000.

The following paragraph applies to all of the collections of information covered by this notice:

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the collection of information displays a valid OMB control number. Books or records relating to a collection of information must be retained as long as their contents may become material in the administration of any internal revenue law. Generally, tax returns and tax return information are confidential, as required by 26 U.S.C. 6103.

Request for Comments: Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval. All comments will become a matter of public record. Comments are invited on: (a) Whether the collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden of the collection of information; (c) ways to enhance the quality, utility, and clarity of the

information to be collected; (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology; and (e) estimates of capital or start-up costs and costs of operation, maintenance, and purchase of services to provide information.

Approved: April 8, 2019.

Laurie Brimmer,

Senior Tax Analyst.

[FR Doc. 2019–07382 Filed 4–12–19; 8:45 am]

BILLING CODE 4830–01–P

DEPARTMENT OF THE TREASURY

Internal Revenue Service

Proposed Collection; Comment Request for Regulation Project

AGENCY: Internal Revenue Service (IRS), Treasury.

ACTION: Notice and request for comments.

SUMMARY: The Internal Revenue Service, as part of its continuing effort to reduce paperwork and respondent burden, invites the general public and other Federal agencies to take this opportunity to comment on continuing information collections, as required by the Paperwork Reduction Act of 1995. The IRS is soliciting comments concerning commercial revitalization deduction.

DATES: Written comments should be received on or before June 14, 2019 to be assured of consideration.

ADDRESSES: Direct all written comments to Laurie Brimmer, Internal Revenue Service, Room 6529, 1111 Constitution Avenue NW, Washington, DC 20224.

FOR FURTHER INFORMATION CONTACT: Requests for additional information or copies of the form should be directed to Kerry Dennis, at (202) 317–5751 or Internal Revenue Service, Room 6529, 1111 Constitution Avenue NW, Washington, DC 20224, or through the internet, at *Kerry.Dennis@irs.gov.*

SUPPLEMENTARY INFORMATION:

Title: Commercial Revitalization Deduction.

OMB Number: 1545–1818.

Revenue Procedure Number: 2003–38.

Abstract: Pursuant to § 1400I of the Internal Revenue Code, Revenue Procedure 2003–38 provides the time and manner for states to make allocations of commercial revitalization expenditures to a new or substantially rehabilitated building that is placed in service in a renewal community.

Current Actions: There are no changes to the revenue procedure at this time.

Type of Review: Extension of a currently approved collection.

Affected Public: State, local and tribal governments, and business or other for-profit organizations.

Estimated Number of Respondents: 80.

Estimated Time per Respondent: 2 hours, 30 minutes.

Estimated Total Annual Burden Hours: 200.

The following paragraph applies to all of the collections of information covered by this notice.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the collection of information displays a valid OMB control number. Books or records relating to a collection of information must be retained as long as their contents may become material in the administration of any internal revenue law. Generally, tax returns and tax return information are confidential, as required by 26 U.S.C. 6103.

Request for Comments: Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval. All comments will become a matter of public record. Comments are invited on: (a) Whether the collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden of the collection of information; (c) ways to enhance the quality, utility, and clarity of the information to be collected; (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology; and (e) estimates of capital or start-up costs and costs of operation, maintenance, and purchase of services to provide information.

Approved: April 9, 2019.

Laurie Brimmer,

Senior Tax Analyst.

[FR Doc. 2019–07384 Filed 4–12–19; 8:45 am]

BILLING CODE 4830–01–P

DEPARTMENT OF THE TREASURY

United States Mint

Notification of Citizens Coinage Advisory Committee April 16–17, 2019, Public Meeting

The United States Mint announces the Citizens Coinage Advisory Committee (CCAC) public meeting scheduled for April 16–17, 2019.

Date: April 16–17, 2019.

Time: Day 1 (April 16, 2019): 9:30 a.m. to 4:45 p.m.; Day 2 (April 17, 2019): 10:00 a.m. to 12:00 p.m.

Location: 2nd Floor Conference Room A&B, United States Mint, 801 9th Street NW, Washington, DC 20220.

Subject: Review and discussion of candidate designs for the Mayflower 400th Anniversary 24K Gold Coin and Silver Medal, the 2019 American Innovation $1 Coins, and the 2021–2025 American Eagle Platinum Proof Coin Series.

Interested members of the public may either attend the meeting in person or dial in to listen to the meeting at (866) 564–9287/Access Code: 62956028.

Interested persons should call the CCAC HOTLINE at (202) 354–7502 for the latest update on meeting time and room location.

Any member of the public interested in submitting matters for the CCAC's consideration is invited to submit them by email to *info@ccac.gov.*

The CCAC advises the Secretary of the Treasury on any theme or design proposals relating to circulating coinage, bullion coinage, Congressional Gold Medals, and national and other medals; advises the Secretary of the Treasury with regard to the events, persons, or places to be commemorated by the issuance of commemorative coins in each of the five calendar years succeeding the year in which a commemorative coin designation is made; and makes recommendations with respect to the mintage level for any commemorative coin recommended.

Members of the public interested in attending the meeting in person will be admitted into the meeting room on a first-come, first-serve basis as space is limited. Conference Room A&B can accommodate up to 50 members of the public at any one time. In addition, all persons entering a United States Mint facility must adhere to building security protocol. This means they must consent to the search of their persons and objects in their possession while on government grounds and when they enter and leave the facility, and are prohibited from bringing into the facility weapons of any type, illegal drugs, drug paraphernalia, or contraband.

The United States Mint Police Officer conducting the screening will evaluate whether an item may enter into or exit from a facility based upon Federal law, Treasury policy, United States Mint Policy, and local operating procedure; and all prohibited and unauthorized items will be subject to confiscation and disposal.

FOR FURTHER INFORMATION CONTACT: Betty Birdsong, Acting United States Mint Liaison to the CCAC; 801 9th Street NW; Washington, DC 20220; or call 202–354–7200.

Authority: 31 U.S.C. 5135(b)(8)(C).

Dated: April 10, 2019.

David J. Ryder,

Director, United States Mint.

[FR Doc. 2019–07425 Filed 4–12–19; 8:45 am]

BILLING CODE 4810–37–P

U.S.-CHINA ECONOMIC AND SECURITY REVIEW COMMISSION

Notice of Open Public Hearing

AGENCY: U.S.-China Economic and Security Review Commission.

ACTION: Notice of open public hearing.

SUMMARY: Notice is hereby given of the following hearing of the U.S.-China Economic and Security Review Commission.

The Commission is mandated by Congress to investigate, assess, and report to Congress annually on ''the national security implications of the economic relationship between the United States and the People's Republic of China.'' Pursuant to this mandate, the Commission will hold a public hearing in Washington, DC on April 25, 2019 on ''China in Space: A Strategic Competition?''

DATES: The hearing is scheduled for Thursday, April 25, 2019 at 9:30 a.m.

ADDRESSES: TBD, Washington, DC. A detailed agenda for the hearing will be posted on the Commission's website at *www.uscc.gov.* Also, please check the Commission's website for possible changes to the hearing schedule. *Reservations are not required to attend the hearing.*

FOR FURTHER INFORMATION CONTACT: Any member of the public seeking further information concerning the hearing should contact Leslie Tisdale Reagan, 444 North Capitol Street NW, Suite 602, Washington DC 20001; telephone: 202–624–1496, or via email at *lreagan@uscc.gov. Reservations are not required to attend the hearing.*

SUPPLEMENTARY INFORMATION:

Background: This is the fourth public hearing the Commission will hold during its 2019 report cycle. This hearing will address the implications for the United States of China's pursuit of space power as a means of strengthening its economic competitiveness, increasing its military capabilities, and raising its international status. The hearing will examine Administration views of U.S.-China space competition; China's pursuit of global leadership in space; the role of military-civil fusion in China's space ambitions, including China's leveraging of U.S. and other foreign technology and talent to support its military goals; and China's military space activities. The hearing will be co-chaired by Chairman Carolyn Bartholomew and Commissioner Michael McDevitt. Any interested party may file a written statement by April 25, 2019, by mailing to the contact above. A portion of each panel will include a question and answer period between the Commissioners and the witnesses.

Authority: Congress created the U.S.-China Economic and Security Review Commission in 2000 in the National Defense Authorization Act (Pub. L. 106–398), as amended by Division P of the Consolidated Appropriations Resolution, 2003 (Pub. L. 108–7), as amended by Public Law 109–108 (November 22, 2005), as amended by Public Law 113–291 (December 19, 2014).

Dated: April 10, 2019.

Daniel W. Peck,

Executive Director, U.S.-China Economic and Security Review Commission.

[FR Doc. 2019–07416 Filed 4–12–19; 8:45 am]

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Part II

Department of Transportation

Federal Aviation Administration

14 CFR Parts 401, 404, 413, et al.

Streamlined Launch and Reentry Licensing Requirements; Proposed Rule

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Parts 401, 404, 413, 414, 415, 417, 420, 431, 433, 435, 437, 440, and 450

[Docket No.: FAA–2019–0229; Notice No. 19–01]

RIN 2120–AL17

Streamlined Launch and Reentry Licensing Requirements

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This rulemaking would streamline and increase flexibility in the FAA's commercial space launch and reentry regulations, and remove obsolete requirements. This action would consolidate and revise multiple regulatory parts and apply a single set of licensing and safety regulations across several types of operations and vehicles. The proposed rule would describe the requirements to obtain a vehicle operator license, the safety requirements, and the terms and conditions of a vehicle operator license.

DATES: Send comments on or before June 14, 2019.

ADDRESSES: Send comments identified by docket number FAA–2019–0229 using any of the following methods:

Federal eRulemaking Portal: Go to *http://www.regulations.gov* and follow the online instructions for sending your comments electronically.

Mail: Send comments to Docket Operations, M–30; U.S. Department of Transportation (DOT), 1200 New Jersey Avenue SE, Room W12–140, West Building Ground Floor, Washington, DC 20590–0001.

Hand Delivery or Courier: Take comments to Docket Operations in Room W12–140 of the West Building Ground Floor at 1200 New Jersey Avenue SE, Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Fax: Fax comments to Docket Operations at 202–493–2251.

Privacy: In accordance with 5 U.S.C. 553(c), DOT solicits comments from the public to better inform its rulemaking process. DOT posts these comments, without edit, including any personal information the commenter provides, to *www.regulations.gov,* as described in the system of records notice (DOT/ALL–14 FDMS), which can be reviewed at *www.dot.gov/privacy.*

Docket: Background documents or comments received may be read at *http://www.regulations.gov* at any time. Follow the online instructions for accessing the docket or go to the Docket Operations in Room W12–140 of the West Building Ground Floor at 1200 New Jersey Avenue SE, Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: For questions concerning this action, contact Randy Repcheck, Office of Commercial Space Transportation, Federal Aviation Administration, 800 Independence Avenue SW, Washington, DC 205914; telephone (202) 267–8760; email *Randy.Repcheck@faa.gov.*

SUPPLEMENTARY INFORMATION:

Authority for This Rulemaking

The Commercial Space Launch Act of 1984, as amended and codified at 51 U.S.C. 50901–50923 (the Act), authorizes the Department of Transportation, and the FAA through delegation, to oversee, license, and regulate commercial launch and reentry activities, and the operation of launch and reentry sites as carried out by U.S. citizens or within the United States. Section 50905 directs the FAA to exercise this responsibility consistent with public health and safety, safety of property, and the national security and foreign policy interests of the United States. In addition, section 50903 requires the FAA encourage, facilitate, and promote commercial space launches and reentries by the private sector.

If adopted as proposed, this rulemaking would consolidate and revise multiple regulatory parts to apply a single set of licensing and safety regulations across several types of operations and vehicles. It would also streamline the commercial space regulations by, among other things, replacing many prescriptive regulations with performance-based rules, giving industry greater flexibility to develop means of compliance that maximize their business objectives while maintaining public safety. Because this rulemaking would amend the FAA's launch and reentry requirements, it falls under the authority delegated by the Act.

List of Abbreviations and Acronyms Frequently Used in This Document

AC—Advisory Circular
CE_C—Conditional expected casualty
E_C—Expected casualty
ELOS determination—Equivalent-level-of-safety determination
ELV—Expendable launch vehicle
FSA—Flight safety analysis
FSS—Flight safety system
P_C—Probability of casualty
P_I—Probability of impact
RLV—Reusable launch vehicle

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I. Overview of Proposed Rule

The FAA commercial space transportation regulations protect public health and safety and the safety of property from the hazards of launch and reentry. In addition, the regulations address national security and foreign policy interests of the United States, financial responsibility, environmental impacts, informed consent for crew and space flight participants, and, to a limited extent, authorization of payloads not otherwise regulated or owned by the U.S. Government. The FAA is proposing this deregulatory action consistent with President Donald J. Trump's Space Policy Directive—2 (SPD–2) ''Streamlining Regulations on Commercial Use of Space.'' [1] The directive charged the Department of Transportation with revising regulations to require a single license for all types of commercial space flight operations and replace prescriptive requirements with performance-based criteria. Streamlining these regulations would lower administrative burden and regulatory compliance costs and bolster the U.S. space commercial sector and industrial base.

Additionally, this proposed rule incorporates industry input and recommendations provided primarily by the Streamlined Launch and Reentry Licensing Requirements Aviation Rulemaking Committee (ARC). The subject proposed rule would implement the applicable section of SPD–2 and address industry. The recommendation report is provided in the docket for this rulemaking.

Current regulations setting forth application procedures and requirements for commercial space transportation licensing were based largely on the distinction between expendable and reusable launch vehicles. Specifically, title 14 of the Code of Federal Regulations (14 CFR) parts 415 and 417 address the launch of expendable launch vehicles (ELVs) and are based on the Federal launch range standards developed in the 1990s. Part 431 addresses the launch and reentry of reusable launch vehicles (RLVs), and part 435 addresses the reentry of reentry vehicles other than RLVs. Parts 431 and 435 are primarily process-based, relying on a license applicant to derive safety requirements through a ''system safety'' process. That being said, the FAA has used the more detailed part 417 requirements to inform parts 431 and 435. While these separate regulatory parts and requirements satisfied the need of the commercial space transportation industry at the time they were issued,[2] the industry has changed and continues to evolve.

The FAA proposes to consolidate, update, and streamline all launch and reentry regulations into a single performance-based part to better fit today's fast-evolving commercial space transportation industry. Proposed part 450 would include regulations applicable to all launch and reentry vehicles, whether they have reusable components or not. The FAA looked to balance the regulatory certainty but rigidity of current ELV regulations with the flexibility but vagueness of current RLV regulations. As a result, these proposed regulations are flexible and scalable to accommodate innovative safety approaches while also protecting public health and safety, safety of property, and the national security and foreign policy interests of the United States.

The FAA proposes to continue reviewing licenses in five component parts: Policy review, payload review, safety review, maximum probable loss determination, and environmental review. However, after consulting with the FAA, applicants would have the option of submitting portions of applications for incremental review and approval by the FAA. In terms of the applications themselves, the FAA has streamlined and better defined application requirements.

In terms of safety requirements, the FAA would maintain a high level of safety. Neighboring operations requirements would result in a minimal risk increase compared to current regulations, offset by operational benefits. The FAA would anchor the proposed requirements on public safety criteria. The FAA would continue to use the current collective and individual risk criteria. However, this proposal would implement risk criteria for neighboring operations personnel, critical asset protection, and conditional risk to protect from an unlikely but catastrophic event.[3] In particular, the

[1] *Space Policy Directive—2, Streamlining Regulations on Commercial Use of Space;* May 24, 2018 (*https://www.whitehouse.gov/presidential-actions/space-policy-directive-2-streamlining-regulations-commercial-use-space/*).

[2] The current 14 CFR parts 415, 417, 431, and 435 regulatory text can be found at *https://www.ecfr.gov/* under their respective links. The eCFR contains **Federal Register** citations for each time a regulation is modified by rulemaking.

[3] As will be discussed later, ''neighboring operations personnel'' would be defined as those members of the public located within a launch or reentry site, or an adjacent launch or reentry site,

Continued

conditional risk would be used to determine the need for a flight safety system [4] and the reliability of that system. To meet these public safety criteria, most operators would have the option of using traditional hazard controls or to derive alternate controls through a system safety approach. These rules would also revise quantitative flight safety analyses to better define their applicability and to reduce the level of prescriptiveness. In terms of ground safety, the FAA has scoped its oversight to better fit the safety risks and to increase operator flexibility.

To satisfy the proposed performance-based regulations, operators would be able to use a means of compliance that has already been accepted by the FAA or propose an alternate approach. To retain the maximum flexibility to adjust to dynamic industry changes, the FAA would continue to offer operators the choice to request waivers of regulations and equivalent level of safety determinations.

The proposed rule is a deregulatory action under Executive Order 13771.[5] This deregulatory action would consolidate and revise multiple commercial space regulatory parts to apply a single set of licensing and safety regulations across several types of operations and vehicles. It would also replace many prescriptive regulations with performance-based regulations, giving industry greater flexibility to develop a means of compliance that maximizes their business objectives. This proposed rule would result in net cost savings for industry and enable future innovation in U.S. commercial space transportation.

At the time of writing, the FAA estimates this proposed rule would affect 12 operators that have an active license or permit to conduct launch or reentry operations. In addition, the FAA estimates this proposed rule would affect approximately 276 launches over the next 5 years (2019 through 2023). The FAA anticipates this proposed rule would reduce the costs of current and future launch operations by removing prescriptive requirements that are burdensome to meet or require a waiver. The FAA expects these changes would lead to more efficient launch operations and have a positive effect on expanding the number of future launch and reentry operations.

Based on the preliminary analysis, the FAA estimates industry stands to gain about $19 million in discounted present value net savings over 5 years or about $5 million in annualized net savings (using a discount rate of 7 percent). In addition, the FAA will save about $1 million in the same time period. The FAA expects industry will gain additional unquantified savings and benefits as the proposed rule is implemented, since it would provide flexibility and scalability through performance-based requirements that would reduce the future cost of innovation and improve the efficiency and productivity of U.S. commercial space transportation.[6]

Throughout this document, the FAA uses scientific notation to indicate probabilities. For example, 1×10^{-2} means one in a hundred and 1×10^{-6} means one in a million.

II. Background

A. History

As noted earlier, the Act authorizes the Secretary of Transportation to oversee, license, and regulate commercial launch and reentry activities and the operation of launch and reentry sites as carried out by U.S. citizens or within the United States. The Act directs the Secretary to exercise this responsibility consistent with public health and safety, safety of property, and the national security and foreign policy interests of the United States, and to encourage, facilitate, and promote commercial space launches by the private sector. The FAA carries out the Secretary's responsibilities under the Act.

In the past 30 years, the Department of Transportation (DOT) regulations addressing launch and reentry have gone through a number of iterations intended to be responsive to an emerging industry while at the same time ensuring public safety. A review of this history is provided to put this rulemaking in perspective.

1. First Licensing Regulations in 1988

DOT's first licensing regulations for commercial launch activities became effective over 30 years ago, on April 4, 1988. The regulations replaced previous guidance and constituted the procedural framework for reviewing and authorizing all proposals to conduct non-Federal launch activities, including the launching of launch vehicles, operation of launch sites, and payload activities that were not licensed by other federal agencies. They included general administrative procedures and a revised compilation of DOT's information requirements.

No licensed launches had yet taken place when DOT initially issued these regulations. Accordingly, DOT established a flexible regime intended to be responsive to an emerging industry while at the same time ensuring public safety. This approach worked well because all commercial launches at the time took place from Federal launch ranges where safety practices were well established and had proven effective in protecting public safety. In 1991, when the industry reached about ten launches a year, DOT took further steps designed to simplify the licensing process for launch operators with established safety records by instituting a launch operator license, which allowed one license to cover a series of launches where the same safety resources support identical or similar missions.

2. Licensing Changes in 1999

On June 21, 1999,[7] the FAA amended its commercial space transportation licensing regulations to clarify its license application process generally, and for launches from Federal launch ranges specifically. The FAA intended the regulations to provide an applicant or an operator with greater specificity and clarity regarding the scope of a license and to codify and amend licensing requirements and criteria. Notable changes were dividing launch into preflight and flight activities; defining launch to begin with the arrival of the launch vehicle or its major components at a U.S. launch site; separating what had been a safety and mission review into a safety, policy, and

who are not associated with a specific hazardous licensed or permitted operation currently being conducted but are required to perform safety, security, or critical tasks at the site and are notified of the operation. ''Critical asset'' means an asset that is essential to the national interests of the United States. Critical assets include property, facilities, or infrastructure necessary to maintain national defense, or assured access to space for national priority missions. For ''conditional risk,'' the FAA would require that operators quantify the consequence of a catastrophic event, by calculating the conditional risk as conditional expected casualties for any one-second period of flight. Unlike collective risk that determines the expected casualties factoring in the probability that a dangerous event will occur, conditional risk determines the expected casualties assuming the dangerous event will occur.

[4] The FAA proposes to revise the definition in § 401.5 of ''flight safety system'' to mean a system used to implement flight abort. A human can be a part of a flight safety system. The proposed definition is discussed later in this preamble.

[5] Executive Order 13771, *Reducing Regulation and Controlling Regulatory Costs,* January 30, 2017, (*https://www.whitehouse.gov/presidential-actions/presidential-executive-order-reducing-regulation-controlling-regulatory-costs/*).

[6] 51 U.S.C. 50904 grants the FAA authority to oversee, license, and regulate commercial launch and reentry activities, and the operation of launch and reentry sites as carried out by U.S. citizens or within the United States.

[7] *Commercial Space Transportation Licensing Regulations,* Final Rule. 64 FR 19586 (April 21, 1999).

payload review; and the addition of a specific requirement to ''passivate'' any vehicle stage left on orbit to avoid the potential of creating orbital debris through a subsequent explosion.

3. Reusable Launch Vehicle Regulations in 2000

In the mid-1990s, prospective RLV operators identified the absence of adequate regulatory oversight over RLV operations, particularly their reentry, as an impediment to technology development. The need for a stable and predictable regulatory environment in which RLVs could operate was considered critical to the capability of the emerging RLV industry to obtain the capital investment necessary for research and development and ultimately vehicle operations. The Commercial Space Act of 1998, Public Law 105–303, extended DOT's licensing authority to the reentry of reentry vehicles and the operation of reentry sites by non-Federal entities. In September 2000, the FAA amended the commercial space transportation licensing regulations by establishing requirements for the launch of an RLV, the reentry of a reentry vehicle, and the operation of launch and reentry sites.[8]

At the time, the FAA believed that the differences between ELVs and RLVs justified a different regulatory approach. There was a long history of successful ELV launches from Federal launch ranges using detailed prescriptive regulations, encouraging the FAA to follow suit. Also, ELVs and RLVs used different means of terminating flight. ELV launches typically relied on flight safety systems (FSS) that terminated flight to ensure flight safety by preventing a vehicle from traveling beyond approved limits. Unlike an ELV, the FAA contemplated that an RLV might rely upon other means of ending vehicle flight, such as returning to the launch site or using an alternative landing site, in case the vehicle might not be able to safely conclude a mission as planned. Importantly, other than NASA's Space Shuttle, there was little experience with RLVs. For these reasons, the FAA decided to enact flexible process-based regulations for RLVs and other reentry vehicles. These regulations reside in 14 CFR parts 431 and 435.

4. Further Regulatory Changes in 2006

The last major change to FAA launch regulations occurred in 2006.[9] The FAA believed that it would be advantageous for its ELV regulations to be consistent with Federal launch range requirements and worked with the United States Air Force (Air Force) and the National Aeronautics and Space Administration (NASA) to codify safety practices for ELVs. Those regulations reside in 14 CFR parts 415 and 417. The 2006 rule also codified safety responsibilities and requirements that applied to any licensed launch, regardless of whether the launch occurs from a Federal launch range or a non-Federal launch site.

In developing the technical requirements, the FAA built on the safety success of Federal launch ranges and sought to achieve their same high level of safety by using Federal launch range practices as a basis for FAA regulations consistent with its authority. The regulations specified detailed processes, procedures, analyses, and general safety system design requirements. For safety-critical hardware and software, where necessary, the rule provided design and detailed test requirements. The FAA attempted to provide flexibility by allowing a launch operator the opportunity to demonstrate an alternative means of achieving an equivalent level of safety.

5. Evolution of Launch Vehicles and the Need for Updated and Streamlined Regulations

Since 2006, the differences between ELVs and RLVs have blurred. Vehicles that utilize traditional flight safety systems now are partially reusable. For example, the Falcon 9 first stage, launched by Space Exploration Technologies Corporation (SpaceX), routinely returns to the launch site or lands on a barge, and other operators are developing launch vehicles with similar return and reuse capabilities. Although the reuse of safety critical systems or components can have public safety implications, labeling a launch vehicle as expendable or reusable has not impacted the primary approach necessary to protect public safety, certainly not to the extent suggested in the differences between part 431 and parts 415 and 417.

Moreover, the regulations for ELV launches in parts 415 and 417 have proven to be too prescriptive and one-size-fits-all, and the significant detail has caused the regulations to become obsolete in many instances. For example, part 417 requires all launch operators to have at least 11 plans that define how launch processing and flight of a launch vehicle will be conducted, each with detailed requirements. This can lead an operator to produce documents that are not necessary to conduct safe launch operations. In contrast, the regulations for RLV launches have proven to be too general, lacking regulatory clarity. For example, part 431 does not contain specificity regarding the qualification of flight safety systems, acceptable methods for flight safety analyses, and ground safety requirements. This lack of clarity can cause delays in the application process to allow for discussions between the FAA and the applicant. Operators frequently rely upon the requirements in part 417 to demonstrate compliance.

Since 2015, the launch rate has only increased, from 9 licensed launches a year to 33 licensed launches in 2018. Beginning in 2016, the FAA developed a comprehensive strategy to consolidate and streamline the regulatory parts associated with commercial space launch and reentry operations and licensing of space vehicles. Actions by the National Space Council confirmed and accelerated FAA rulemaking plans regarding launch and reentry licenses.

B. Licensing Process

When it issues a license, the Act requires the FAA to do so consistent with public health and safety, safety of property, and national security and foreign policy interests of the United States.[10] The FAA currently conducts its licensing application review in five component parts: Policy Review, Payload Review, Safety Review, Maximum Probable Loss Determination, and Environmental Review. The license application review is depicted in figure 1. A policy review, in consultation with other government agencies, determines whether the launch or reentry would jeopardize U.S. national security or foreign policy interests, or international obligations of the United States. A payload review, also in consultation with other government agencies, determines whether the launch or reentry of a payload would jeopardize public health and safety, safety of property, U.S. national security or the foreign policy interests, or international obligations of the United States. A safety review examines whether the launch or reentry would jeopardize public health and safety and safety of property, and typically is the most extensive part of FAA's review. The Act also requires the FAA to determine financial responsibility of the licensee for third party liability and losses to U.S. Government property based on the maximum probable loss. Lastly, the National Environmental Policy Act requires the FAA to consider and

[8] *Commercial Space Transportation Reusable Launch Vehicle and Reentry Licensing Regulations,* Final Rule. 65 FR 56617 (September 19, 2000).

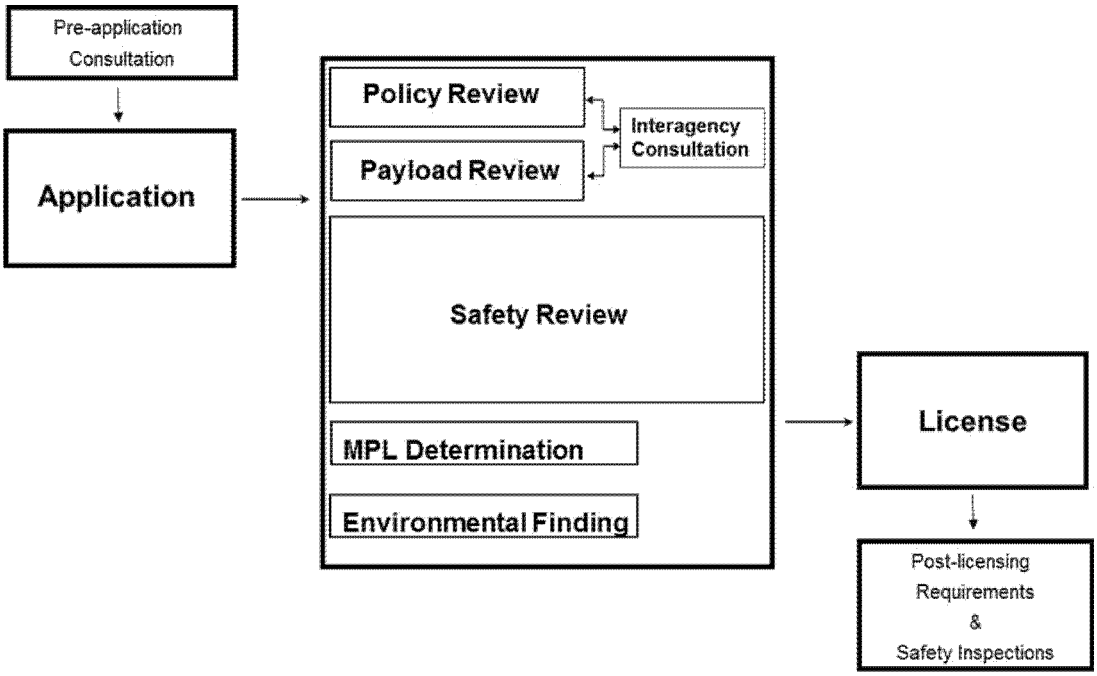
[9] *Licensing and Safety Requirements for Launch,* Final Rule. 71 FR 50508 (August 25, 2006).

[10] 51 U.S.C. 50905(a).

document the potential environmental effects associated with issuing a launch or reentry license.

effects associated with issuing a launch or reentry license.

Figure 1: Licensing Process



This proposal would not alter this 5-pronged approach to licensing. Although the FAA usually evaluates components concurrently, as noted later in this preamble, the FAA may make separate determinations after considering the interrelationship between the components. For instance, this proposal would allow an applicant to apply for a Safety Review component in an incremental manner. This preamble will discuss the proposed incremental review process in further detail later.

C. National Space Council

The National Space Council was established by President George H.W. Bush on April 20, 1989 by Executive Order 12675 to have oversight of U.S. national space policy and its implementation. Chaired by Vice President Dan Quayle until its disbanding in 1993, the first National Space Council consisted of the Secretaries of State, Treasury, Defense, Commerce, Transportation, Energy, the Director of the Office of Management and Budget, the Chief of Staff to the President, the Assistant to the President for National Security Affairs, the Assistant to the President for Science and Technology, the Director of Central Intelligence, and the NASA Administrator.

On June 30, 2017, President Donald J. Trump signed Executive Order 13803, which reestablished the National Space Council to provide a coordinated process for developing and monitoring the implementation of national space policy and strategy. The newly-reinstituted body met for the first time on October 5, 2017. As Chair of the Council, the Vice President directed the Secretaries of Transportation and Commerce, and the Director of the Office of Management and Budget, to conduct a review of the U.S. regulatory framework for commercial space activities and report back within 45 days with a plan to remove barriers to commercial space enterprises. The assigned reports and recommendations for regulatory streamlining were presented at the second convening of the National Space Council on February 21, 2018. The Council approved four recommendations, including DOT's recommendation that the launch and reentry regulations should be reformed into a consolidated, performance-based licensing regime.

On May 24, 2018, the Council memorialized its recommendations in SPD–2. SPD–2 instructed the Secretary of Transportation to publish for notice and comment proposed rules rescinding or revising the launch and reentry licensing regulations, no later than February 1, 2019. SPD–2 charged the Department with revising the regulations such that they would require a single license for all types of commercial space flight operations and replace prescriptive requirements with performance-based criteria. SPD–2 further commended the Secretary to coordinate with the members of the National Space Council, especially the Secretary of Defense and the NASA Administrator, to minimize requirements associated with commercial space flight launch and reentry operations from Federal launch ranges as appropriate.

D. Streamlined Launch and Reentry Licensing Requirements Aviation Rulemaking Committee

On March 8, 2018, the FAA chartered the Streamlined Launch and Reentry Licensing Requirements Aviation Rulemaking Committee (ARC) to provide a forum to discuss regulations to set forth procedures and requirements for commercial space transportation launch and reentry licensing. The FAA tasked the ARC to develop recommendations for a performance-based regulatory approach in which the

regulations set forth the safety objectives to be achieved while providing the applicant with the flexibility to produce tailored and innovative means of compliance.

The ARC's membership represented a broad range of stakeholder perspectives, including members from aviation and space communities. The ARC was supported by the FAA and other federal agency subject matter experts. The following table identifies ARC participants from the private sector:

Aerospace industries association.
Airlines for America.
Alaska Aerospace Corporation.
Astra Space.
Blue Origin.
Boeing.
Coalition for Deep Space Exploration.
Commercial Spaceflight Federation.
Exos Aerospace Systems & Technologies, Inc.
Generation Orbit.
Lockheed Martin Corporation.
MLA Space, LLC.
Mojave air and spaceport.
Orbital ATK.
RocketLab.
Sierra Nevada Corp.
Spaceport America.
SpaceX.
Space Florida.
Stratolaunch.
United Launch Alliance.
Vector Launch, Inc.
Virgin Galactic/Virgin Orbit.
World View Enterprises.

On April 30, 2018, the ARC produced its final recommendation report, which has been placed in the docket to this rulemaking.[11] The ARC recommended that the proposed regulations should—

1. Be performance-based, primarily based upon the ability of the applicant to comply with expected casualty limits.

2. Be flexible.

i. Adopt a single license structure to accommodate a variety of vehicle types and operations and launch or reentry sites.

ii. Allow for coordinated determination of applicable regulations prior to the application submission.

iii. Develop regulations that can be met without waivers.

iv. Use guidance documents to facilitate frequent updates.

3. Reform the pre-application consultation process and requirements.

i. Use ''complete enough'' as the real criterion for entering application evaluation and remove the requirement for pre-application consultation.

ii. Use a level-of-rigor approach to scope an applicant-requested pre-application consultation process as the basis for a ''complete enough'' determination, considering both an applicant's prior experience and whether the subject vehicle is known or unknown.

4. Contain defined review timelines.

i. Support significantly-reduced timelines and more efficient review.

ii. Increase predictability for industry.

iii. Create reduced review timelines for both new and continuing accuracy submissions.

5. Contain continuing accuracy requirements. Continuing accuracy submissions should be based upon impact to public safety as measured by the Expected Casualty (E_C).

6. Limit FAA jurisdiction.

i. Limit FAA jurisdiction to activities so publicly hazardous as to warrant FAA-oversight.

ii. Identify well-defined inspection criteria.

7. Eliminate duplicative jurisdiction on Federal launch ranges.

The FAA will address these recommendations in more detail throughout the remainder of this document.

During the course of the ARC, volunteer industry members formed a Task Group to provide draft regulatory text reflecting proposed revisions to the commercial space transportation regulations. The volunteer industry members of the Task Group were Blue Origin, Sierra Nevada Corporation, Space Florida, and SpaceX. The majority of the ARC opposed the formation of this Task Group and disagreed with including the proposed regulatory text into the ARC's recommendation report. The FAA will not specifically address the proposed regulatory text in this document because it did not receive broad consensus within the ARC.

III. Discussion of the Proposal

A. The FAA's Approach To Updating and Streamlining Launch and Reentry Regulations

The FAA's approach to meeting SPD–2's mandate is to consolidate, update, and streamline all launch and reentry regulations into a single performance-based part. Pursuant to SPD–2, and in the interest of updating the FAA's regulations to reflect the current commercial space industry, the FAA proposes to consolidate requirements for the launch and reentry of ELVs, RLVs, and reentry vehicles other than an RLV.[12] The FAA would also update a number of safety provisions, including areas such as software safety and flight safety analyses (FSA), to reflect recent advancements. Finally, the FAA proposes to streamline its regulations by designing them to be flexible and scalable, to reduce timelines, to remove or minimize duplicative jurisdiction, and to limit FAA jurisdiction over ground safety to operations that are hazardous to the public. This streamlining was the focus of the ARC.

The FAA proposal would follow the ARC recommendations to enable greater regulatory flexibility. First, the proposed rule would be primarily performance-based, codifying performance standards and relying on FAA guidance or other standards to provide acceptable means of compliance. This would allow the regulations to better adapt to advancements in the industry. Second, the FAA proposes to change the structure of its launch and reentry license to be more flexible in the number and types of launches and reentries one license can accommodate. Third, as the ARC suggested, system safety principles would be prominent. All applicants would need to comply with core system safety management principles and conduct a preliminary safety assessment. Some applicants may also be required to use a flight hazard analysis to derive hazard controls particular to their operation. Lastly, for any particular requirement, the FAA would maintain the ability for an applicant or operator to propose an alternative approach for compliance, and then clearly demonstrate that the alternative approach would provide an equivalent level of safety to the requirement.

The ARC recommended that the level of rigor of an applicant's safety demonstration vary based on vehicle history, company history, and the relative risk of the launch or reentry. It also recommended that the FAA not always require a flight safety system. The FAA recognizes that different operations require different levels of rigor, and is proposing a more scalable regulatory regime. Given performance-based regulations are inherently scalable, the FAA proposal is consistent with the ARC recommendation, even though it does not explicitly account for vehicle or operator history as a means of scaling requirements. In addition to performance-based requirements, this proposal would implement a specific level-of-rigor approach to ensure safety requirements are proportionate to the public safety risk in the need for a flight safety system and its required

[11] Streamlined Launch and Reentry Licensing Requirements ARC, *Recommendations Final Report* (April 30, 2008). The ARC Report is available for reference in the docket for this proposed rule.

[12] These requirements currently appear in parts 415, 417, 431, and 435.

reliability, in flight safety analysis,[13] and in software safety. These are all discussed in greater detail later in this preamble.

Because the rulemaking process is time-consuming and labor intensive, the FAA seeks to minimize the need for regulatory updates to proposed part 450 through the proposed performance-based regulations which would allow for a variety of FAA-approved means of compliance. Approving new means of compliance creates flexibility for operators without reducing safety. Additionally, approving new means of compliance is easier to accomplish than updating regulatory standards through the rulemaking process. Thus, the proposed regulatory scheme would be more adaptable to the fast-evolving commercial space industry.

The ARC recommended that the FAA should design a modular approach to application submittal and evaluation and significantly reduce FAA review timelines. This proposal would allow an applicant to apply for a license in an incremental manner,[14] to be developed on a case-by-case basis during pre-application consultation. Most timelines in the proposal would have a default value, followed by an option for the FAA to agree to a different time frame, taking into account the complexity of the request and whether it would allow sufficient time for the FAA to conduct its review and make its requisite findings. Lastly, the FAA proposes to make it easier for a launch or reentry operator to obtain a safety element approval, which would reduce the time and effort of an experienced operator in a future license application. Although these provisions should reduce the time for experienced operators, the FAA does not propose to reduce by regulation the statutory review period of 180 days to make a decision on a license application.

It might be useful to provide some perspective concerning the time the FAA actually takes to make license determinations. The average of the last ten new license determinations through calendar year 2018 was 141 days; the median was 167 days. The FAA strives to expedite determinations when possible to accommodate launch schedules. In three of these ten, the FAA made determinations in 54, 73, and 77 days, all without tolling. Three determinations were tolled for 73, 77, and 171 days. The lengthy tolling was the result of a software issue concerning a flight safety system that the applicant needed to resolve. To our knowledge, a launch has never been delayed as a result of the time it took the FAA to make a license determinations.

The ARC recommended that the FAA propose rules that eliminate duplicative U.S. Government requirements when an operator conducts operations at a Federal launch range. The FAA's proposal would allow for varying levels of Federal launch range involvement, including a single FAA authorization. It would also minimize duplicative work by a launch or reentry operator. This issue is discussed in more detail later in this preamble.

Also, the ARC recommended that the FAA limit its jurisdiction over ground operations to activities so publicly hazardous as to warrant the FAA's oversight. This proposal would scope ground activities overseen by FAA to each operation. It would also permit neighboring operations personnel to be present during launch activities in certain circumstances.

The ARC also recommended that the FAA require the pre-application process only for new operators or new vehicle programs, and that pre-application occur at the operator's discretion for all other operations.[15] The FAA proposes to retain the requirement for pre-application consultation because of the various flexibilities proposed in this rule. These include incremental review, timelines, and the performance-based nature of many of the regulatory requirements. Pre-application consultation would assist operators with the licensing process and accommodate all operators, including those that choose to avail themselves of the flexibilities provided in this proposal. The FAA acknowledges, however, that pre-application consultation can be minimal for operators experienced with FAA requirements. In such cases, consultation may consist of a telephone conversation.

B. Single Vehicle Operator License

As part of its streamlining effort, the FAA proposes in § 450.3 (Scope of Vehicle Operator License) to establish one license, a vehicle operator license, for commercial launch and reentry activity. A vehicle operator license would authorize a licensee to conduct one or more launches or reentries using the same vehicle or family of vehicles and would specify whether it covers launch, reentry, or launch and reentry. The FAA would eliminate the current limitation in § 415.3 specifying a launch license covers only one launch site, and would eliminate the designations of launch-specific license and launch operator license, mission-specific license and operator license, and reentry-specific license and reentry-operator license. The proposal would also allow the FAA to scope the duration of the license to the operation.

Although the FAA has not defined a ''family of vehicles,'' launch operators often do so themselves. Usually, the vehicles share a common core, *i.e.,* the booster and upper stage. Sometimes multiple boosters are attached together to form a larger booster. Historically, solid rocket motors have been attached to core boosters to enhance capability. There has never been an issue concerning what operators and the FAA consider to be members of the same family. It is merely a convenient way to structure licenses.

SPD–2 directed the DOT to revise the current launch and reentry licensing regulations with special consideration to requiring a single license for all types of commercial launch and reentry operations. Similarly, the ARC recommended that the FAA adopt a single license structure to accommodate a variety of vehicle types, operations, and launch and reentry sites. In accordance with these recommendations, the FAA proposes a single vehicle operator license that could be scoped to the operation. In order to accommodate the increasingly similar characteristics of some ELVs and RLVs, as well as future concepts, these proposed regulations would no longer distinguish between ELVs and RLVs. Rather, this proposal would consolidate the licensing requirements for all commercial launch and reentry activities under one part, and applicants would apply for the same type of license.

In addition to accommodating different vehicles and types of operations, this proposal would allow launches or reentries under a single vehicle operator license from or to multiple sites. Under the current regulations, in order for an operator to benefit from using multiple sites for launches authorized by a part 415 license, the operator must apply for a new license.[16] This process is unnecessarily burdensome. This

[13] For flight safety analyses, various levels of rigor would be outlined in ACs.

[14] In this rulemaking, the term ''incremental'' would be synonymous with the ARC's proposed term of ''modular.''

[15] ARC Report at p. 23.

[16] For example, in 2018, a launch operator held a launch license under part 415 that authorized it to launch from Kennedy Space Center (KSC) in Florida; however, the operator contemplated launching from a nearby launch site, Cape Canaveral Air Force Station (CCAFS). Under current part 415, in order to launch from CCAFS instead of KSC, the operator has to file a separate application for a license to launch from CCAFS.

proposed change would facilitate the application process because an operator would no longer be required to apply for a separate license to launch or reenter from a launch site other than that specified by the license.

In order to apply for a license that includes multiple sites, an applicant would need to provide the FAA with application materials that would allow the FAA to conduct separate reviews for each site to determine, for example: Maximum probable loss required by part 440; public risk to populated areas, aircraft, and waterborne vessels; and the environmental impacts associated with proposed launches or reentries. The FAA foresees that a license that authorizes launches or reentries at more than one site would make it administratively easier for an operator to change sites for a particular operation. For example, an operator could move a launch from one site to another due to launch facility availability. A launch might move from CCAFS to KSC. Additionally, FAA foresees multiple sites will be utilized by operators of hybrid vehicles at launch sites with runways as well as vehicles supporting operationally responsive space missions such as DARPA Launch Challenge. Under this proposed licensing regime, an applicant should be prepared to discuss its intent to conduct activity from multiple sites during pre-application consultation. This discussion would give both the applicant and the agency an opportunity to scope the application and identify any potential issues early on when changes to the application or proposed licensed activities would be less likely to cause additional issues or significant delays. The launch operator would not need to specify the specific launches that would be planned for each site. The FAA would continue its current practice for operator licenses of requiring a demonstration that a proposed range of activities, not every trajectory variation within that range, can be safely conducted in order to scope the license. The license would not need to be modified unless the proposed operation fell outside the authorized range.

The FAA further notes that under § 413.11, after an initial screening the FAA determines whether an application is complete enough to begin its review. If an application that includes multiple launch sites is complete enough for the FAA to accept it and begin its review, the 180-day review period under § 413.15(a) would begin. However, if during the FAA's initial review it determines that an application is sufficiently complete to make a license determination for at least one launch site but not all launch sites included in the application, the FAA would have the option to toll the review period, as provided in § 413.15(b). Alternatively, the FAA could continue its review of the part of the application with complete enough information and toll the portion involving any launch site with insufficient information to make a licensing determination. In either case, the FAA would notify the applicant as required by § 413.15(c).

Finally, the FAA proposes a more flexible approach to the duration of a vehicle operator license under § 450.7 (Duration of a Vehicle Operator License). Specifically, the FAA would determine, based on information received from an applicant, the appropriate duration of the license, not to exceed five years. In making this determination, the FAA would continue its current practice of setting the duration of a license for specified launches to be approximately one year after the expected date of the activity. Currently, a launch-specific license expires upon completion of all launches authorized by the license or the expiration date stated in the license, whichever occurs first. An operator license remains in effect for two years for an RLV and five years for an ELV from the date of issuance. The FAA considered setting all license durations to five years, but rejected this option to allow an applicant to obtain a license for a limited specific activity rather than for a more general range of activities. An applicant may prefer a shorter license duration for a specific activity because a licensee has obligations under an FAA license, such as the requirements to demonstrate financial responsibility and allow access to FAA safety inspectors, and a shorter license duration would relieve an applicant of compliance with these requirements after the activity has ended. Unless an operator requests an operator license, currently good for either two or five years, the operator does not typically request a license duration. The FAA initially sets the duration to encompass the authorized activity. The FAA plans to continue its current practice of extending licenses through renewals or modifications to accommodate delays in authorized launches or reentries.

C. Performance-Based Requirements and Means of Compliance

SPD–2 directs the FAA to consider replacing prescriptive requirements in the commercial space flight launch and reentry licensing process with performance-based criteria. The ARC echoed the SPD–2 recommendation for performance-based requirements that allowed varying means of compliance proposed by the operator.[17] In response to SPD–2 and the ARC recommendations, the FAA is proposing to replace many of the prescriptive licensing requirements with performance-based requirements. These performance-based requirements would provide flexibility, scalability, and adaptability as discussed in the introduction. An operator would be able to use an acceptable means of compliance to demonstrate compliance with the requirements.

Currently, the FAA uses both prescriptive and performance-based requirements for launches and reentries respectively.[18] Parts 415 and 417 provide detailed prescriptive requirements for ELVs. Although these requirements provide regulatory certainty, they have proven inflexible. As the industry grows and innovates, ELV operators have identified alternate ways of operating safely that do not comply with the regulations as written. This has forced operators to request waivers or equivalent-level-of safety-determinations (ELOS determinations), often close to scheduled launch dates. On the other hand, the performance-based regulations in parts 431 and 435 lack the detail to efficiently guide operators through the FAA's regulatory regime. Indeed, the FAA often fills these regulatory gaps by adopting part 417 requirements in practice. The process of adding regulatory certainty to these performance-based regulations by adopting part 417 requirements has been frustrating and contentious for both operators and the FAA.

Adopting performance-based requirements that allow operators to use an acceptable means of compliance would decrease the need for waivers or ELOS determinations to address new technology advancements. An acceptable means of compliance is one means, but not the only means, by which a requirement could be met. The FAA would set the safety standard in regulations and identify any acceptable means of compliance currently available. The FAA would provide public notice of each means of compliance that the Administrator has accepted by publishing the acceptance

[17] ARC Report, at p. 7.

[18] Parts 415 and 417, and their associated appendices, provide primarily prescriptive requirements for licensing and launch of an ELV. Part 431 provides primarily performance- and process-based requirements for a launch and reentry of a reusable launch vehicle. Part 435 provides similar requirements to part 431 for the reentry of a reentry vehicle other than a reusable launch vehicle. Parts 431 and 435 rely on a system safety process performed by an operator in order to demonstrate adequate safety of the operation.

on its website, for example. This notification would communicate to the public and the industry that the FAA has accepted a means of compliance or any revision to an existing means of compliance. A consensus standards body, any individual, or any organization would be able to submit means of compliance documentation to the FAA for consideration and potential acceptance.

An operator could also develop its own means of compliance to demonstrate it met the safety standard. Once the Administrator has accepted a means of compliance for that operator, the operator could use it in future license applications. The FAA would not provide public notice of individual operator-developed means of compliance. If any information submitted to the FAA as part of a means of compliance for acceptance is proprietary, it would be afforded the same protections as are applied today to license applications submitted under § 413.9.

For five of the proposed requirements, an operator would have to demonstrate compliance using a means of compliance that has been approved by the FAA before an operator could use it in a license application. These five requirements are flight safety systems (proposed § 450.145), FSA methods (proposed § 450.115), lightning flight commit criteria (proposed § 450.163(a)), and airborne toxic concentration and duration thresholds (proposed §§ 450.139 and 450.187). The FAA has developed Advisory Circulars (ACs) or identified government standards that discuss an acceptable means of compliance for each of these requirements, and has placed these documents in the docket for the public's review and comment. If an operator wishes to use a means of compliance not previously accepted by the FAA to demonstrate compliance with one of the five requirements, the FAA would have to review and accept it prior to an operator using that means of compliance to satisfy a licensing requirement.

If an operator is interested in applying for the acceptance of a unique means of compliance, it should submit any data or documentation to the FAA necessary to demonstrate that the means of compliance satisfies the safety requirements established in the regulation. An operator should note that the FAA will take into account such factors as complexity of the means of compliance; whether the means of compliance is an industry, government, or voluntary consensus standard; and whether the means of compliance has been peer-reviewed during its review and determination. These factors may affect how quickly the FAA is able to review and make a determination. The time could range from a few days to many weeks.

Although applying for the acceptance of a new means of compliance may take time, once an operator's unique means of compliance is accepted by the FAA, the operator can use it in future license applications. The FAA also anticipates that this process will result in flexibility for industry and will encourage innovation as industry and consensus standards bodies [19] develop multiple ways for an operator to meet the requisite safety standards. The FAA believes this is the best approach to enabling new ways of achieving acceptable levels of safety through industry innovation, and seeks public comment on whether this approach may induce additional innovation through industry-developed consensus standards.

D. Launch From a Federal Launch Range

Both industry and the National Space Council have urged government agencies involved in the launch and reentry of vehicles by commercial operators to work towards common standards and to remove duplicative oversight. The ARC recommended an end goal of either exclusive FAA jurisdiction over commercial launches at a range, or a range adopting the same flight safety regulations used by the FAA. SPD–2 directed the Secretary of Defense, the Secretary of Transportation, and the NASA Administrator to coordinate to examine all existing U.S. Government requirements, standards, and policies associated with commercial space flight launch and reentry operations from Federal launch ranges and minimize those requirements, except those necessary to protect public safety and national security, that would conflict with the efforts of the Secretary of Transportation in implementing the Secretary's responsibilities to review and revise its launch and reentry regulations.[20] Most recently, the John S. McCain National Defense Authorization Act for Fiscal Year 2019 includes a provision stating that the Secretary of Defense may not impose any requirement on a licensee or transferee that is duplicative of, or overlaps in intent with, any requirement imposed by the Secretary of Transportation under 51 U.S.C. chapter 509, unless imposing such a requirement is necessary to avoid negative consequences for the national security space program.[21]

Currently, the FAA issues a safety approval to a license applicant proposing to launch from a Federal launch range if the applicant satisfies the requirements of part 415, subpart C, and has contracted with the range for the provision of safety-related launch services and property, as long as an FAA Launch Site Safety Assessment (LSSA) [22] shows that the range's launch services and launch property satisfy part 417. The FAA assesses each range and determines if the range meets FAA safety requirements. If the FAA assessed a range, through its LSSA, and found that an applicable range safety-related launch service or property satisfies FAA requirements, then the FAA treats the range's launch service or property as that of a launch operator's, and there is no need for further demonstration of compliance to the FAA. The FAA reassesses a range's practices only when the range chooses to change its practice.

The ARC recommended that ranges and the FAA have common flight safety regulations and guidance documents. To address this recommendation, the FAA proposes performance-based requirements for both ground and flight safety that an operator could meet using Air Force and NASA practices as a means of compliance. The FAA expects that there will be few, if any, instances where Air Force or NASA practices do not satisfy the proposed performance-based requirements. Additionally, the proposed requirements should provide enough flexibility to accommodate changes in Air Force and NASA practices in the future. The FAA expects that range services that a range applies to U.S. Government launches and

[19] The FAA intends to rely increasingly on voluntary consensus standards as means of compliance. Section 12(d) of the National Technology Advancement Act (Pub. L. 104–113; 15 U.S.C. 3701, *et seq.*) directs federal agencies to use voluntary consensus standards in lieu of government-unique standards except where inconsistent with law or otherwise impractical. Because voluntary consensus bodies are made up of a wide selection of industry participants, and often also include FAA participation, the FAA expects its review of a means of compliance developed by a voluntary consensus standards body would be more expeditious than a custom means of compliance. Unlike means of compliance developed by a voluntary consensus standards body, a custom means of compliance would not be subject to peer review or independent review of the viability of the technical approach.

[20] *SPD*–2; May 24, 2018 (*https://www.whitehouse.gov/presidential-actions/space-policy-directive-2-streamlining-regulations-commercial-use-space*).

[21] Section 1606(2)(A), *John S. McCain National Defense Authorization Act for Fiscal Year 2019,* Public Law 115–232 (amending 51 U.S.C. 50918 note).

[22] LSSA is an FAA evaluation of Federal range services and launch property.

reentries will almost invariably satisfy the FAA's proposed requirements. The FAA currently accepts flight safety analyses performed by Air Force on behalf of an operator without additional analysis and anticipates that it would give similar deference to other analyses by federal agencies once it established that they meet FAA requirements.

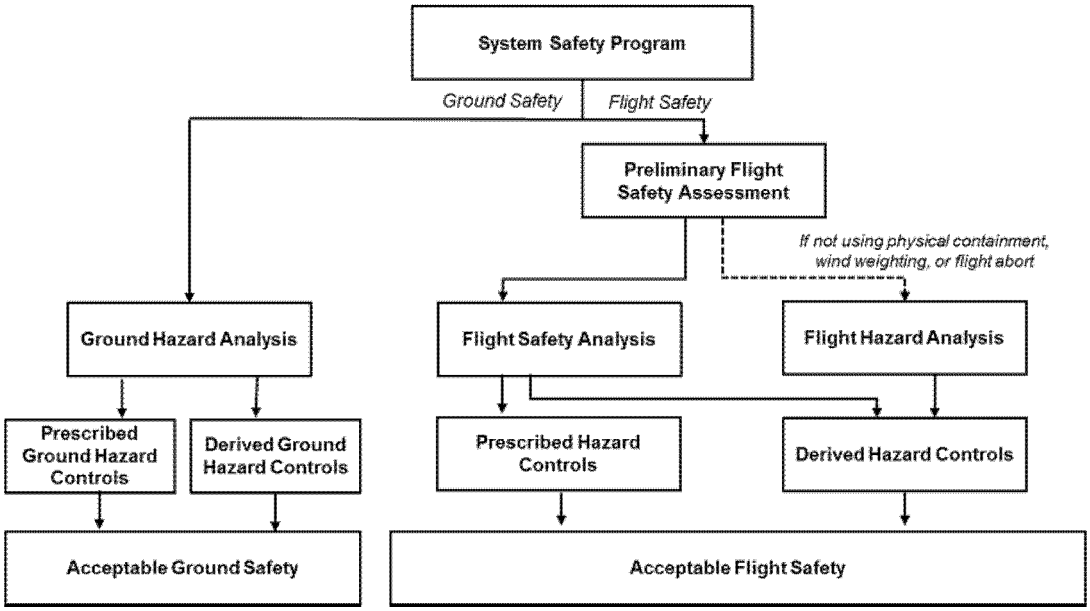
The FAA developed this approach to reduce operator burden to the largest extent possible. The FAA is bound to execute its statutory mandates and may do so only to the extent authorized by those statutes. Although federal entities often have complimentary mandates and statutory authorities, they are rarely identical. That is, each federal department or agency has been given separate mission. Federal entities establish interagency processes to manage closely related functions in as smoothly and least burdensome manner possible. Coordinating FAA requirements, range practices, and those practices implemented at other Federal facilities is largely an interagency issue, this proposal does not include language to eliminate duplicative approvals. Instead, the FAA will continue to work with the appropriate agencies to streamline commercial launch and reentry requirements at ranges and Federal facilities by leveraging the Common Standards Working Group (CSWG).[23]

E. Safety Framework

In addition to proposing a single vehicle operator license and replacing prescriptive requirements with performance-based requirements, this rule would rely on a safety framework that provides the flexibility needed to accommodate current and future operations and the regulatory certainty lacking in some of the current regulations.

This proposal would consolidate the launch and reentry safety requirements in subpart C. Figure 2 depicts the safety framework on which the FAA relied in developing its proposed safety requirements. In developing this framework, the FAA considered following the approach taken in parts 431 and 435 and relying almost exclusively on a robust systems safety approach. As noted earlier, experience has shown that part 431 does not offer enough specificity and, as a result, it has been unclear to operators what safety measures the FAA requires to achieve an acceptable level of safety. In particular, there are no explicit requirements for ground safety, flight safety analysis, or flight safety systems. On the other hand, part 417 is too prescriptive, particularly regarding design and detailed procedural requirements for ground safety, detailed design and test requirements for flight safety systems, and numerous plans that placed needless burden on operators and impeded innovation. Thus, the framework described below is designed to strike a balance between these two parts. The proposed regulations clearly lay out FAA expectations, but should provide a launch or reentry operator with flexibility on how it achieves acceptable public safety. The framework also seeks to allow operators that wish to conduct operations using proven hazard control strategies to do so.

Figure 2: Safety Framework



System Safety Program. All operators would be required to have a system safety program that would establish system safety management principles for both ground and flight safety throughout the operational lifecycle of a launch or reentry system. The system safety program would include a safety organization, procedures, configuration control, and post-flight data review.

Preliminary Flight Safety Assessment. For flight safety, an operator would conduct a preliminary flight safety assessment to identify public hazards and determine the appropriate hazard control strategy for a phase of flight or an entire flight. An operator could use traditional hazard controls such as physical containment, wind weighting, or flight abort to mitigate hazards. Physical containment is when a launch vehicle does not have sufficient energy for any hazards associated with its flight to reach the public or critical assets.

[23] The CSWG consists of range safety personnel from the Air Force and NASA, and was chartered in the early 2000's to develop and maintain common launch safety standards among agencies.

Wind weighting is when the operator of an unguided suborbital launch vehicle adjusts launcher azimuth and elevation settings to correct for the effects of wind conditions at the time of flight to provide a safe impact location for the launch vehicle or its components. Flight Abort is the process to limit or restrict the hazards to public health and safety and the safety of property presented by a launch vehicle or reentry vehicle, including any payload, while in flight by initiating and accomplishing a controlled ending to vehicle flight. Flight abort as a hazard control strategy would be required for a phase of flight that is shown by a consequence analysis to potentially have significant public safety impacts. Otherwise, an operator would be able to bypass these traditional hazard control strategies and conduct a flight hazard analysis.

Flight Hazard Analysis. As an alternative to traditional hazard control measures, an operator would be able to conduct a flight hazard analysis to derive hazard controls. Hazard analysis is a proven engineering discipline that, when applied during system development and throughout the system's lifecycle, identifies and mitigates hazards and, in so doing, eliminates or reduces the risk of potential mishaps and accidents. In addition, a separate hazard analysis methodology is outlined for computing systems and software.

Flight Safety Analysis. Regardless of the hazard control strategy chosen or mandated, an operator would be required to conduct a number of flight safety analyses. At a minimum, these analyses would quantitatively demonstrate that a launch or reentry meets the public safety criteria for debris, far-field overpressure, and toxic hazards. Other analyses support flight abort and wind weighting hazard control strategies and determine flight hazard areas.[24] For a detailed discussion, please see the ''Additional Technical Justification and Rationale'' discussion later in the preamble.

Derived Hazard Controls. An operator would derive a number of hazard controls through its conduct of a flight hazard analysis and flight safety analyses.

Prescribed Hazard Controls. Regardless of the hazard controls derived from a flight hazard analysis and flight safety analyses, the FAA would require a number of other hazard controls that have historically been necessary to achieve acceptable public safety. These include requirements for flight safety and other safety critical systems, agreements, safety-critical personnel qualifications, crew rest, radio frequency management, readiness, communications, preflight procedures, surveillance and publication of hazard areas, lightning hazard mitigation, flight safety rules, tracking, collision avoidance, safety at the end of launch, and mishap planning.

Acceptable Flight Safety. All elements of the safety framework combine to provide acceptable public safety during flight. In proposed § 450.101 (Public Safety Criteria), the FAA would outline specific public safety criteria to clearly define how safe is safe enough. Section 450.101 is discussed in detail later in this preamble.

Ground Safety. With respect to ground safety, an operator would conduct a ground hazard analysis to derive ground hazard controls. Those, along with prescribed hazard controls, would provide acceptable public safety during ground operations.

Flight Safety

A. Public Safety Criteria

Proposed § 450.101 would consolidate all public safety criteria for flight into one section. It would contain the core performance-based safety requirements to protect people and property on land, at sea, in the air, and in space. All other flight safety requirements in proposed part 450 subpart C would support the achievement of these criteria. The § 450.101 requirements would define how safe is safe enough for the flight of a commercial launch or reentry vehicle.

Proposed § 450.101(a) contains launch risk criteria, or the risk thresholds an operator may not exceed during flight. An operator would be permitted to initiate the flight of a launch vehicle only if the collective, individual, aircraft, and critical asset risk satisfy the proposed criteria. The criteria would apply to every launch from liftoff through orbital insertion for an orbital launch, and through final impact or landing for a suborbital launch, which is the same scope used for current launch risk criteria in parts 417 and 431. Each measure of risk serves a different purpose. Collective risk addresses the risk to a population as a whole, whereas individual risk addresses the risk to each person within a population. The measure of aircraft risk is unique, due to the difficulty of modeling collective and individual risk for aircraft in flight. Lastly, critical asset risk addresses the loss of functionality of an asset that is essential to the national interests of the United States. Critical assets include property, facilities, or infrastructure necessary to maintain national defense, or assured access to space for national priority missions.

Proposed § 450.101(a)(1) would establish the collective risk criteria for flight, measured by expected casualties (E_C). The proposal would define E_C as the mean number of casualties predicted to occur per flight operation if the operation were repeated many times. The term casualties refers to serious injuries or worse, including fatalities. It would require the risk to all members of the public, excluding persons in aircraft and neighboring operations personnel, to not exceed an expected number of 1×10^{-4} casualties, posed by impacting inert and explosive debris, toxic release, and far field blast overpressure.[25] With two exceptions, this is the same criteria currently used in §§ 417.107(b)(1) and 431.35(b)(1)(i). The first exception applies to people on waterborne vessels, who would now be included in the collective risk criteria to all members of the public. The second exception applies to neighboring operations personnel. This proposal would require the risk to all neighboring operations personnel not exceed an expected number of 2×10^{-4} casualties. Both of these topics are discussed separately later in this preamble.

Proposed § 450.101(a)(2) would establish the individual risk criteria for flight, measured by probability of casualty (P_C). The proposal would define P_C as the likelihood that a person will suffer a serious injury or worse, including a fatal injury, due to all hazards from an operation at a specific location. It would require the risk to any individual member of the public, excluding neighboring operations personnel, to not exceed a P_C of 1×10^{-6} per launch, posed by impacting inert and explosive debris, toxic release, and far field blast overpressure. With one exception, this is the same criteria currently in §§ 417.107(b)(2) and 431.35(b)(1)(iii). The exception is neighboring operations personnel would have separate individual risk criteria, which is discussed later in this preamble.

Proposed § 450.101(a)(3) would set aircraft risk criteria for flight. It would

[24] Note that flight hazard analysis and flight safety analysis are interdependent in that each can help inform the other. Flight safety analysis quantifies the risks posed by hazards, which are typically identified and mitigated during the flight hazard analysis, by using physics to model how the vehicle will respond to specific failure modes. The FSA is also useful to define when operational restrictions are necessary to meet quantitative risk requirements.

[25] Far field blast overpressure is a phenomenon resulting from the air blast effects of large explosions that may be focused by certain conditions in the atmosphere through which the blast waves propagate. Population may be at risk from broken window glass shards.

require a launch operator to establish any aircraft hazard areas necessary to ensure the probability of impact with debris capable of causing a casualty for aircraft does not exceed 1×10^{-6}. This is the same requirement as current § 417.107(b)(4). Part 431 does not have aircraft risk criteria, although the FAA's current practice is to use the part 417 criteria for launches licensed under part 431. With this proposal, the FAA would expressly apply this criterion to all launches. The FAA does not propose any other changes for the protection of aircraft at this time. The FAA has an ongoing Airspace Access ARC, composed of commercial space transportation and aviation industry representatives, whose recommendations may inform a future rulemaking on protection of aircraft.

Proposed § 450.101(a)(4) would set the launch risk criteria for critical assets. It would require the probability of loss of functionality for each critical asset to not exceed 1×10^{-3}, or some other more stringent probability if deemed necessary to protect the national security interests of the United States. This would be a new requirement and is discussed separately later in this preamble.

Proposed § 450.101(b) would define risk criteria for reentry. These would be the same as the risk criteria for launch, except that the proposed criteria would apply to each reentry, from the final health check prior to the deorbit burn through final impact or landing. The same discussion earlier regarding collective risk, individual risk, aircraft risk, and risk to critical assets would apply to the reentry risk criteria.

Proposed § 450.101(c) would set the flight abort criteria for both launch and reentry. It represents the most significant change to public safety criteria in this proposed rule. It would require that an operator use flight abort as a hazard control strategy if the consequence of any reasonably foreseeable vehicle response mode,[26] in any one-second period of flight, is greater than 1×10^{-3} conditional expected casualties (CE_C) for uncontrolled areas.[27] CE_C is the consequence, measured in terms of E_C, without regard to the probability of failure, and will be discussed in the Consequence Protection Criteria for Flight Abort and Flight Safety System section. Flight abort with the use of an FSS and applying the CE_C criteria in proposed part 450 is discussed later in this preamble. Proposed § 450.101(c) would apply to all phases of flight, unless otherwise agreed to by the FAA based on the demonstrated reliability of the launch or reentry vehicle during that phase of flight. The flight of a certificated aircraft that is carrying a rocket to a drop point is an example of when the use of an FSS would likely not be necessary even though the CE_C could be above the threshold, because the aircraft would have a demonstrated high reliability.

Proposed § 450.101(d) would establish disposal[28] safety criteria. It would require that an operator conducting a disposal of a vehicle stage or component from Earth orbit either meet the criteria of § 450.101(b)(1), (2), and (3), or target a broad ocean area. Because a launch vehicle stage or component will not survive a disposal substantially intact, disposal is not considered a reentry.[29] Disposal is an effective method of orbital debris prevention because it eliminates the vehicle stage or component as a piece of orbital debris and as a risk for future debris creation through collision. The FAA is not proposing to require that a launch operator dispose of any upper stage or component in this rulemaking. The current proposal would only apply if a launch operator chooses to dispose of its upper stage or other launch vehicle component. Although an operator could choose to demonstrate that the proposed collective and individual risk criteria are met for a disposal, the FAA expects most, if not all, disposals to target a broad ocean area.[30] This is consistent with current practice and NASA Technical Standards.[31] Because the broad ocean area has such a low density of people that are exposed almost exclusively in large waterborne vessels, objects that survive reentry to impact in these areas produce an insignificant P_C. Therefore, operators disposing a vehicle stage or component into a broad ocean area would not need to demonstrate compliance with the collective, individual, or aircraft risk criteria. For purposes of this proposal, the FAA considers ''broad ocean'' as an area 200 nautical miles (nm) from land. Two hundred nm is also the recognized limit of exclusive economic zones (EEZ), which are zones prescribed by the United Nations Convention on the Law of the Sea[32] over which the owning state has exclusive exploitation rights over all natural resources. Disposal beyond an EEZ further reduces the chance of disrupting economic operations such as commercial fishing.

Proposed § 450.101(e) would address the protection of people and property on-orbit, through collision avoidance requirements during launch or reentry and through requirements aimed at preventing explosions of launch vehicle stages or components on-orbit. Specifically, proposed § 450.101(e)(1) would require a launch or reentry operator to prevent the collision between a launch or reentry vehicle stage or component, and people or property on-orbit, in accordance with the requirements in proposed § 450.169(a) (Launch and Reentry Collision Avoidance Analysis Requirements). Proposed § 450.101(e)(2) would require that a launch operator prevent the creation of debris through the conversion of energy sources into energy that fragments the stage or component, in accordance with the requirements in proposed § 450.171 (Safety at End of Launch). Proposed § 450.171 would contain the same requirements as in §§ 417.129 and 431.43(c)(3). Both §§ 450.169(a) and 450.171 are addressed in greater detail later in the preamble.

Proposed § 450.101(f) would require that an operator for any launch, reentry, or disposal notify the public of any region of land, sea, or air that contains, with 97 percent probability of containment, all debris resulting from normal flight events capable of causing a casualty. The requirement to notify the public of planned impacts is currently in §§ 417.111(i)(5) and 431.75(b). The calculation of such hazard areas is discussed later in this preamble in the

[26] Vehicle response mode means a mutually exclusive scenario that characterizes foreseeable combinations of vehicle trajectory and debris generation.

[27] Uncontrolled Area is an area of land not controlled by a launch or reentry operator, a launch or reentry site operator, an adjacent site operator, or other entity by agreement.

[28] The FAA proposes to define ''disposal'' in § 401.5 to mean the return or attempt to return, purposefully, a launch vehicle stage or component, not including a reentry vehicle, from Earth orbit to Earth, in a controlled manner. The proposed definition is discussed later in this preamble.

[29] A ''reentry'' is defined in 51 U.S.C. 50902, as ''to return or attempt to return, purposefully, a reentry vehicle and its payload or human beings, if any, from Earth orbit or from outer space to Earth.'' A ''reentry vehicle'' is defined as ''a vehicle designed to return from Earth orbit or outer space to Earth, or a reusable launch vehicle designed to return from Earth orbit or outer space to Earth, substantially intact.''

[30] A disposal that ''targets a broad ocean area'' would wholly contain the disposal hazard area within a broad ocean area.

[31] NASA–STD–8715.14A, paragraph 4.7.2.1.b, states, ''For controlled reentry, the selected trajectory shall ensure that no surviving debris impact with a kinetic energy greater than 15 joules is closer than 370 km from foreign landmasses, or is within 50 km from the continental U.S., territories of the U.S., and the permanent ice pack of Antarctica.''

[32] *United Nations Convention on the Law of the Sea,* Dec. 10, 1982, 1833 U.N.T.S. 397. Although the United States has not ratified UNCLOS, its comprehensive legal framework codifies customary international law governing uses of the ocean.

discussion of proposed § 450.133 (Flight Hazard Areas). Notification of planned impacts would be included in proposed § 450.101 because it is not tied to risk and is therefore not covered by the other public safety criteria of proposed § 450.101.

In proposed § 450.101(g), the FAA would establish performance level requirements for the validity of analysis methods. Specifically, consistent with the existing language in § 417.203(c) and current practice for launch and reentry assessments, an operator's analysis method would have to use accurate data and scientific principles and be statistically valid. ''Accurate data'' would continue to refer to completeness, exactness, and fidelity to the maximum extent practicable. In this context, ''scientific principles'' would continue to refer to knowledge based on the scientific method, such as that established in the fields of physics, chemistry, and engineering. An analysis based on non-scientific principles, such as astrology, would not be consistent with this standard. A ''statistically valid'' analysis would be the result of a sound application of mathematics and would account for the uncertainty in any statistical inference due to sample size limits, the degree of applicability of data to a particular system, and the degree of homogeneity of the data.

1. Neighboring Operations Personnel

Two of the proposed requirements in § 450.101 that do not exist in the current regulations carve out separate individual and collective risk criteria for neighboring operations personnel. With the increase in operations and launch rate, the Air Force, NASA, and the industry have expressed concerns about the FAA's public risk criteria because in certain circumstances they force an operator to clear or evacuate any other launch operator and its personnel not involved with a specific FAA-licensed operation from a hazard area or safety clear zone during certain licensed activities.[33] The clearing or evacuation of other launch operator personnel, which can range from a handful of workers to over a thousand for a significant portion of a day, results in potential schedule impacts and lost productivity costs to other range users. These impacts will increase as the launch tempo increases and similar operations are conducted at other sites.

The Air Force, NASA, and industry have recommended that the FAA treat certain personnel of other launch operators, referred to in this proposed rulemaking as ''neighboring operations personnel,'' differently than the rest of the public who are typically visitors, tourists, or people who are located outside a launch site and are not aware of the hazards nor trained and prepared to respond to them. Specifically, they recommend that the FAA characterize neighboring operations personnel who work at a launch site as either non-public or subject to a higher level of risk than the rest of the public, to minimize the need to evacuate them during certain licensed operations.[34]

The ARC recommended: (1) Excluding permanently badged personnel and neighboring launch operations from the definition of ''public''; (2) revising the definition of ''public safety'' because the current definition is overly broad, ambiguous, and inconsistent with other federal agencies, including the Air Force; (3) distinguishing between ''public'' (*i.e.,* those uninvolved individuals located outside the controlled-access boundaries of a launch or reentry site or clustered sites within a defined Federal or private spaceport) and people who work regularly within the controlled-access boundaries of a Federal or private spaceport or an operator's dedicated launch or reentry site; [35] and (4) employing mitigation measures for uninvolved neighboring operations personnel when a hazardous operation or launch is scheduled.[36]

i. FAA Proposed Definitions of Public and Neighboring Operations Personnel in § 401.5

To address these concerns, the FAA proposes to add two definitions to § 401.5. The first is ''public,'' which the FAA would define in § 401.5, for a particular licensed or permitted launch or reentry, as people and property that are not involved in supporting the launch or reentry. This would include those people and property that may be located within the launch or reentry site, such as visitors, individuals providing goods or services not related to launch or reentry processing or flight, and any other operator and its personnel. This language is similar to the current definition of ''public safety'' in § 401.5, which the FAA proposes to delete, except that the FAA has included reentry and permitted activities in the definition.[37]

The second is the definition of ''neighboring operations personnel,'' which the FAA would define in § 401.5 as those members of the public located within a launch or reentry site, as determined by the Federal or licensed launch or reentry site operator,[38] or an adjacent launch or reentry site, who are not associated with a specific hazardous licensed or permitted operation currently being conducted but are required to perform safety, security, or critical tasks at the site and are notified of the hazardous operation. While neighboring operations personnel would still fall under the proposed definition of public, this proposal would apply different individual and collective risk criteria to them. The FAA seeks comment on this approach.

In developing its proposal, the FAA looked to NASA and Air Force requirements, which treat a portion of the public differently than the FAA regulations by allowing some other launch operators and their personnel, referred to as ''neighboring operations personnel'' by the Air Force [39] and

[33] To illustrate the problematic nature of the current risk requirements as they are applied to the public, flybacks and landings of reusable boosters at Cape Canaveral Air Force Station conducted under an FAA license are causing operational impacts to other range users due to FAA requirements to clear the public, including range users not involved with the launch, to meet public safety criteria.

[34] The Air Force requested that the FAA propose an approach that allows certain neighboring operations personnel during an FAA-licensed launch to be assessed at the Air Force's higher launch essential risk criteria of 10×10^{-6} individual probability of casualty. Also, Air Force and NASA members of the CSWG have asked for increased flexibility with the collective risk E_C for flight to accommodate neighboring operations personnel. As one of its recommendations to the National Space Council in November 2017, NASA suggested a change to operational requirements to clear employees from hazard areas during commercial operations under an FAA license.

[35] According to the ARC, these individuals who work regularly within the boundaries of a federal range or private spaceport are industry workers who know and accept the risks associated with the hazardous environment in which they work.

[36] These mitigations might include: facility separation distances (*e.g.,* separation between launch points on a multi-user spaceport) that anticipate and allow for safe concurrent operations; terms in site and use agreements with the Federal or non-Federal property owner that indemnify and hold harmless the government or other landlord; and potential reciprocal waivers (not required by regulation) that may be entered into among neighboring operations to share risks of hazards to each other's property and personnel.

[37] The FAA would also delete the definition of ''public'' in § 420.5 for launch sites, which means people and property that are not involved in supporting a licensed or permitted launch. The new definition of public in § 401.5 will apply to all parts, including part 420.

[38] Since neighboring operations personnel, as defined in this proposal, work at a launch or reentry site, the FAA expects that the site operator (*i.e.,* an operator of a Federal site or FAA-licensed launch or reentry site), not the launch operator, would identify these personnel.

[39] The Air Force has two sub-categories of public: Neighboring operations personnel and the general public. For a specific launch, the general public includes all visitors, media, and other non-essential personnel at the launch site, as well as persons located outside the boundaries of the launch site. For the Air Force, neighboring operations personnel are individuals, not associated with the specific

''critical operations personnel'' by NASA,[40] to be subjected to a higher level of risk than the rest of the public. This approach lessens the impact to multiple users and enables concurrent operations at a site. The FAA's proposed definition more closely aligns with the definitions of neighboring operations personnel and critical operations personnel adopted by the Air Force and NASA, respectively, because it distinguishes neighboring operations personnel as personnel required to perform safety, security, or critical tasks and who are notified of neighboring hazardous operations. Critical tasks may include maintaining the security of a site or facility or performing critical launch processing tasks such as monitoring pressure vessels or testing safety critical systems of a launch vehicle for an upcoming mission.

Because of these specific duties, neighboring operations personnel are more likely than the rest of the public to be specially trained and prepared to respond to hazards present at a launch or reentry site. Those hazards include exposure to debris, overpressure, toxics, and fire. The Air Force and NASA definitions specify that these personnel are either trained in mitigation techniques or accompanied by a properly trained escort. Note, however, that the FAA would not require that neighboring operations personnel be trained or accompanied by a trained escort. It would be burdensome to require a licensee to ensure neighboring operations personnel are trained, and training is not necessary to justify the slight increase in risk allowed for workers performing safety, security, or critical tasks.

The FAA proposal would not include all permanently badged personnel on a launch or reentry site as neighboring operations personnel. While neighboring operations personnel are permanently-badged personnel, including all permanently-badged personnel as neighboring operations personnel could then include individuals performing routine activities such as administrative, maintenance, or janitorial duties. These individuals are not necessary for critical tasks. Unlike for neighboring operations personnel, the disruption to routine activities does not sufficiently justify allowing these individuals to remain on site during hazardous operations.

ii. Individual Risk Level for Neighboring Operations Personnel

Currently, for ELVs, the individual risk criterion for the public in § 417.107(b)(2) allows a launch operator to initiate flight only if the risk to any individual member of the public does not exceed 1×10^{-6} per launch for each hazard. Part 431 is similar for an RLV mission. Thus, any person not involved in supporting a launch or reentry, whether within or outside the bounds of the launch or reentry site, are required to have a risk of casualty no higher than 1×10^{-6} per launch or reentry for each hazard.

The FAA proposes in § 450.101(a)(2) a higher individual risk criterion of 1×10^{-5} for neighboring operations personnel compared to 1×10^{-6} for the rest of the public for launch and reentry. Although neighboring operations personnel would still fall under the FAA's definition of public, this proposal would establish a higher risk threshold for neighboring operations personnel as compared to other members of the public. This proposal would permit neighboring operations personnel to remain on site because—unlike other members of the public such as visitors or tourists—the presence of these personnel at a launch or reentry site is necessary for security or to avoid the disruption of launch or reentry activities at neighboring sites. In addition, the proposed increased risk to which these personnel would be exposed is minimal.

iii. Collective Risk Level for Neighboring Operations Personnel

Sections 417.107(b)(1) and 431.35(b)(1)(i) and (ii) currently require that for each proposed launch or reentry, the risk level to the collective members of the public, which would include neighboring operations personnel but exclude persons in water-borne vessels and aircraft, must not exceed an expected number of 1×10^{-4} casualties from impacting inert and explosive debris and toxic release associated with the launch or reentry.

Similar to individual risk, the FAA proposes a separate collective risk criterion for neighboring operations personnel in § 450.101(a)(1). This proposal would permit a launch operator to initiate the flight of a launch vehicle only if the total risk associated with the launch to all members of the public, excluding neighboring operations personnel and persons in aircraft, does not exceed an expected number of 1×10^{-4} casualties. Additionally, a launch operator would be permitted to initiate the flight of a launch vehicle only if the total risk associated with the launch to neighboring operations personnel did not exceed an expected number of 2×10^{-4} casualties. These risk criteria would also apply to reentry.

These proposed requirements would enable neighboring operations personnel to remain within safety clear zones and hazardous launch areas during flight. Additionally, neighboring operations personnel would not be required to evacuate with the rest of the public as long as their collective risk does not exceed 2×10^{-4}. The rationale is the same as that for individual risk. While the FAA proposal would add a separate collective risk limit for neighboring operations personnel, the collective risk limit for the public other than neighboring operations personnel would not be able to exceed 1×10^{-4} for flight.

iv. Maximum Probably Loss (MPL) Thresholds for Neighboring Operations Personnel

Under a license, an operator must obtain liability insurance or demonstrate financial responsibility to compensate for the maximum probable loss from claims by a third party for

operation or launch currently being conducted, required to perform safety, security, or critical tasks at the launch base, and who are notified of a neighboring hazardous operation and are either trained in mitigation techniques or accompanied by a properly trained escort. In accordance with guidance information in AFSPCMAN 91–710V1, neighboring operations personnel may include individuals performing launch processing tasks for another launch, but do not include individuals in training for any job or individuals performing routine activities such as administrative, maintenance, support, or janitorial. AFSPCMAN 91–710V1 can be found at *https://static.e-publishing.af.mil/production/1/afspc/publication/afspcman91-710v1/afspcman91-710v1.pdf.* The Air Force may allow neighboring operations personnel to be within safety clearance zones and hazardous launch areas, and neighboring operations personnel would not be evacuated with the general public. The Air Force includes neighboring operations personnel in the same risk category as launch-essential personnel. The allowable collective aggregated risk for launch essential personnel is 300×10^{-6} and the allowable individual risk for launch essential personnel is 10×10^{-6}.

[40] NASA, for the purposes of range safety risk management, defines public as visitors and personnel inside and outside NASA-controlled locations who are not critical operations personnel or mission essential personnel and who may be on land, on waterborne vessels, or in aircraft. Similar to the Air Force's definition of neighboring operations personnel, NASA considers critical operations personnel to include persons not essential to the specific operation (launch, reentry, flight) being conducted, but who are required to perform safety, security, or other critical tasks at the launch, landing, or flight facility; are notified of the hazardous operation and either trained in mitigation techniques or accompanied by a properly trained escort; are not in training for any job or individuals performing routine activities such as administrative, maintenance, or janitorial activities; and may occupy safety clearance zones and hazardous areas, and are not evacuated with the public. NASA includes critical operations personnel in the same risk category as mission essential personnel. For flight, the allowable collective aggregated risk for the combination of mission essential personnel and critical operations personnel is 300×10^{-6} and the allowable individual risk for mission essential or critical operations personnel is 10×10^{-6}.

death, bodily injury, or property damage or loss.[41] For financial responsibility purposes under 14 CFR part 440, neighboring operations personnel qualify as third parties.[42] Thus, allowing neighboring operations personnel to remain within hazard areas has the potential to increase the maximum probable loss, and therefore the amount of third party liability insurance that a licensee would be required to obtain. However, this would be fully or partially mitigated by changing the threshold value used to determine MPL for neighboring operations personnel.

The MPL is the greatest dollar amount of loss that is reasonably expected to result from a launch or reentry. Current regulations define what is reasonable by establishing probability thresholds:

- Losses to third parties that are reasonably expected to result from a licensed or permitted activity are those that have a probability of occurrence of no less than one in ten million.
- Losses to government property and government personnel involved in licensed or permitted activities that are reasonably expected to result from licensed or permitted activities are those that have a probability of occurrence of no less than one in one hundred thousand.

Therefore, for any launch or reentry, there should only be a 1 in 10,000,000 (1×10^{-7}) chance that claims from third parties would exceed the MPL value, and a 1 in 100,000 (1×10^{-5}) chance that claims from the government for government property loss would exceed the MPL value. Because it is much less likely that claims from third parties would exceed the MPL value, the FAA's calculation of MPL takes into account a larger number of rare events that could result in a third party claim than could result in a government property claim. And, because the MPL calculation for third party liability involves consideration of more events related to non-government personnel third party losses than events related to government personnel losses, non-government third party losses are more likely to influence the MPL calculation. The difference in thresholds reflects the government's acceptance of greater risk in supporting launch and reentry activities than that accepted by the uninvolved public.[43]

The FAA proposes, for the purpose of determining MPL, that the threshold for neighboring operations personnel be the same as the threshold for losses to government property and involved government personnel, such that losses to neighboring operations personnel would have a probability of occurrence of no less than 1×10^{-5}. This approach would be appropriate because unlike other third parties, except for involved government personnel, the presence of neighboring operations personnel at a launch or reentry site is necessary for security or to avoid the disruption of launch or reentry activities at neighboring sites. The presence of neighboring operations personnel during licensed activities would not influence the MPL value for third-party liability in most cases because, as discussed above, the 1×10^{-5} threshold would capture fewer events and therefore have less of an influence on MPL. The FAA seeks comment on this approach.

v. Ground Operations Pertinent to Neighboring Operations Personnel

For ground operations, the FAA currently does not have, nor is it proposing at this time, quantitative public risk criteria for neighboring operations personnel or the rest of the public. As will be discussed in greater detail later, an operator would conduct a ground hazard analysis to derive ground hazard controls. This analysis would be a qualitative, not quantitative. Thus, there would be no quantitative criteria to treat neighboring operations personnel differently than other members of the public during ground operations. An operator would be expected to use hazard controls to contain hazards within defined areas and to control public access to those areas. An operator may use industry or government standards to determine proper mitigations to protect the public, including neighboring operations personnel, from hazards. The impact on neighboring operations personnel during ground activities should be minimal.

Additionally and as discussed later, the FAA is proposing that launch would begin at the start of preflight ground operations that pose a threat to the public, which could be when a launch vehicle or its major components arrive at a U.S. launch site, or at a later point as agreed to by the Administrator.[44] Scoping preflight ground operations to only those that require FAA oversight would alleviate many of the previously-discussed issues associated with neighboring operations personnel.

2. Property Protection (Critical Assets)

Another proposed requirement in § 450.101 that does not exist in the current regulations is the proposal to adopt a critical asset protection criterion in proposed § 450.101. To better inform this proposed requirement, the FAA would also amend § 401.5 to add a definition of critical asset. Specifically, the probability of loss of functionality for each critical asset would not be able to exceed 1×10^{-3}, or a more stringent probability if the FAA determines, in consultation with relevant federal agencies, it is necessary to protect the national security interests of the United States. This requirement is necessary to ensure a high probability of the continuing functionality of critical assets. A critical asset would be defined as an asset that is essential to the national interests of the United States, as determined in consultation with relevant federal agencies. Critical assets would include property, facilities, or infrastructure necessary to maintain national defense, or assured access to space for national priority missions. Critical assets would also include certain military, intelligence, and civil payloads, including essential infrastructure when directly supporting the payload at the launch site. Under this proposal, the FAA anticipates that it would work with relevant authorities, including a launch or reentry site operator or Federal property owner, to identify each ''critical asset'' and its potential vulnerability to launch and reentry hazards.

[41] An operator must also obtain liability insurance or demonstrate financial responsibility to compensate the U.S. Government for damage or loss to government property, but this is not affected by the neighboring operations personnel proposal.

[42] Title 51 U.S.C. 50902 defines third party as a person except the U.S. Government or its contractors or subcontractors involved in the launch or reentry services; a licensee or transferee under Chapter 509 and its contractors, subcontractors or customers involved in launch or reentry services; the customer's contractors or subcontractors involved in launch or reentry services; or crew, government astronauts, or space fight participants. Section 440.3 incorporates this definition into the regulations.

[43] Subject to congressional appropriation, the Federal Government indemnifies a launch or reentry operator for claims above the insured amount up to $1.5 billion, adjusted for inflation from January 1989 (approximately $3 billion as of 2016). The lower the threshold used for calculating MPL, the greater chance that the Federal Government may need to indemnify a licensee.

[44] The clause ''as agreed to by the Administrator'' is used throughout the proposed regulations, particularly in relation to timeframes discussed in detail later in this preamble. Where the clause is used, it means that an operator may submit an alternative to the proposed requirement to the FAA for review. The FAA must agree to the operator's proposal in order for the operator to use the alternative. By whatever means the FAA's agreement to an alternative is communicated to the operator, the agreement means that the alternative does not jeopardize public health and safety and the FAA has no objection to the submitted alternative. Unless the context of the situation clearly provides otherwise, ''as agreed to by the Administrator'' does not simply mean receipt by the FAA (*i.e.,* that the item was given to a representative of the FAA and that person received it on behalf of the FAA).

The FAA's existing risk criteria, currently found in §§ 417.107(b) and 431.35(b), do not explicitly set any limit on the probability of loss of functionality for any assets on the surface of the Earth due to launch or reentry operations. An example of loss of functionality would be if a launch vehicle crashed on a nearby launch complex and resulted in damage that prevented the use of the launch complex until repaired. Currently, FAA requirements provide some protection for the safety of property during launch or reentry by limiting individual and collective risks because people are generally co-located with property. However, no protection is afforded for assets within areas that are evacuated.

The proposed property protection criteria would be consistent with current practice at Federal launch ranges. Launch operations from NASA-operated ranges are subject to requirements that limit the probability of debris impact to less than or equal to 1×10^{-3} for designated assets. While the Air Force does not have a formal requirement, in practice, launch operations from Air Force-operated ranges have adopted the NASA standard. In the past, Federal launch ranges have, on occasion, applied a more stringent requirement limiting the probability of debris impact caused by launch or reentry hazards to less than or equal to 1×10^{-4} for national security payloads, including essential infrastructure when directly supporting the payload at the launch site. The FAA is looking to extend the protection of critical assets to non-Federal launch or reentry sites. The Pacific Spaceport (located on Kodiak Island, Alaska) is an example of a non-Federal launch or reentry site that is a dual-use commercial and military spaceport (meaning that commercial missions have been conducted there, as well as missions for the Department of Defense), which has no regulatory assurance of protection from loss of functionality of critical assets.

For these reasons, the FAA has determined that a requirement to maintain a high probability of continuing functionality of critical assets at a launch site is necessary to ensure the safety of property and national security interests of the United States. Launch and reentry infrastructure used for commercial operations are increasingly in close proximity to critical assets, such as infrastructure used to support the national interests of the United States. The national interests of the U.S. relevant to this proposal go beyond national security interests, and include infrastructure used to serve high priority NASA missions as well. For example, the FAA considers launch and reentry services to deliver cargo to and from the International Space Station as national priority missions. As another example, the launch infrastructure used by SpaceX to launch the Falcon 9 from Kennedy Space Center is within 2 nm of the launch infrastructure used by ULA to launch the Atlas V, which are both used to support commercial operations and operations that serve the national interests of the United States. The FAA coordinated the development of this proposed critical asset protection requirement with NASA, the Department of Defense, and the Intelligence Community.

Furthermore, the proposed property protection requirement would also help achieve the goal of common standards for launches from any U.S. launch site, Federal or non-Federal. Common standards are public safety related requirements and practices that are consistently employed by the Air Force, the FAA, and NASA during launch and reentry activities. Common standards would provide launch and reentry operators certainty in planning and enable a body of expertise to support those standards.

Finally, the proposed property protection standards would apply to all FAA-licensed launches, whether to or from a Federal launch range or a non-Federal launch or reentry site. Applying the provision to non-Federal sites would ensure continuity in the protection of critical assets and that the probability of loss of functionality of critical assets is the same for all commercial launch and reentry operations. The FAA sees no reason for imposing different standards of safety for critical assets based on whether a launch takes place from a non-Federal launch site or from a Federal launch range, especially in light of the fact that some non-Federal sites are dual use, supporting both commercial and military operations.

During the interagency review process, the Department of Defense requested and the FAA considered specifying a more stringent criterion for certain critical assets of utmost importance. This subcategory of critical assets would be known as critical payloads. Specifically, the FAA considered requiring the probability of loss of functionality for critical payloads, including essential infrastructure when directly supporting the payload at the launch site, not exceed 1×10^{-4}. The FAA considered defining a critical payload as a critical asset that (1) is so costly or unique that it cannot be readily replaced, or (2) the time frame for its replacement would adversely affect the national interests of the United States. Critical payloads may include vital national security payloads, and high-priority NASA and NOAA payloads. For example, a payload such as NASA's Curiosity rover would likely be afforded this protection. The higher protection criterion would have safeguarded those payloads of utmost importance to the United States meriting a greater degree of protection than other critical assets. The specific 1×10^{-4} criterion would apply to those national priority payloads at a launch or reentry site, including essential infrastructure when directly supporting the payload. A federal agency would identify payloads meeting the definition of ''critical payload'' as warranting protection at the 1×10^{-4} level. These may include commercial payloads that meet the national interest described above.

The FAA opted to not include this higher protection criterion due to uncertainty about its impact on future launch or reentry operations. Therefore, in order to properly analyze this request, the FAA requests comment on the following:

(1) If the FAA adopted the more-stringent 1×10^{-4} criterion for critical payloads, what impacts would it have on your operation?

(2) Should FAA consider applying this more-stringent criterion to any commercial payload? Please provide specific examples and rationale.

(3) If this criterion is applied to commercial space launch and reentry operations, what would be the additional, incremental costs and benefits on your current and future operations compared to the proposed 1×10^{-3} criterion? Specifically, the FAA requests information and data to quantify additional costs and benefits of this criterion compared to the proposed 1×10^{-3} criterion. Please provide sources for information and data provided.

3. Consequence Protection Criteria for Flight Abort and Flight Safety System

This proposal would expand the FAA's use of consequence criteria to protect the public from an unlikely but catastrophic event. Proposed § 450.101(c) would require that operators quantify the consequence of a catastrophic event by calculating CE_C for any one-second period of flight. Unlike E_C that determines the expected casualties factoring in the probability that a dangerous event will occur, CE_C determines the expected casualties assuming the dangerous event will occur. In essence, it represents the

consequence of the worst foreseeable events during a launch or reentry. The FAA proposes to use CE_C to determine the need for flight abort with a reliable FSS as a hazard control strategy, to set reliability standards for any required FSS, and to determine when to initiate a flight abort. In other words, the more severe the potential consequences from an unplanned event, the more stringent the flight abort requirements.

The current ELV flight abort regulations are essentially a one-size-fits-all approach. In practice, the current requirement in § 417.107(a) requires an FSS for any orbital launch vehicle to prevent hazards from reaching protected areas at all times during flight. Regardless of the individual and collective risks, or the consequences in the case of a catastrophic event, all FSSs must satisfy part 417, subparts D and E, requirements.[45] These include reliability requirements (0.999 reliable at 95 percent confidence)[46] and extensive testing requirements. Besides requiring a potentially expensive FSS, the part 417 hazard control approach also has the potential to limit vehicle flight paths unnecessarily, even when those flight paths would produce low public risks and consequences. This preamble will discuss these areas in further detail later.

The FAA also recognizes shortcomings in its current part 431 hazard control approach. Part 431 does not expressly require the use of an FSS to manage hazards. Rather, § 431.35(c) requires a system safety process to identify hazards and assess the risk to public health and safety and the safety of property. The system safety approach has consistently resulted in the use of an FSS as a hazard control strategy. In practice, the FAA has applied part 417 FSS requirements to part 431 to ensure proper reliability and flight abort rules.

Part 417 FSS requirements have proven difficult to scale to different operations. Indeed, the FAA has had to issue numerous waivers to these requirements to accommodate the fast-evolving commercial space industry. The need for waivers has been partially driven by changes to Air Force requirements, which diverged from FAA regulations beginning in 2013.[47] For example, the FAA has repeatedly waived its requirement to activate an FSS to ensure no debris greater than 3 pounds per square foot (psf) ballistic coefficient[48] reaches protected areas.[49] In granting these waivers, the FAA has adopted the conditional risk management approach, noting that the predicted consequence was below a threshold of 1×10^{-2} CE_C. The FAA has concluded that measuring the consequence from reasonably foreseeable, albeit unlikely, failures is an appropriate metric to assess prudent mitigations of risks to public health and safety and the safety of property.[50]

The ARC also made recommendations with respect to flight abort and FSS requirements. It recommended the FAA tier the level of rigor for FSSs into three risk categories. In relevant part, ARC members proposed that the lowest risk category not require an FSS, that the medium risk category require streamlined FSS test requirements (*e.g.,* reduce from three to one qualification units) and not require configuration and risk management, and the highest risk category require a Range Commanders Council (RCC)[51] 319-compliant FSS. It also suggested the highest risk category could use another operational or design approach proven to address concerns of low probability/high consequence event. The ARC only identified risk as a means of scaling FSS requirements and did not recommend specific risk thresholds.[52]

In light of the shortcomings identified by the FAA and ARC recommendations, the FAA agrees that the FAA's FSS requirements should be scaled. For that reason, the FAA proposes to use consequence to determine the need for an FSS, the required FSS reliability, and when to activate an FSS.

To determine whether or not an FSS is needed, an operator would be required to calculate CE_C in any one second period of flight. The calculation of CE_C can range from a straightforward product of the effective casualty area and the population density to a high fidelity analysis.[53] Proposed § 450.101(c) would require, at a minimum, that an operator compute the effective casualty area and identify the population density that would be impacted for each reasonably foreseeable vehicle response mode in any one-second period of flight in terms of CE_C. The casualty area, population density, and predicted consequence for each vehicle response mode are intermediate quantities that are necessary to demonstrate compliance with the individual and collective risk criteria currently, thus these new requirements would not necessarily impart significant additional burden on operators.

The FAA is proposing to rely on CE_C rather than E_C to determine whether or

[45] Part 417 sets specific FSS requirements covering general command control system requirements, command control system testing, FSS support systems, FSS analysis, and flight safety crew roles and qualifications.

[46] Section 417.309 requires that each onboard flight termination system and each command control system must have a predicted reliability of 0.999 at the 95 percent confidence level when operating, as well as predicted reliability of 0.999 at the 95 percent confidence for multiple component systems such as the ordnance train to propagate a charge, any safe-and-arm device, and ordinance interrupters and initiators. As these component systems define the reliability of the FSS and approximate the design reliability of the entire flight safety system, for the purpose of the preamble the current requirements are discussed as requiring an FSS to have predicted reliability of 0.999 at a 95 percent confidence level. This will be discussed later in the preamble in further detail.

[47] The FAA regulations and Air Force requirements regarding flight abort were virtually identical from the time part 417 was promulgated in 2006 until 2013 when the Air Force provided permanent relief from the requirement for impact limit lines to bound where debris with a ballistic coefficient greater than 3 pounds per square foot can impact if the FSS works properly. The Air Force cited an ELOS determination when it issued the permanent relief, stating that the public risk criteria would still apply.

[48] Ballistic coefficient is a measure of an object's ability to overcome air resistance, and it is defined as the gross weight in pounds divided by the frontal area of the vehicle (in square feet) times the coefficient of drag.

[49] *Waiver of Debris Containment Requirements for Launch.* 81 FR 1470, 1470–1472 (January 12, 2016).

[50] Using consequence as safety criteria in FAA commercial space regulations is not without precedent. Section 431.43(d) sets a limit for foreseeable public consequences in terms of CE_C, but only for an unproven RLV. Section 431.43(d) provides that an unproven RLV may only be operated so that during any portion of flight, the expected number of casualties does not exceed 1×10^{-4} given assuming a vehicle failure will occur at any time the instantaneous impact point is over a populated area.

[51] The Range Commanders Council addresses the common concerns and needs of operational ranges within the United States. It works with other government departments and agencies to establish various technical standards to assist range users.

[52] ARC Report at p. 12.

[53] The FAA referenced the need to prevent a high consequence event in its evaluation of a 2016 waiver request, which enabled the first Return to Launch Site (RTLS) mission (Orbcomm-2). Specifically, the FAA noted that the 3 psf ballistic coefficient requirement of § 417.213(d) was intended to (1) capture the current practice of the U.S. Air Force, (2) provide a clear and consistent basis to establish impact limit lines to determine the occurrence of an accident as defined by § 401.5, and (3) help prevent a high consequence to the public given FSS activation. As part of the waiver rationale, the FAA cited the longstanding governing principle applied to launch safety: ''to provide for the public safety, the Ranges, using a Range Safety Program, shall ensure that the launch and flight of launch vehicles and payloads present no greater risk to the general public than that imposed by the over-flight of conventional aircraft.'' (Eastern and Western Range 127–1, Range Safety Requirements, Oct. 31, 1997) The waiver rationale also cited an analysis of 30 years of empirical evidence provided by the NTSB that showed that the public safety consequence associated with general aviation accidents is 1×10^{-2} expected fatalities. The FAA's analysis demonstrated that the consequence of events that could produce debris outside of the impact limit lines was consistent with the threshold of 1×10^{-2} CE_C, even with input data corresponding to the worst-case weather conditions. Thus, the FAA concluded that the waiver would not jeopardize public health and safety or the safety of property.

not an FSS is needed because FAA believes it is the best approach to implement the ARC's recommendation that the FAA treat high consequence events differently than lower consequence events. As noted earlier, the ARC recommended a three tiered approach—high risk would require a highly reliable FSS, medium risk would require an FSS with more streamlined requirements, and low risk would require no FSS. The FAA's approach of using a consequence analysis instead of a risk analysis would use the same factors as used in a risk analysis, such as casualty area, population density, and predicted consequence for each vehicle response.

Proposed § 450.145 (Flight Safety System), in paragraph (a), would require an operator to employ an FSS with design reliability of 0.999 at 95 percent confidence and commensurate design, analysis, and testing if the consequence of any vehicle response mode is 1×10^{-2} CE_C or greater, consistent with the current FSS requirements in part 417.[54] If the consequence of any vehicle response mode is between 1×10^{-2} and 1×10^{-3} CE_C, the required design reliability would be relaxed to no lower than 0.975 at 95 percent confidence [55] with commensurate design, analysis, and testing requirements necessary to support this reliability. If the CE_C is less than 1×10^{-3}, and the individual and collective risk criteria are met, an operator would not be required to have an FSS. The FAA coordinated with NASA and the Department of Defense in the Common Standards Working Group to arrive at this proposal.

An RCC 319-compliant FSS would only be required for any phase of flight in which the CE_C exceeds 1×10^{-2}. This threshold is consistent with past precedent, FAA waivers, and U.S. Government consensus standards. Other government entities use a consequence threshold of 1×10^{-2} to protect against explosive hazards.[56] This threshold is also rooted in the longstanding and often cited principle that launch and reentry should present no greater risk to the public than that imposed by the over-flight of conventional aircraft. The Air Force, the RCC, and an American National Standard (ANSI/AIAA S–061–1998) [57] [58] have identified the public risks posed by conventional aircraft as an important benchmark for the acceptable risks posed by launch vehicles. Like commercial space operations, civil aviation poses an involuntary hazard to the public on the ground. Therefore, the FAA looked to this risk to the public on the ground to derive consequence limits for commercial space activities. The FAA analyzed National Transportation Safety Board (NTSB) aviation accident data and determined that the average consequences on the ground from all fatal civil aviation accidents are 0.06 casualties and 0.02 fatalities. The average ground fatality of an airline crash is 1, and of a general aviation crash is 0.01.[59] The proposed threshold appears reasonable given this range of aviation related accident consequences.

The FAA proposes a threshold of 1×10^{-3} CE_C as a metric for determining the need for any FSS. This is an order of magnitude less than the threshold that determines the need for a highly-reliable FSS, and which is scaled to the reliability of the required FSS. Combined with the individual risk and cumulative risk thresholds, the FAA believes that this proposed threshold would ensure public safety.

The use of a consequence metric is consistent with the ARC comments. The ARC suggested that an FSS with a reliability of 0.999 at 95 percent confidence is appropriate for high consequence, low probability events and a lower reliability could be acceptable under the right circumstances. The FAA notes that the ARC did not identify any threshold values to define ''high consequence''; however, the proposal does identify specific quantitative consequence thresholds in terms of CE_C. The FAA invites comments on this approach in general, as well as the specific thresholds proposed.

Lastly, proposed § 450.125 (Gate Analysis), in paragraph (c), would limit the predicted average consequence from flight abort resulting from a failure in any one-second period of flight to 1×10^{-2} CE_C. Flight abort will be discussed in more detail later in the preamble.

B. System Safety Program

Proposed § 450.103 (System Safety Program) would require an operator to implement and document a system safety program throughout the lifecycle of a launch or reentry system that includes at least the following: (1) Safety organization, including a mission director and safety official; (2) procedures to evaluate the operational lifecycle of the launch or reentry system to maintain current preliminary safety assessments and any flight hazard analyses; (3) configuration management and control; and (4) post-flight data review. Due to the complexity and variety of vehicle concepts and operations, a system safety program would be necessary to ensure that an operator considers and addresses all risks to public safety.

Currently, parts 415 and 417 have a more prescriptive philosophy of flight safety hazard mitigation. While the requirements ensure safety, they neither provide the flexibility needed to address the diverse and dynamic nature of today's commercial space transportation industry nor address the unique aspects of non-traditional launch and reentry vehicles. For example, except for unguided suborbital launch vehicles, it is virtually impossible for operations that can reach populated areas but that do not use an FSS to comply with parts 415 and 417.

Regulations applicable to reentry and RLVs in part 431 expressly established system safety requirements as a flexible approach to approving a safety process that encompasses design and operation. Section 431.33 sets the requirements for the maintenance and documentation of a safety organization. Specifically, it requires: (1) The identification of lines of communication and approval authority for all mission decisions possibly affecting public safety including internal and external lines of communication with the launch or reentry site to ensure compliance with required plans and procedures; (2) the designation of a person responsible for conducting all licensed RLV mission activities; and (3) designation of a qualified safety official by name, title, and qualifications.

[54] Sections 417.303 and 417.309.

[55] In statistics, a confidence interval is the range of values that includes the true value at a specified confidence level. A confidence level of 95% is commonly used which means that there is a 95% chance that the true value is encompassed in the interval.

[56] The Department of Defense, NASA, and the FAA use quantity-distance limits originally designed to limit conditional individual risk of fatality to 1×10^{-2} from inert debris fragment impacts. They define minimum separation distances between potential sources of high speed fragments (propelled by accidental explosions) and areas with exposed personnel to ensure no more than one hazardous fragment impact per 600 sqft, with the assumption that any exposed person has a vulnerable area of 6 sqft. NASA only permits inhabited buildings at closer distances if proved sufficient to limit hazardous debris to 1/600 sqft, and thus enforces a consequence limit of no more than 1×10^{-2} conditional expected fatalities (NASA–STD–8719.12A—2018–05–23, p. 63).

[57] *Waiver of Debris Containment Requirements for Launch.* 81 FR 1470 (January 12, 2016), at 1470–1472.

[58] According to ANSI/AIAA S–061–1998, ''during the launch and flight phase of commercial space vehicle operations, the safety risk for the general public should be no more hazardous than that caused by other hazardous human activities (*e.g.,* general aviation over flight).''

[59] The FAA looked at NTSB data on injuries and fatalities of people on the ground from fatal civil aviation accidents (where an occupant of the aircraft died) for the 30-year period between 1984 and 2013.

Section 431.35(c) specifically requires the use of a system safety process to identify hazards and assess the risks to public health and safety and the safety of property and to demonstrate compliance with the acceptable risk criteria.[60] It also incorporates core components of a hazard analysis.

Section 431.35(d) requires several deliverables to demonstrate compliance with acceptable risk criteria and a compliant system safety process. Despite the explicit deliverables, the structure of the regulation has proved to be confusing for applicants. For instance, some system safety analysis element requirements are intermixed with vehicle design element requirements. Similarly, general information requirements such as the identification of hazardous material can be found listed with unrelated requirements such as the description of the RLV. The inclusion of these elements in the section governing system safety has led applicants to produce application deliverables that were scattered and not easily understood by the FAA. Also, some less experienced applicants did not understand that the regulation required a system safety analysis and provided general information and an informal assessment of how that general information may have affected public safety.

The ARC made specific suggestions on the role of system safety in the FAA's safety regulatory scheme. It recommended the FAA use a system safety process at the core of its safety requirements to identify hazards and develop hazard control strategies that are verified by means of an FSA, relevant operational constraints, and means of meeting those constraints. It noted the FAA could provide better detail on its safety requirements. For instance, § 431.35(c) could be expanded to include risk-informed decision making and continuous risk management requirements. It further suggested the FAA incorporate varying levels of rigor that would scale required verification requirements, like test plans and performance results, by vehicle, operator category, and relative risk as a means of scoping requirements to vehicle hazards and potential population exposure. The FAA agrees that the system safety process should form the core of its safety requirements as a means of making the safety requirements more flexible for novel operations and processes.

Proposed § 450.103 lists the minimum components all operators would be required to have in their system safety programs to protect public health and safety and the safety of property. Part 431 established a process-based requirement for a system safety program but did not define its components or a safety standard. This lack of definition has led to many operators establishing system safety programs that are missing components necessary for public safety. This lengthened some applicants' pre-application consultation and the license application evaluation process. The FAA intends to further define the system safety program to lessen the potential for misunderstandings between applicants and the FAA. This proposal should allow potential operators to design system safety programs that better address public safety concerns prior to license application submittal.

1. Safety Organization

Proposed § 450.103(a) would require an operator to maintain and document a safety organization with clearly defined lines of communication and approval authority for all public safety decisions. This safety organization would include at least two positions, referred to as a mission director and a safety official. The mission director would be responsible for the safe conduct of all licensed activities and authorized to provide final approval to proceed with licensed activities. The safety official[61] would be required to communicate potential safety and non-compliance matters to the mission director during flight and ground operations. The safety official would also be authorized to examine all aspects of an operator's ground safety and flight safety operations. It is common practice in any safety organization, including those within the commercial space industry, to establish who will be responsible for ensuring safety and to have clear processes for communicating safety concerns effectively throughout the organization.

This proposal would allow for one person, or several, to perform the safety official's functions. Unlike current regulations, an operator would not have to name a specific safety official in its license application. Instead, an operator would be required to designate a position to accomplish the necessary tasks of a safety official. The FAA seeks comment on this approach, and whether it provides an appropriate level of flexibility to industry.

Many operators have complained about the burden of naming a specific safety official in a license application. One challenge is that, in many cases, an operator applies for a license before selecting a safety official. As such, many operators must submit a modification of their application once they have chosen a safety official. Another issue is that operators that conduct activities at a frequent rate must employ several persons that serve as safety officials to keep pace with their operations. These persons may serve as safety officials on several different types of operations on multiple licenses. Therefore, the operator must frequently submit license application modifications every time it selects a new person to serve in that capacity. An operator is further burdened when safety officials leave the launch operator's organization or assume a new role within the organization that would prohibit them from serving as a safety official. The FAA believes a safety organization that includes a safety official is essential to public safety; however, identifying that individual by name is not necessary.

Under the proposal, the operator would still be required to designate a safety official for any licensed activity prior to the start of that activity. The FAA has previously noted that licensed ground operations have commenced without designating a safety official. Many applicants mistakenly assumed the safety official was only necessary for flight operations. These operators conducted preflight ground operations in advance of flight without a safety official monitoring the operation. This proposal would require a safety official for all licensed operations to independently monitor licensed activity to ensure compliance with the operator's safety policies. Additionally, the safety official would report directly to the mission director. The absence of a safety official could result in a lack of independent safety oversight and a potential for a break down in communications of important safety-related information. The FAA would continue to inspect licensed operations

[60] Section 431.35(c) also fails to provide a detailed description of the composition of a compliant system safety process. This lack of detail has often led to the submission of deficient applications because the applicant failed to demonstrate that the system safety process was adequate to meet public safety requirements and therefore the FAA did not find the application to be complete enough for acceptance. The ARC noted the confusion around the FAA's evaluation of an application's system safety submission and recommended changing the regulation to increase regulatory certainty.

[61] In 1999, the FAA added the requirement for a safety official possessing authority to examine launch safety operations and to monitor independently personnel compliance with safety policies and procedures. The FAA stated in the preamble to the final rule that the person responsible for safety should have the ability to perform independently of those parts of the applicant's organization responsible for mission assurance. 64 FR 19604 (April 21, 1999).

to ensure that a safety official is in place throughout the course of the licensed activity.

2. Procedures

Proposed § 450.103(b) would require that an operator establish procedures to evaluate hazards throughout the complete operational lifecycle of a program. This is important because design and operational changes to a system can have an impact on public safety. This proposed requirement was implied in § 431.35(c) but was not explicitly stated. Specifically, § 450.103(b) would require the operator to implement a process to update the preliminary safety assessment and any flight hazard analysis to reflect the knowledge gained during the lifecycle of the system. To accomplish this, an operator would be required to establish methods to review and assess the validity of the preliminary safety assessment and any flight hazard analysis throughout the operational lifecycle of the launch or reentry system. An operator would also need to have methods for updating the assessment or analysis, and to communicate the updates throughout its organization. For any flight hazard analysis, an operator would also have to have a process for tracking hazards, risks, mitigation and hazard control measures, and verification activities.

3. Configuration Management and Control

Proposed § 450.103(c) would lay out configuration management and control requirements. The FAA has chosen to consolidate configuration management and control requirements within the system safety program requirements. Requirements addressing configuration control were previously scattered throughout the regulations, including in §§ 417.111(e), 417.123(e)(2), 417.303(e), and 417.407(c). Operators frequently make changes to their vehicles, such as new manufacturing techniques for a component or changes to the materials on key structures. Operators may also make operational changes such as new analysis techniques, automating processes that were previously conducted by personnel, or changing the surveillance techniques in hazard areas. These types of changes can have significant impacts on public safety.

This proposal would require an operator to track configurations of all safety-critical systems and documentation, ensure the correct and appropriate versions of the systems and documentation are used, and maintain records of system configurations and versions used for each licensed activity. The FAA expects that an operator would design configuration management and control into its operations. The FAA also expects that an operator would provide the capability to both alert responsible individuals when key documentation must be updated and ensure that all stakeholders—internal and external to the launch operator's organization—are using current and accurate information.

4. Post-Flight Data Review

Proposed § 450.103(d) would require that an applicant conduct a post-flight data review. The proposed requirements in § 450.103(d) are not explicitly contained in part 415, 417 or 431. However, it is industry practice to review post-flight data to address vehicle reliability and mission success, so any added burden from proposed § 450.103(d) would be minimal. Operator review of post-flight data provides valuable safety information on future operations, particularly the identification of anomalies. At a minimum, proposed § 450.103(d)(1) would require that an operator employ a process for evaluating post-flight data to ensure consistency between the assumptions used for the preliminary safety assessment, any flight hazard or flight safety analysis, and associated mitigation and hazard control measures.

Proposed § 450.103(d)(2) would require that an operator resolve any inconsistencies identified in proposed § 450.103(d)(1) prior to the next flight of the vehicle. The FAA expects that the operator would address any inconsistencies by updating analyses using the best available data for the upcoming mission, or documenting the rationale explaining how changes to the data inputs would not have an impact on the results of the analysis for a proposed mission. The FAA would add this requirement to ensure that the operator makes all appropriate updates to the analysis identifying all public safety impacts in order to avoid inconsistencies in future missions that could jeopardize public safety.

Proposed § 450.103(d)(3) would require that an operator identify any anomaly that may impact the flight hazard analysis, flight safety analysis, safety critical system, or is otherwise material to public safety and safety of property. An examination and understanding of launch or reentry vehicle system and subsystem anomalies throughout the lifecycle of the vehicle system can alert an operator of an impending mishap. An operator should review post-flight data to identify unexpected issues or critical systems that are operating outside of predicted limits. Flight safety systems are examples of safety-critical systems that could jeopardize public safety if they do not perform nominally.

Proposed § 450.103(d)(4) would require an operator to address any anomaly identified in proposed § 450.103(d)(3). Prior to the next flight, an operator would be required to address each anomaly by, at a minimum, updating any flight hazard analysis, flight safety analysis, or safety critical system.

The FAA seeks comment on whether proposed § 450.103(d) would change an operator's approach to reviewing post-flight data.

5. Application Requirements

Proposed § 450.103(e) would set the system safety program application requirements. An applicant would be required to provide a summary of how it plans to satisfy the system safety program requirements. It is currently common practice for applicants to provide the FAA with a system safety program plan or documents containing the necessary information to determine compliance with the system safety program requirements in § 431.35(c). A system safety program plan that covers the elements in § 450.103(e) would satisfy the proposed application requirements. The FAA also recommends an applicant consult with the FAA during the development of its system safety program prior to implementation.

With respect to the safety organization, an applicant would be required to describe the applicant's safety organization, identifying the applicant's lines of communication and approval authority, both internally and externally, for all public safety decisions and the provision of public safety services. In the past, many applicants have chosen to provide an organization chart depicting the safety organization. The FAA encourages the continuation of this practice. However, the applicant would be required to provide a sufficient narrative describing the organization, particularly the lines of communication. For example, if an engineer in the safety organization becomes aware of a hazard, the applicant should describe how that engineer would communicate that hazard to the safety official.

An applicant would also be required to provide a summary of the processes and products identified in the system safety program requirements. The FAA expects that processes would be scalable based on the size of the operation or the potential public safety impacts of the proposed operation. For example, an

applicant with a dozen employees and a relatively small launch or reentry vehicle may use meetings or less formal ways to develop its preliminary hazard list. However, an applicant with a larger vehicle operating from multiple sites and hundreds of employees would need a more formal means of tracking information and developing the required analyses.

C. Preliminary Safety Assessment for Flight

Under proposed § 450.105 (Preliminary Safety Assessment for Flight), every operator would be required to conduct and document a preliminary safety assessment (PSA) for the flight of a launch or reentry vehicle. The PSA would identify operation-specific information relevant to public safety and would help the operator scope the analyses that must be conducted to ensure that the operation satisfies the public safety criteria in proposed § 450.101. An operator could use the knowledge obtained from the PSA to identify the effect of design and operational decisions on public safety and thus determine potential hazard control strategies. The products of the PSA are consistent with products that are currently produced for preliminary flight safety analyses and preliminary system safety analyses. The PSA will allow operators to quickly identify and demonstrate the hazard control strategy appropriate for their proposed operation.

The FAA intends the PSA to be a top-level assessment of the potential public safety impacts identifiable early in the design process. This assessment should be broad enough that minor changes in vehicle design or operations would not have a significant impact on, or invalidate the products produced by, the PSA. At the same time, the PSA should be detailed enough to identify the public safety and hazard control implications associated with key design trade studies. The FAA recommends that an operator perform an initial PSA at the outset of the design phase of a proposed operation. Thereafter, the operator should update the assessment as needed in accordance with the launch operator's established procedures to evaluate the complete operational lifecycle of a launch or reentry system. The results of the PSA would provide the operator with an appropriate hazard control strategy for its proposed operation.[62]

Under proposed § 450.105(a), an acceptable PSA would identify at least the following key elements: (1) The vehicle response modes; (2) the types of hazards associated with the vehicle response modes; (3) the geographical area where the public may be exposed to a hazard; (4) the population of the public exposed to the hazard; (5) the CE_C; (6) a preliminary hazard list which documents all causes of vehicle response modes that, excluding mitigation, have the capability to create a hazard to the public; (7) safety-critical systems; and (8) the timeline identifying all safety critical events. The FAA expects that an operator would use many of these PSA elements in subsequent analyses. For instance, population data, vehicle response modes, and the associated effects are part of a valid quantitative risk analysis. These items could also be useful for a flight hazard analysis.

A vehicle response mode is a mutually exclusive scenario that characterizes foreseeable combinations of vehicle trajectory and debris generation. Examples include on-trajectory explosion, on-trajectory loss of thrust, and tumble turns. The types of hazards associated with any vehicle response mode can include inert and explosive debris, overpressure, and toxics. By understanding the potential vehicle response modes and the hazards associated with those vehicle response modes, an operator can then determine the geographical areas where the public may be exposed to a hazard. This information, along with the population of the public exposed to the hazard, would allow an operator to begin to characterize the potential risk during any particular phase of flight. Calculating CE_C as discussed earlier, is important to understand the need for an FSS and its required reliability. All of these elements, which comprise § 450.105(a)(1) through (5), are important to develop hazard control strategies.

Proposed § 450.105(a)(6) would require an operator to produce a preliminary hazard list. The operator would be required to review the operation to determine what hazards exist in order to generate the preliminary hazard list. This assessment is different from the quantitative risk analysis and is meant to give an operator an understanding of how public safety is affected at the subsystem or component level of the operation. An operator should use common system safety tools such as Fault Trees, Failure Modes and Effects Analyses (FMEA), safety panels, and engineering judgement to develop the preliminary hazard list.

An operator should describe hazards in terms that identify each potential source of harm, the mechanism by which the harm may be caused, and the potential outcome if the harm were to remain unaddressed.[63] The operator should ensure that the hazard is described in enough detail so that the safety critical personnel within the operator's organization would be able to review the hazard and easily ascertain the source, mechanism, and the public safety-related outcome of the hazard. In developing the preliminary hazard list, an operator would not be required to assess the risk associated with each hazard or potential mitigation measures. These items would be determined in the flight hazard analysis, if required, as discussed in the ''Flight Hazard Analysis'' section of this preamble.

When developing the preliminary hazard list, the operator would also be required to address items that are not specific to the vehicle hardware but necessary for the launch or reentry system. These items would include things like human factors, training, and other operational concerns.

The FAA believes the preliminary hazard list is critical as the regulatory approach changes from narrowly prescribed methods to performance-based standards that focus on the applicant demonstrating safety through system safety management and engineering. As the industry moves toward to a more performance-based regime, there is a growing need for operators to produce the analyses specific to their unique operations in order to ensure public safety and detail the appropriate hazard mitigation strategies for their proposed operation. Additionally, an operator that makes changes to its operation could potentially move from a regulatory pathway that does not require a hazard analysis to one that does. The existence of a preliminary hazard list should alleviate some of the existing burdens on operators by requiring only those analyses necessary to ensure the safety of a particular operation.

It would also more quickly facilitate analyses demonstrating public safety, thus creating the potential for operational changes closer to flight of the vehicle. For example, consider an operation where a flight hazard analysis

[62] As mentioned previously and discussed in greater detail in the next section, traditional hazard controls include physical containment, wind weighting, or flight abort.

[63] For example, a potential source of harm could be a leak in a rocket engine fuel system line caused by a manufacturing defect, overpressure, or improper installation. The mechanism for harm could be a fire resulting from that leak. The outcome could be loss of the vehicle with impact on population.

was unnecessary because of the use of an FSS under proposed § 450.145(a)(1). In that case, a change in FSS design, testing or qualification, or disabling the abort system during some phases of flight, could result in the need for a flight hazard analysis. Because the operator would be required to generate a preliminary hazard list, it would already have the initial step of the flight hazard analysis completed, excluding any impacts of the change. The operator would then be required to complete the final steps of the hazard analysis to complete its safety documentation.

Proposed § 450.105(a)(7) would require an operator to identify safety-critical systems. A safety critical system would be a system that is essential to safe performance or operation. A safety-critical system, subsystem, component, condition, event, operation, process, or item, is one whose proper recognition, control, performance, or tolerance, is essential to ensuring public safety. It is important for an operator to clearly identify safety critical systems because many requirements in proposed part 450 relate to these systems.

Proposed § 450.105(a)(8) would require an operator to identify a timeline identifying all safety critical events. This timeline is important to identify the potential public safety consequences during any particular phase of flight.

Proposed § 450.105(b) would set the PSA application requirements. The applicant would be required to provide the results of the preliminary safety assessment in its application. The applicant would be required to provide information for every requirement listed under § 450.105(a). These application requirements are consistent with those currently in part 431. Although these specific system safety requirements would be new for ELV operators, the FAA does not expect they would add a substantial burden given that part 417 operators were performing similar work, albeit not under the system management umbrella. ELV operators must already identify vehicle failure modes; debris, toxics, distant-focusing overpressure, and other hazards; geographical containment and overflight trajectories; consequences that determine flight limits; and all safety critical systems and events. The PSA codifies these concerns as primary to safety and the development of hazard control strategies and requires all vehicle operators to document such considerations.

Development of the PSA would allow the operator to determine whether they must perform a flight hazard analysis. The operator would be required to assess each phase of flight to determine how public safety hazards are mitigated. If there is a phase of flight where all identified public safety hazards are not mitigated using physical containment, wind weighting, or flight abort, the operator would be required to perform a flight hazard analysis, discussed later in this preamble, for that particular phase of flight.

D. Hazard Control Strategy

Proposed § 450.107 (Hazard Control Strategies) would provide options for hazard control strategies that an operator could use to meet the public safety criteria in proposed § 450.101 for each phase of a launch or reentry vehicle's flight. An operator could use physical containment, wind weighting, or flight abort and would not be required to conduct a flight hazard analysis. Alternatively, an operator could conduct a flight hazard analysis to derive hazard controls. As part of its application, an operator would be required to identify the selected hazard control strategy for each phase of flight.

The use of a flight hazard analysis to derive hazard controls provides the most flexibility of any of the hazard control strategies. The ARC recommended this approach and stated that the system safety process should be used to identify hazards and develop control strategies, which would then be verified by means of flight safety analysis and relevant operational constraints and means of meeting those constraints.[64] In certain circumstances, however, historical methods may also provide an acceptable level of safety. If the public safety hazards identified in the preliminary safety assessment can be mitigated adequately to meet the public safety requirements of proposed § 450.101 using physical containment, wind weighting, or flight abort with a highly reliable FSS, an operator would not need to conduct a flight hazard analysis for that phase of flight. This proposal is different than current regulations, where the option of conducting a hazard analysis to derive hazard controls is only available to reusable launch vehicles. Under proposed part 450, the option to use a flight hazard analysis would not rest on whether a vehicle is expendable or reusable.

Under proposed § 450.107(b), an operator could use physical containment to satisfy the public safety requirements of proposed § 450.101 when an operator's launch vehicle does not have sufficient energy for any hazards associated with its flight to reach an area where it exposes the public or critical assets to a hazard. These launches can take place from any launch site, depending on the size of the launch vehicle, the expected trajectory, and other factors. The more remote a launch site is, the greater its capacity to accommodate a launch using physical containment.

This approach is consistent with current practice because the FAA has always accepted a demonstration of physical containment as a means of satisfying risk requirements. The use of physical containment as a hazard control strategy is the easiest way to meet the public safety requirements of proposed § 450.101 and may, in a remote location, involve a simple showing that the maximum distance vehicle hazards can reach defines an area that is unpopulated and does not contain any critical assets. Because physical containment precludes the need for an FSS, an operator would not be required to meet any requirements relevant to an FSS. If an operator shows its vehicle does not have sufficient energy for any of its associated hazards to reach outside the flight hazard area, the operator would not have to perform a flight hazard analysis. Further, many other requirements would be either not applicable or easily met. Because physical containment may also involve visitor control, wind constraints, real-time toxic analysis, and other mitigation measures, the FAA would require an operator to apply other mitigation measures to ensure no public exposure to hazards, as agreed to by the Administrator on a case-by-case basis.

Under proposed § 450.107(c), an operator could use wind weighting to satisfy the public safety requirements of proposed § 450.101 when an operator uses launcher elevation and azimuth settings to correct for wind effects that an unguided suborbital launch vehicle, typically called a sounding rocket, would experience during flight. Due to its relative simplicity and effectiveness, wind weighting has historically been used by NASA, the Department of Defense, and commercial operators as the primary method to ensure public safety for the launch of a sounding rocket. This approach is currently codified in part 417. Under part 431, an operator can use wind weighting as an acceptable hazard mitigation measure determined through the system safety process. Under proposed part 450, an operator launching a sounding rocket could use wind weighting or it could propose other hazard controls in its application through a flight hazard analysis. The specific wind weighting requirements are discussed in the

[64] ARC Report at p. 10.

''Additional Technical Justification and Rationale'' section.

Under proposed § 450.107(d), an operator could use flight abort to satisfy the public safety requirements of proposed § 450.101 when an operator limits or restricts the hazards to the public or critical assets presented by a launch vehicle or reentry vehicle, including any payload, while in flight by initiating and accomplishing a controlled ending to vehicle flight, when necessary. This is discussed in more detail in the ''Flight Abort'' section.

If the public safety hazards identified in the preliminary safety assessment cannot be mitigated adequately to meet the public risk criteria of proposed § 450.101 using physical containment, wind weighting, or flight abort, an operator would be required to conduct a flight hazard analysis in accordance with proposed § 450.109 (Flight Hazard Analysis) to derive hazard controls for that phase of flight. The use of a flight hazard analysis to derive hazard controls is the primary approach used in current parts 431, 435, and 437. The FAA has previously required the use of a flight hazard analysis for reentry, for the captive carry portion of an air-launched vehicle, and for piloted suborbital vehicles. A detailed discussion of flight hazard analysis is included later in this preamble.

In its application, an applicant would be required to describe its hazard control strategy for each phase of flight. An applicant may elect to use different hazard control strategies for different phases of flight, depending on risks associated with those phases. For example, an applicant using an air-launched system might use a flight hazard analysis during the captive carry phase of flight, and flight abort during the rocket-powered phase of flight. Additionally, if using physical containment as a hazard control strategy, an applicant would be required to demonstrate that the launch vehicle does not have sufficient energy for any hazards associated with its flight to reach outside the flight hazard area. The applicant would also be required to describe the methods used to ensure that flight hazard areas are cleared of the public and critical assets.

E. Flight Abort

As discussed earlier, flight abort is a hazard control strategy to limit or restrict the hazards to the public or critical assets presented by a launch vehicle or reentry vehicle, including any payload, while in flight. Flight abort is a controlled ending to vehicle flight and is initiated by an operator when ending flight poses less risk to public safety and the safety of property than continued flight without a safety intervention. Flight abort is the primary hazard control strategy used today for orbital expendable launch vehicles under part 417, and under Air Force and NASA launch range requirements.

The FAA proposes to require this approach, with a reliable FSS, only when certain conditional risks are present. Specifically, proposed § 450.101(c) would require an operator to use flight abort with an FSS that meets the requirements of § 450.145 as a hazard control strategy if the consequence of any reasonably foreseeable vehicle response mode, in any one-second period of flight, is greater than 1×10^{-3} conditional expected casualties for uncontrolled areas.[65] The basis for this number is discussed in the ''Consequence Protection Criteria for Flight Abort and Flight Safety System'' section. Under this test, a typical orbital launch from the Air Force Eastern and Western ranges would require an FSS capable of initiating flight abort. Small orbital launch vehicles launched from more remote locations, however, would not normally be required to use flight abort as a hazard control strategy. The FAA seeks comment on this approach.

To implement flight abort as a hazard control strategy, an operator would establish flight safety limits and gates in accordance with proposed §§ 450.123 (Flight Safety Limits Analysis) and 450.125, establish flight abort rules in accordance with § 450.165 (Flight Safety Rules), and employ an FSS in accordance with § 450.145 and software in accordance with § 450.111.

Flight abort as a hazard control strategy can be used by an operator, even if it is not required under § 450.101(c), as a hazard mitigation measure derived from the flight hazard analysis. For example, a piloted vehicle with low conditional expected casualty during powered flight may use an FSS in combination with other measures, such as propellant dumping, to keep vehicle hazards from reaching a populated area.

1. Flight Safety Limits and Uncontrolled Areas

An operator would have to identify the location of uncontrolled areas and establish flight safety limits that define when an operator must initiate flight abort to:

- Prevent debris capable of causing a casualty from impacting in uncontrolled areas if the vehicle is outside the limits of a useful mission, and
- Ensure compliance with the public safety criteria of § 450.101.

The FAA would define debris capable of causing a casualty with kinetic energy or other thresholds as will be discussed later. The public safety criteria that would go into determining flight safety limits would be collective risk, individual risk, risk to critical assets, and conditional risk. An uncontrolled area would be an area of land not controlled by a launch or reentry operator, a launch or reentry site operator, an adjacent site operator, or other entity by agreement. Under current regulations, these areas are referred to as ''protected areas.'' Importantly, as discussed earlier, the conditional risk criteria would not apply to controlled areas, which are areas that are controlled by any of the entities listed earlier, because by exercising control over these areas the entity would have a greater ability to ensure that catastrophic risk is mitigated by other means.

In addition to establishing flight safety limits, an operator would establish gates, if the vehicle would need to overfly a landmass during its flight. A gate is an opening in a flight safety limit through which a vehicle may fly, provided the vehicle meets certain pre-defined conditions such that the vehicle performance indicates an ability to continue safe flight. If the vehicle fails to meet the required conditions to pass a gate, then flight abort would occur at the flight safety limit. In other words, the gate would be closed.

Flight safety limits and gates are discussed in greater detail later in this preamble.

2. Flight Abort Rules

An operator would identify the conditions under which the FSS, including the functions of any flight abort crew, must abort the flight to ensure compliance with § 450.101. An operator would be required to abort a flight if a flight safety limit is violated, or if some condition exists that could lead to a violation, such as a compromised FSS or loss of data.

Flight abort rules are discussed in greater detail later in this preamble.

3. Flight Safety System

To enable flight abort, an operator must use an FSS. An FSS is an integral

[65] The proposed requirement to use flight abort as a hazard control strategy is less restrictive than § 417.107(a), which requires a launch operator to use an FSS in the vicinity of the launch site if any hazard from a launch vehicle, vehicle component, or payload can reach any protected area at any time during flight, or if a failure of the launch vehicle would have a high consequence to the public.

part of positive control of a launch or reentry vehicle because it allows an operator to destroy the vehicle, terminate thrust, or otherwise achieve flight abort to limit or restrict the hazards to public health and safety and the safety of property presented by a vehicle while in flight. Traditional FSSs are comprised of an onboard flight termination system, a ground-based command and control system, and tracking and telemetry systems. Historically, the flight safety crew monitoring the course of a vehicle would send a command to the vehicle to terminate flight if the vehicle violated a flight abort rule. Recently, operators are favoring autonomous FSSs, negating the need for a ground-based command and control system or flight abort crew.

As discussed earlier, the CE_C would establish whether an FSS is required, and if so, its reliability.

- If the consequence of any vehicle response mode is 1×10^{-2} conditional expected casualties or greater for uncontrolled areas, an operator would be required to employ an FSS with design reliability of 0.999 at 95 percent confidence and commensurate design, analysis, and testing; or
- If the consequence of any vehicle response mode is between 1×10^{-2} and 1×10^{-3}, an operator would be required to employ an FSS with a design reliability of 0.975 at 95 percent confidence and commensurate design, analysis, and testing.

Note that if the consequence of any vehicle response mode is less than 1×10^{-3}, the FAA would not require an FSS or mandate its reliability if an operator chooses to use one.

Unlike part 417, the FAA would not propose specific design or testing requirements for an FSS. Instead, the FAA would accept specified government or industry standards as meeting the FSS reliability requirements. At this time, only one government standard would meet the requirement for a design reliability of 0.999 at 95 percent confidence and commensurate design, analysis, and testing, and that is RCC 319.[66]

The FSS requirements codified in part 417, including component performance requirements and acceptance and qualification testing, were originally written to align FAA launch licensing requirements with the Federal launch range standards in RCC 319. Like part 417, RCC 319 requires qualification tests to demonstrate reliable operation in environments exceeding the expected operating environment for the system components, acceptance tests to demonstrate that the selected batch of components meets the requirements of the design specifications, and other preflight testing at the system or subsystem level to demonstrate functionality after installation.

In the short term, the FAA expects individual applicants to create their own FSS requirements based on RCC 319 and have them approved as an accepted means of compliance by the FAA prior to application submittal. This would be akin to ''tailoring'' RCC 319, which is current practice at the Federal launch ranges. In the long run, the FAA expects the industry to develop voluntary consensus standards for FSSs, particularly for those FSSs that are only required to have a design reliability of 0.975 at 95 percent confidence. By removing detailed design and testing requirements from FAA regulations and relying on standards to meet reliability thresholds, the FAA would encourage innovation in flight abort. The FAA seeks comment on whether this approach would encourage innovation and more rapid evolution of FSS designs.

F. Flight Hazard Analysis

Proposed § 450.109 would require that an operator conduct and document a flight hazard analysis and continue to maintain the flight hazard analysis throughout the lifecycle of the launch or reentry system unless an operator uses proven hazard control strategies such as physical containment, wind weighting, or flight abort. At its most basic, a flight hazard analysis identifies all reasonably foreseeable hazards and the necessary measures to eliminate or mitigate that risk. A flight hazard analysis would be required only for those phases of flight for which the operator does not employ a traditional hazard control (*e.g.,* physical containment). As noted earlier, the use of a flight hazard analysis to derive hazard controls would provide flexibility that does not currently exist under the prescriptive requirements in part 417[67] and is broadly consistent with the practice in parts 431 and 435.[68]

Proposed § 450.109(a) would require that an operator further refine the flight hazard list developed during the earlier PSA, including verifying the list of items identified in § 450.109 and any new hazards identified since completing the PSA. A hazard is a real or potential condition that could lead to an unplanned event or series of events resulting in death, serious injury, or damage to or loss of equipment or property. The list of items in proposed § 450.109(a)(1) is a list of hazard categories that exist in all commercial space operations and must therefore be eliminated or mitigated to acceptable levels.

After identifying and describing hazards, proposed § 450.109(a)(2) would require that an operator assess each hazard's likelihood and severity. This assessment would be used to establish mitigation priorities. The operator would then determine the severity of the specific potential hazardous condition with respect to public safety. An operator should determine the severity for a specific hazard by identifying the worst credible event that may result from the hazard. For example, if an operator identifies a hazard such as incorrect vehicle position data due to inertial measurement unit (IMU) drift leading to an off nominal trajectory, the operator would determine the public impact using the greatest off nominal vehicle trajectory and the worst credible public safety outcome. Meaning, if the vehicle would break up aerodynamically due to an off nominal trajectory caused by IMU drift, the operator should base its severity assessment on the debris event generated by the break up taking into account the population in the area. If the vehicle operates in a remote area the severity may be low; however, if the operation occurs within the reach of the population, the severity would be catastrophic.

After severity and likelihood are assessed, proposed § 450.109(a)(3) would require that an operator ensure that any hazard that may cause a casualty is extremely remote, and any hazard that can cause major damage to public property or critical assets is remote. If a particular hazard source has been observed in a similar operation under similar conditions, it will be difficult to justify that the likelihood of the reoccurrence of the event will qualify as remote or extremely remote. This requirement is substantively the same as current practice under § 431.35(c) and is specifically called out in § 437.55(a)(3) for experimental permits. Examples of suggested likelihood categories for remote and extremely remote are provided in FAA's Advisory Circular (AC) 437.55–1

[66] RCC 319 can be found at *http://www.wsmr.army.mil/RCCsite/Documents/319-14_Flight_Termination_Systems_Commonality_Standard/RCC_319-14_FTS_Commonality.pdf.*

[67] The current ELV regulatory scheme in parts 415 and 417 mitigates flight hazards for all launches by requiring a reliable FSS and prescriptive flight abort requirements.

[68] Current RLV and reentry vehicle regulations in parts 431 and 435 do not specifically require a flight hazard analysis. However, § 431.35(c) and (d) require a system safety process to identify hazards, assess the risks, and the elimination or mitigation of the risk. In practice, the FAA has interpreted this broad section to require a flight hazard analysis.

''Hazard Analyses for the Launch or Reentry of a Reusable Suborbital Rocket Under an Experimental Permit'' as 1×10^{-5} and 1×10^{-6}, respectively.

The operator would then need to identify and describe risk elimination and mitigation measures as required by proposed § 450.109(a)(4). The operator should always consider whether the risk mitigation measures introduce new hazards. This proposed section codifies current practice under the § 431.35(c) broad system safety analysis requirement. Although not required, system safety standards and advisory material such as MIL–STD–882E, AC 437.55–1, and AC 431.35–2A ''Reusable Launch and Reentry Vehicle System Safety Process'' recommend that operators develop risk elimination or mitigation approaches in the following order:

1. *Design for minimum risk.* The first priority should be to eliminate hazards through appropriate design or operational choices.[69] If an operator cannot eliminate a risk, it should minimize it through design or operational choices.

2. *Incorporate safety devices.* If an operator cannot eliminate hazards through design or operation selection, then an operator should reduce risks through the use of active or passive safety devices.[70]

3. *Provide warning devices.* When neither design nor safety devices can eliminate or adequately reduce identified risks, the operator should use a device to detect and warn of the hazardous condition to minimize the likelihood of inappropriate human reaction and response.[71]

4. *Implement procedures and training.* When it is impractical to eliminate risks through design or safety and warning devices, the operator should develop and implement procedures and training that mitigate the risks.[72]

Proposed § 450.109(a)(5) would require that the risk elimination and mitigation measures achieve the proposed risk levels in § 450.109(a)(3) through verification and validation. Verification ensures the measures themselves are properly developed and implemented while validation ensures the measures will actually achieve the desired outcome. Verification takes place while developing the measures and validation after development and implementation. This requirement is substantively the same as current practice under § 431.35(c). The acceptable methods of verifying safety measures are:

1. *Analysis:* Technical or mathematical evaluation, mathematical models, simulations, algorithms, and circuit diagrams.

2. *Test:* Actual operation to evaluate performance of system elements during ambient conditions or in operational environments at or above expected levels. These tests include functional tests and environmental tests.

3. *Demonstration:* Actual operation of the system or subsystem under specified scenarios, often used to verify reliability, transportability, maintainability, serviceability, and human engineering factors.

4. *Inspection:* Examination of hardware, software, or documentation to verify compliance of the feature with predetermined criteria.

An operator could use methods separately or combine them depending on the feasibility of the methods and the maturity of the vehicle and operation.

Proposed § 450.109(b) would require that an applicant establish and document the criteria and techniques for identifying new hazards throughout the launch or reentry system lifecycle. Development, implementation, and continued operation of any system requires that changes be made throughout the lifecycle. Changes to the vehicle, especially to safety-critical systems and operations, can have significant impacts on public safety and will result in changes to the hazard analysis. Anomalies and failures can also identify unknown hazards. This requirement is substantively the same as the FAA's current practice under § 431.35(c). Parts 415 and 417 do not have a flight hazard analysis requirement.

Proposed § 450.109(c) would require that the flight hazard analysis be updated and complete for every launch or reentry. In other words, the analysis must be applicable to the specific mission. A hazard analysis for a previous mission may be used only if the vehicle and operational details of the mission do not impact the validity of any aspect of the hazard analysis. The FAA has not prescribed the methodology that an operator must follow to ensure the accuracy of a flight hazard analyses. However, this item is key to ensuring that the operator is aware of the hazards in the proposed operation.

Proposed § 450.109(d) requires that an operator continually update the flight hazard analysis throughout the operational lifecycle of the launch or reentry system. This requirement is substantively the same as current FAA practice under § 431.35(c).

Proposed § 450.109(e) establishes the flight hazard analysis application requirements. An applicant would be required to submit a flight hazard analysis in its application to provide the FAA with sufficient detail to evaluate the applicant's flight hazard analyses and its criteria and techniques for identifying new hazards throughout the lifecycle of the launch or reentry system. The FAA recommends that the applicant provide at a minimum a hazard table that provides a description of each hazard identified, associated severity and likelihood of each hazard, the mitigation measures identified for each hazard, and a summary of the validation and verification of each hazard. For hazards that require mitigation, the applicant would also be required to provide the data showing the verification of those mitigations measures. The FAA expects the results of any testing or analysis associated with the verification to be in a format that is easily understood by an experienced technical evaluator. For items verified by analysis, the applicant should provide the assumptions and methodology used to conduct the analyses if it is not easily understood by evaluating the results. These application requirements would not require more than the current practices under § 431.35(c) and (d).

G. Computing Systems and Software Overview

The FAA is proposing to address hazards associated with computing systems and software separate from flight hazard analysis. The FAA would consolidate all software safety requirements applicable to launch or reentry operations in a single section, in proposed § 450.111 (Computing Systems and Software).[73] These proposed regulations address both software and how the software operates on the intended hardware and computing systems.[74] While the FAA discusses

[69] An example of designing out risk to the public would be to operate in an unpopulated area.

[70] An example of an active safety device would be a computing system that automatically shuts down the rocket engine when a sensor detects high thrust chamber temperatures. A passive safety device might be a firewall to prevent a fire from reaching a pilot.

[71] An example of a warning device would be an abort indicator such as a flashing light or a message on a cockpit instrument panel.

[72] An example of risk mitigation procedures and training are abort procedures and rehearsals of those procedures.

[73] For the purpose of this discussion, the phrase ''software safety requirements'' refers to software safety regulations and ''software requirements'' refers to the specifications that define a software component's intended functionality.

[74] The FAA understands software to mean a combination of computer instructions and

hardware requirements elsewhere under the safety-critical systems requirements, it is important to recognize that software safety cannot be evaluated outside of the computing system in which it operates.[75] A computing system is a complete system made up of the central processing unit, memory, related electronics, and peripheral devices.

These proposed software safety requirements would streamline the software safety evaluation process by adding detail to the performance-based requirements in the existing rules. The software safety requirements in the proposed rule are levied in proportion to the potential software hazards and the degree of control over those hazards.[76] In other words, software safety requirements would increase in rigor with the rise in potential safety risks and degree of autonomy. Conversely, software safety requirements would decrease in rigor with reductions in the potential safety risk or degree of autonomy.[77] This approach would codify existing FAA practice of modulating the stringency of review commensurate with the level of public risk. The FAA would also add more clarity to the software scaled requirements to guide applicants to appropriate and predictable engineering judgments when determining the proper depth and breadth of software development, analysis, and verification activities. The FAA expects these changes would enable innovation by setting predictable safety requirements based on knowable characteristics of new software systems and in proportion to the risks involved with the innovation. For a detailed discussion, please see the Additional Technical Justification and Rationale discussion later in the preamble.

H. Hybrid Launch Vehicles

Hybrid vehicles are vehicles that have some characteristics of aircraft and other characteristics of traditional launch or reentry vehicles. This proposal would allow an operator to forego the use of flight abort as a hazard control strategy during certain phases of flight if the hybrid launch or reentry vehicle has a high demonstrated reliability during those phases of flight. The FAA would make these determinations on a case-by-case basis based on a vehicle's demonstrated reliability.

The FAA may regulate hybrid vehicles under either the commercial space transportation or the civil aircraft regulations, depending on the operation. For a flight of a hybrid vehicle where a carrier aircraft has been modified to carry a rocket and the operator intends to ignite the rocket, the FAA considers the aircraft a component of the launch vehicle.[78] The combination launch vehicle system is authorized solely by a vehicle operator license or experimental permit under Title 51. The FAA currently authorizes the operation of hybrid vehicles using a license or permit for the entire mission from preflight ground activities through taxi, take off, flight, landing, wheel stop, and post-flight safing for all components of the combined launch vehicle system. The FAA has granted a license to hybrid vehicles such as the Stargazer/Pegasus, WhiteKnightOne/SpaceShipOne, WhiteKnightTwo/SpaceShipTwo, and Cosmic Girl/LauncherOne combinations. In addition to carrier aircraft models, hybrid vehicles may also include future concepts such as a single vehicle with both air-breathing and rocket engines, winged launch or reentry vehicles, balloon-launched rockets, and other concepts that may have characteristics of both aviation and traditional launch or reentry vehicles.[79] The FAA will work with applicants using hybrid vehicles during pre-application to identify the appropriate regulatory path. To date, the FAA has issued guidance in two legal interpretations on the process for determining whether flights or portions of flights of hybrid vehicles are regulated under title 49 or Title 51.[80] As new hybrid concepts are unveiled, the FAA anticipates issuing additional guidance to assist operators.

The FAA has worked with and received input from industry on how to regulate hybrid vehicles. For instance, in 2017 and 2018, the FAA convened a Safety Risk Management (SRM) panel consisting of FAA and industry representatives to review and assess hazards associated with captive carry operations.[81] The panel recommended dispensing with any aircraft hazard area requirement during the captive carry phase of flight for previously licensed hybrid vehicles with fixed-wing carrier aircraft. The ARC also recommended that the FAA set a different standard for hybrid vehicles, specifically that the FAA not require an FSA for operations where the agency has already considered impacts to public safety during the airworthiness certification process. Additionally, the ARC recommended that an operator only be required to conduct an FSA for those portions of flight when the hazardous configuration of the hybrid system differs from that approved under an experimental airworthiness certificate or equivalent authorization.

As discussed earlier, the FAA proposes to provide flexibility for certain phases of flight with respect to FSA (proposed § 450.113(a)(5)) and FSS (proposed § 450.101(c)) requirements. This is consistent with the ARC's recommendation. The FAA recognizes that airworthiness certificates and licenses, when developed collaboratively between the Aviation Safety and Commercial Space Transportation lines of business, sufficiently protect the public. In these cases, the FAA would include a license term and condition for a current airworthiness certificate. Specifically, the license would impose terms and conditions such as compliance with certain part 91 (General Operating and

computer data that enables a computer to perform computational and control functions.

[75] Hardware is the collection of physical parts of a computer system, including memory storage devices, power sources, and processors that execute software.

[76] For the purpose of this rulemaking, software hazards are those hazardous conditions created by the execution of software, or for which software is used as a mitigation or control.

[77] The FAA uses the phrase ''level of rigor'' to describe the amount of precision and effort applied by an applicant to address the severity of a hazard and associated software autonomy.

[78] ''Chapter 509 applies when [a hybrid] system operates as a launch vehicle from the flight of the carrier aircraft, through ignition of the rocket, to the return and landing of the carrier aircraft and the suborbital rocket. For a mission that does not entail ignition of the rocket, the FAA's aviation statute and regulations apply.'' See *Legal Interpretation to Pamela L. Meredith from Mark W. Bury* (September 26, 2013).

[79] An example of a hybrid vehicle that does not use a carrier aircraft is the World View capsule. This capsule is not a rocket, but it meets the definition of a launch vehicle because it operates at an altitude where it needs to be designed, built, and tested to operate in outer space. *See Legal Interpretation to Pamela L. Meredith from Mark W. Bury,* September 26, 2013; (*https://www.faa.gov/about/office_org/headquarters_offices/agc/practice_areas/regulations/interpretations/data/interps/2013/meredith-zuckertscoutt&rasenberger%20-%20(2013)%20legal%20interpretation.pdf*). Similar to other hybrid vehicles, when not operating as a launch vehicle, World View will operate under the appropriate aviation provisions of title 49.

[80] Legal Interpretation to Kelvin B. Coleman from Lorelei Peter, July 23, 2018; (*https://www.faa.gov/about/office_org/headquarters_offices/agc/practice_areas/regulations/interpretations/data/interps/2018/coleman-ast-1%20-%20(2018)%20legal%20interpretation.pdf);* Legal Interpretation to Pamela L. Meredith from Mark W. Bury, Sept. 26, 2013; (*https://www.faa.gov/about/office_org/headquarters_offices/agc/practice_areas/regulations/interpretations/data/interps/2013/meredith-zuckertscoutt&rasenberger%20-%20(2013)%20legal%20interpretation.pdf*).

[81] The SRM panel members included FAA representatives from the Air Traffic Organization, Aviation Safety, and the Office of Commercial Space Transportation. The panel also included civil aviation and commercial space participants such as the Air Line Pilots Association, the National Air Traffic Controllers Association, Orbital ATK, Virgin Galactic, Virgin Orbit, and Mojave Air and Space Port.

Flight Rules) requirements and airworthiness operating limitations, not including any restrictions on compensation or hire. This blended approach of combining airworthiness with part 450's system safety requirements would ensure public safety without the need for an FSA.

This proposal would reduce FSA, CE_C, and FSS requirements for phases of flight such as the captive carry phase, the carrier-vehicle-alone phase, and any rocket component glide back. The captive carry phase of flight starts when the carrier vehicle takes off carrying the rocket aloft and transports it to the rocket release location. The carrier-vehicle-alone phase starts when the carrier vehicle releases the rocket, and includes all flight activities in support of the mission until the carrier vehicle lands and is safed. During the carrier-vehicle-alone phase, the rocket component is conducting its rocket-powered and coast phases. The rocket coast phase occurs immediately after the rocket engine shuts down, and is not considered an aviation-like glide phase because the pilot does not have significant control authority over the instantaneous impact point (the predicted impact point following thrust termination of a vehicle). For returning rockets, there may be a glide phase which begins at a point to be determined on a case-by-case basis after the vehicle completes any reconfiguration necessary and demonstrates non-rocket powered control authority and ends when the vehicle lands.

The FAA would work with hybrid vehicle applicants during pre-application consultation to determine the applicability of FSA, CE_C, and FSS requirements. For example, the FAA might determine the quantitative FSA requirement for those portions of a mission where the vehicle operates as a civil aviation aircraft governed by civil aviation regulations (as incorporated into the license) is unnecessary because the vehicle has demonstrated reliability during that phase as indicated by the issuance of an airworthiness certificate. Thus, an applicant would not have to conduct the quantitative FSA for the aircraft-like controllable phases of flight, such as the captive carry phase or for phases with non-rocket powered or glide phases previously authorized under an airworthiness certificate. This would not normally be the case during the rocket-powered, coast, reentry, or glide back phases of flight that are unique to space flight. All other regulatory requirements, including system safety requirements, would apply to the entire mission. Due to the unknown operating characteristics of future hybrid vehicles, the FAA is not proposing to provide a blanket FSA exemption for all hybrid systems.

I. Flight Safety Analysis Overview

For purposes of this proposed rule, a flight safety analysis consists of a set of quantitative analyses used to determine flight commit criteria, flight abort rules, flight hazard areas, and other mitigation measures, and to verify compliance with the public safety criteria in proposed § 450.101. The FAA proposes 15 sections for flight safety analysis. The analyses are described here briefly because of their overall importance to the regulation and are discussed in greater detail in the ''Additional Technical Justification and Rationale'' section. Furthermore, the FAA plans to publish updated ACs and guidelines to describe acceptable means to conduct these analyses.

The first two sections for FSA would outline the scope, applicability, and methods for conducting FSAs:

1. *Flight Safety Analysis Requirements—Scope and Applicability (§ 450.113).* This section would establish the portions of flight for which an operator would be required to perform and document an FSA and would identify the analyses required for each type of operation.

2. *Flight Safety Analysis Methods (§ 450.115).* This section would set methodology requirements for FSAs, including level of fidelity.

Three sections would require fundamental flight safety analyses:

1. *Trajectory Analysis for Normal Flight (§ 450.117).* All the FSAs depend on some form of analysis of the trajectory under normal conditions, referred to as a normal trajectory.

2. *Trajectory Analysis for Malfunction Flight (§ 450.119).* A malfunction trajectory analysis is necessary to determine how far a vehicle can deviate from its normal flight path in case of a malfunction. This analysis helps determine impact points in case of a malfunction and is therefore a vital input for the analyses needed to demonstrate compliance with risk criteria.

3. *Debris Analysis (§ 450.121).* A debris analysis is necessary to characterize the debris generated in various failure scenarios, including those that could produce an intact vehicle impact.

Four analyses would produce information necessary to implement flight abort as a hazard control strategy:

1. *Flight Safety Limits Analysis (§ 450.123).* A flight safety limit analysis is necessary to identify uncontrolled areas and establish flight safety limits that define when an operator must initiate flight abort to (1) ensure compliance with the public safety criteria of proposed § 450.101, and (2) prevent debris capable of causing a casualty from impacting in uncontrolled areas if the vehicle is outside the limits of a useful mission.

2. *Gate Analysis (§ 450.125).* A gate analysis is necessary to determine necessary openings in a flight safety limit through which a vehicle may fly, provided the vehicle meets certain pre-defined conditions indicating an ability to continue safe flight.

3. *Data Loss Flight Time and Planned Safe Flight State Analyses (§ 450.127).* A data loss flight time analysis is necessary to establish when an operator must abort a flight following the loss of vehicle tracking information. A planned safe flight state analysis is necessary to determine when an FSS is no longer necessary.

4. *Time Delay Analysis (§ 450.129).* A time delay analysis is necessary to establish the mean elapsed time between the violation of a flight abort rule and the time when the flight safety system is capable of aborting flight for use in establishing flight safety limits.

One section addresses probability of failure analysis:

1. *Probability of Failure Analysis (§ 450.131).* During any particular flight or phase of flight, an estimated probability of failure, and how that probability is allocated across flight time and vehicle response mode, is necessary to support the determination of hazard areas and risk.

One section addresses the determination of flight hazard areas:

1. *Flight Hazard Area Analysis (§ 450.133).* This analysis is necessary to determine any region of land, sea, or air that must be surveyed, publicized, controlled, or evacuated in order to protect the public health and safety, and safety of property.

Three sections would be necessary to determine whether risk criteria are met for different types of hazards:

1. *Debris Risk Analysis (§ 450.135).* A debris risk analysis is necessary to determine whether the individual and collective risks of public casualties, due to inert and explosive debris hazards meets public safety criteria.

2. *Far-field Overpressure Blast Effects Analysis (§ 450.137).* This analysis is necessary to determine whether the potential public hazard from broken windows as a result of impacting explosive debris, including impact of an intact launch vehicle, meets public safety criteria.

3. *Toxic Hazards for Flight (§ 450.139).* This analysis is necessary to determine whether hazards associated with toxic release meet public safety criteria.

Lastly, one section is necessary for the launch of an unguided suborbital launch vehicle using wind weighting as a hazard control strategy. A launch vehicle using other mitigations would not be required to conduct this analysis:

1. *Wind Weighting for the Flight of an Unguided Suborbital Launch Vehicle (§ 450.141).* This section would outline a wind weighting analysis that is required to ensure that the launch of an unguided suborbital launch vehicle using wind weighting as a hazard control strategy meets public safety criteria.

J. Safety-Critical Systems

1. Safety-Critical Systems Design, Test, and Documentation

The FAA proposes to consolidate the design, test, and documentation requirements for safety-critical components in proposed § 450.143 (Safety-Critical System Design, Test, and Documentation). A common set of requirements is needed for clarity and consistency.

Safety-critical systems or components include those systems or components whose performance is essential to ensuring public safety. Historically, the FAA has considered the FSS to be the only safety-critical system on an ELV. For RLVs and reentry vehicles, the use of a systematic, logical, and disciplined system safety process is meant to identify safety-critical systems and the extent of prudent operational controls.[82] If a system failure would cause any hazards and those hazards could reach a populated area, then the system is likely a safety-critical system. Generally, RLV operators incorporate FSSs, although they may also incorporate other safety-critical elements of risk mitigation and hazard control. Non-RLV reentry vehicles also require a thorough system safety process to identify safety-critical hardware.

The current rules for ELV, RLV, and reentry vehicle safety-critical systems are quite different. However, in practice, the evaluation of the safety of such systems is very similar. Parts 415 and 417 require ELVs to have very reliable hazard-constraining FSSs that ensure public safety. These FSSs are subject to design requirements, extensive design qualification testing, and acceptance testing of all components. RLVs and reentry vehicles are required to undergo a comprehensive system safety engineering process that, in part, identifies and eliminates hazards to reduce the associated risk to acceptable levels by defining safety-critical systems and identifying associated hazards and risks. Under system safety, an operator develops design-level safety requirements and provides evidence for verification and validation of safety-critical systems and requirements. For safety-critical systems this serves the purpose of design qualification and acceptance. Given that RLVs are built to experience multiple flights, the lifecycle[83] of safety-critical systems must also be considered as part of the design, testing, and documentation.

i. Current Qualification and Acceptance Testing Requirements

Qualification testing is an assessment of a prototype or other structural article to verify the structural integrity of a design. Generally, qualification testing involves testing the design under a number of different environmental factors to stress the design, with a multiplying factor applied to the expected environmental testing limit. This qualification testing is conducted for temperatures, tensile loads, handling shocks, and other expected environmental stressors.

Unlike qualification testing that is performed on qualification units, acceptance testing is performance testing conducted on the actual hardware to be used on a vehicle after the completion of the manufacturing process. Generally, acceptance tests are performed on each article of the safety-critical flight hardware to verify that it is free of defects, free of integration and workmanship errors, and ready for operational use. Acceptance testing includes testing for defects, along with environmental testing similar to the qualification testing described earlier.

For ELVs, qualification and acceptance testing are important verification of the reliability of all FSSs at the subsystem and component level, and ensures the safe operability of the only safety-critical system on any given ELV. For ELVs, current qualification and acceptance testing requirements and procedures for FSS subsystems and components are listed in §§ 417.305, 417.307, and appendix E of part 417 (E417). As FSSs are the only safety-critical systems on traditional ELVs, the component-level testing requirements in part 417 describe the testing of specific possible components in great detail, going so far as to differentiate testing requirements for silver-zinc batteries in E417.21 from nickel-cadmium batteries in E417.22. While the FAA has approved alternative FSSs, the prescription level of the current requirements discourages significant innovation.

The same emphasis on validation of design and verification of hardware tolerances applies to components that have been identified as safety-critical during a system safety process. For RLVs and reentry vehicles, a system safety process is required by § 431.35(c).[84] Under the system safety process, a vehicle designer must assess nominal and non-nominal flight scenarios of the vehicle and must account for any possible safety-critical system failures during flight that could result in a casualty to the public. Those vehicle operators are required, by § 431.35(d)(3), to identify all safety-critical systems and are required by § 431.35(d)(7) to demonstrate the risk elimination in relation to those safety-critical systems. While not explicitly called out in the current part 431 or 435, qualification and acceptance testing are the widely accepted standards for demonstrating that safety-critical systems, subsystems, and components are not at risk of failing during flight.

Current regulations are undefined with respect to the applicability of qualification and testing of safety-critical components that are not listed in §§ 417.301(b), 417.305 and 417.307, or appendix E of part 417. The regulations are similarly ambiguous if the vehicle does not have a traditional FSS but still has components that are considered safety-critical, like many vehicles licensed under part 431. This ambiguity has led to regulatory uncertainty, which in turn has resulted in lengthy exchanges between the FAA and license applicants about what components and systems needed to be tested, what testing would be acceptable to the FAA, and why that testing was necessary to be compliant. Testing is currently generally required for safety-critical systems across all vehicle types, either explicitly or as verification and validation in the

[82] Some of the more commonly used methodologies include Preliminary Hazard Lists (PHL), Preliminary Hazard Analyses (PHA), Event Tree Analyses (ETA), Fault Tree Analyses (FTA), FMEAs, and FMECAs. Generally, these methodologies help operators determine whether a system failure could cause a loss of vehicle control, a vehicle breakup or other creation of uncontrolled debris, a discharge of hazardous material, or would prevent safe landing.

[83] Many operators seek to refurbish or otherwise reuse safety-critical systems for multiple flights. Operators must design, test, and document safety-critical systems to demonstrate their safety-critical systems can continue to operate reliably throughout the component life in all predicted operating environments.

[84] Section 431.35(c) is required for reentry vehicles by § 435.33.

system safety process, but this is often not well-reflected in the current regulations. As a result, applicants often are confused by qualification testing requirements asserted by the FAA for RLVs when there are no explicit qualification testing requirements in part 431.

ii. Current Fault Tolerance Requirements

Fault-tolerance is the idea that a system must be designed so that it is able to perform its function in the event of a failure of one or more of its components. In a fault-tolerant design of a safety-critical system, no single credible fault should be capable of increasing the risk to public safety beyond that of a nominal operation. Typically, a fault-tolerant design applies redundancy or a system of safety barriers to ensure the system can function, though perhaps with reduced performance. An example of a fault-tolerant design is an aircraft with multiple engines that can continue flying even if one of the engines fails.

The current part 417 regulations cover fault-tolerant design of FSS components as a set of explicit prescriptive requirements. For instance, § 417.303(d) specifically lists fault-tolerance as a requirement of an FSS command control system design, requiring that no single failure point be able to inhibit the system's function or inadvertently transmit a flight termination command. An operator must demonstrate that the command system, in accordance with § 417.309(c), is fault tolerant through analysis, identification of possible failure modes, implementation of redundant systems or other mitigation measures, and verification that the mitigation measures will not fail simultaneously. Appendix D of part 417 (section D417.5) further details single fault tolerance and prescribes redundancy of command strings that are structurally, electrically, and mechanically separated to ensure that any failure that would damage, destroy, or otherwise inhibit the operation of one redundant component would not inhibit the operation of the other redundant component.

The current ELV regulations are prescriptive and often dictate specific implementations of fault-tolerance where other forms may be adequate. For instance, a fail-safe approach has been used in the rationale of past applicants that use thrust termination systems to protect public safety. A fail-safe design is a system that can fail in a controlled way, such that the failure will still ensure public safety, like elevator brakes held open by the tension of the elevator cable such that if the cable snaps the brakes engage and stop the elevator from falling. The FAA has granted waivers to the redundancy requirement of section D417.5(c) for fail-safe safety-critical systems that have been integrated in such a way that a loss of power to that system would result in direct thrust termination of the launch vehicle though deactivation of normally-closed valves. Also, ELOS determinations have been issued for flight termination receivers that have fail-safe commands that are issued on signal loss because the failure of the system automatically results in termination of the flight and the constraint of flight hazards. Less prescriptive fault-tolerant design regulations could enable such designs instead of requiring waivers or ELOS determinations.

Operations licensed under parts 431 and 435 may not have traditional FSSs, but the need for fault-tolerance is implicitly derived from the system safety process of § 431.35(c) and (d), as it is often a necessary control for an identified hazard. The FAA views fault-tolerance as a necessary characteristic of any reliable system.

The current fault tolerance provisions lack clarity in the scope of their applicability to RLVs and reentry vehicles because they are implicit in the system safety processes of hazard identification and mitigation. As with the testing requirements, a lack of regulatory clarity is detrimental to both applicants and the FAA, leading to confusion, a drawn-out application acceptance process, and lengthy discussions to arrive at a clear understanding of how fault tolerance is applicable to a proposed operation.

iii. Current Reuse Requirements

Safety-critical FSSs of ELVs generally undergo a single flight. Therefore, very little life-cycle planning is required for them unless an operator seeks to reuse certain safety-critical components. However, ELV operators must still account for environments that the FSS is expected to encounter throughout the lifecycle of the system, including storage, transportation, installation, and flight, which generally are built into qualification and acceptance testing levels. Lifecycle planning is a more significant concern for reusable safety-critical systems because near-total reuse is an expected part of their operation.

Current parts 415 and 417 contain requirements for the reuse of ELV FSS components. To be a licensed ELV operator, an applicant must submit to the FAA any reuse qualification testing, refurbishment, and acceptance testing plans, in accordance with § 415.129(f). Those test plans must show that any FSS component is still capable of performing as required when subjected to the qualification test environmental levels plus the total number of exposures to the maximum expected environmental levels for each of the flights to be flown. Previously flown FSSs must also abide by § E417.13(a)(3), and the components must undergo one or more reuse acceptance tests before each flight to demonstrate that the component still satisfies all its performance specifications when subjected to each maximum predicted environment. Additionally, tests for reuse must compare performance measurements to all previous tests to ensure no trends emerge that indicate performance degradation in the component that could prevent the component from satisfying all its performance specifications during flight. As the lines have blurred between ELVs with significantly reusable safety-critical systems and RLVs, these requirements still contain good safety policy, but they are constrained by their limited coverage of only traditional FSSs.

While operations licensed under part 431 are focused on RLVs, neither part 431 nor part 435 contain any explicit requirements placed on reuse. Like all other aspects of safety-critical system requirements, reuse under these parts is governed by the system safety process of § 431.35. Safety-critical systems that do not account for expected lifecycle, refurbishment, and reuse do not adequately meet the hazard identification and risk mitigation of the system safety requirements. Implicit in the system safety requirements, commensurate testing is required to demonstrate that the planned lifecycle performance remains accurate. Reuse of safety-critical components is a potential hazard that needs to be mitigated.

Reuse induces stress on components and systems that can degrade operational performance if not accounted for in design and testing. Additionally, ''reuse'' implies multiple uses of a component after its initial intended lifetime or outside of its initial intended operating environments. Based on industry best practices, intended use and lifetime should be designed into components initially; qualification and acceptance testing should be based on predicted operating environments that encompass the entire lifetime of a system; and lifecycle management practices should be used to refine initial predictions. The current lack of a clear, unified, and simple requirement that explicitly covers reuse for all safety-critical systems leads to prescriptive

constraints on ELV operators and regulatory confusion for RLV and reentry operators who are unfamiliar with the implicit requirements of a system safety process.

iv. Consolidation of Design, Test and Documentation Requirements

The FAA proposes to consolidate the design, test and documentation requirements for safety-critical systems and components, both identified by a system safety process and as part of an FSS, currently found in parts 415 and 417, 431, and 435. Specifically, the FAA proposes to provide performance-based requirements for safety-critical systems, including fault tolerant design, design qualification testing, hardware acceptance testing, and the verification of flight environments to assess the life-cycle of safety-critical systems for reuse purposes.

Under proposed § 450.143, all safety-critical systems would be required to meet these requirements, including a FSS that also would be required to meet the additional requirements of proposed § 450.145. By having a consistent set of overarching requirements regulating the design, testing, and documentation of safety-critical systems and hardware, the FAA anticipates that applicants would be enabled to implement new risk-mitigating design strategies under a clear and consolidated regulatory regime. New technologies that emerge would be covered by the general requirements without causing regulatory delays due to confusion, increasing paperwork burdens required for requesting waivers, or waiting for future rulemaking changes necessary to allow emerging technologies. These criteria would be the standards for demonstrating that such systems can survive and perform to an adequate level of safety in all operating environments.

The ARC recommended that better standards need to be developed regarding safety-critical systems. The ARC pointed out that there is no single process or procedure that documents an acceptable way to go through a system design and determine safety-criticality, and it asked for better guidance on safety-criticality, given that usually industry views criticality more from a mission assurance point of view. More generally, the ARC requested a more performance-based regulatory regime, with a clearer focus on safety and greater flexibility for novel operations. In regards to reuse and maintenance, the ARC suggested that requirements should be focused on maintaining reliability of inputs. The ARC specifically called out the section E417.13 requirement to remove and recomplete acceptance testing prior to reuse of flight safety system components between each flight as an untenable burden both in terms of cost and time. Furthermore, the ARC also noted that continued acceptance testing of flight hardware to predict environmental levels plus margins puts undue strain on flight systems and can significantly reduce their lifespan.

To remedy the confusion resulting from a current lack of regulatory clarity for RLVs and reentry vehicles, proposed § 450.143(c) and (d) would explicitly require qualification testing of the design and acceptance testing of the safety-critical flight hardware. To remedy the implied design constraints of current detailed requirements for ELVs, proposed § 450.143(c) and (d) would be general, high-level requirements for demonstrating the performance of safety-critical system design, and that the system is operational and free from defects and errors.

Specifically, proposed § 450.143(c) would require an operator to functionally demonstrate [85] the design of a vehicle's safety-critical systems at conditions beyond its predicted operating environment. The design qualification tests should include enough margin beyond predicted operating environments to demonstrate that the system design can tolerate manufacturing variance or environmental uncertainties without performance degradation.

Proposed § 450.143(d)(1) would require operators to perform a functional demonstration of any safety-critical systems by exposing them to their predicted operating environment with margin. The performance of the flight hardware during the test would be required to demonstrate that the flight units are free of defects, integration or workmanship errors, and are ready for operational use. Alternatively, an applicant would be able to comply with proposed § 450.143(d)(2) instead of proposed § 450.143(d)(1). If an applicant chooses to comply with proposed § 450.143(d)(2), it would be required to ensure functional capability and that the flight hardware remains free from error and defect during its service life through a combination of in-process controls and a quality assurance process. This flexible approach to acceptance testing would relieve some of the burdens of a traditional acceptance testing regime and would add clarity that these demonstrations are required for all safety-critical flight hardware.

[85] Functional demonstration is generally achieved through testing.

Proposed § 450.143 would clearly state the requirements for all safety-critical system components and eliminate the ambiguity that exists in the current regulations regarding required testing of safety-critical system components that are not a part of an FSS. While FSSs are safety-critical systems, their criticality requires additional requirements beyond proposed § 450.143. The consolidated performance requirements for FSS components are detailed in proposed § 450.145, and are discussed in the ''Flight Safety System'' section of this preamble.

As the proposed rule seeks to make the safety requirements of § 450.143 applicable to all commercial space launch and reentry vehicles, there should be better clarity across the industry and the government regarding what is required of safety-critical systems for both design qualification testing and flight hardware acceptance testing. Also, as recommended by the ARC, the FAA's proposal would allow for the possibility of other forms of acceptance testing methodologies and quality controls, subject to approval of the FAA, for safety-critical components that are not directly covered by the flight safety system requirements. This option should enable new business practices but maintain the safety verification necessary to ensure public safety.

The ARC did not speak specifically to fault tolerant design but did indicate that vehicle reliability and architecture should be considerations in the FAA's evaluation of novel systems. Proposed § 450.143(b) would require an applicant's safety-critical system to be designed so that no single credible fault would impact public safety. This proposal would provide clarity to the scope of the requirement of fault-tolerance by defining it as an explicit design performance requirement. It would replace many specific prescriptive requirements in part 417's subpart D and appendices D and E with a single general performance requirement and clarify the scope of applicability for RLV and reentry vehicle applicants. Additionally, by requiring only that the safety-critical systems be designed to be fault tolerant so that no single credible fault can lead to increased risk to public safety, the proposed regulations would allow flexibility as to the method an operator uses to comply with the requirements. For example, the FAA anticipates that an operator might choose to comply with proposed § 450.143(b) with a design that provides for redundancy for systems that can be duplicated or

through damage-tolerant design for those safety-critical systems (like primary structures) that cannot be redundant. It is expected that this flexibility would accommodate technical innovation. Additionally, an operator would be able to satisfy the fault-tolerance requirement by fail-safe designs that have traditionally been approved through ELOS determinations, eliminating the need for applicants to apply for additional FAA review and evaluation.

The ARC advised the FAA to focus on verifying the veracity of maintenance processes for reuse, combined with alternatives to acceptance testing on per flight basis. The FAA believes it has addressed the testing alternatives in this NPRM and agrees that the processes and procedures to ensure safety-critical systems are safe for reuse are an important part of lifecycle validation. Given safety-critical systems are essential to public safety, the FAA proposes that an operator would be required to validate predicted operating environments against actual operating environments and assess component life throughout the lifecycle of the safety-critical unit. This validation can be done through an initial fatigue life assessment and continual accounting of remaining components life or through a comprehensive inspection and maintenance program that accounts for damage accumulation and fault detection.

Proposed § 450.143(e) would require that predicted operating environments be based on conditions expected to be encountered in all phases of flight, recovery, preparation, and transportation. It would also require an operator to monitor the environments experienced by safety-critical systems in order to validate the predicated operating environment and assess the actual component life left or to adjust inspection periods. While the system safety and FSS approaches to reuse can further define specific requirements, the FAA proposes more general requirements on the operator to account for the complete lifecycle of each safety-critical system, considering the design, testing, and use of safety-critical components. Allowing operators to determine a proposed lifecycle for a safety-critical system, to demonstrate operational capabilities and environmental endurance through testing, to devise processes for monitoring the lifecycle of the safety-critical system, and setting criteria and procedures for refurbishment or replacement allows operators flexibility in their business plans. Having this flexibility would allow applicants to demonstrate to the FAA how they would ensure reused safety-critical components will not degrade in performance. The FAA anticipates that such a demonstration would include elements such as qualification of the design for its intended lifetime; acceptance testing to screen components; monitoring of environmental levels during use; and monitoring component health through inspections for either disposal or refurbishment.

While the lifecycle management requirement would give the applicant flexibility on implementation, the proposed rule would require applicants to consider the implementation details such as maintenance, inspection, and consumable replacement. With the flexibility of the top-level requirement, applicants could continue to employ rigorous, per flight acceptance testing of safety-critical components, or with enough flight data they may be able to employ a system more similar to commercial aviation where flown components can be assessed in light of the actual operating environment and planned component reuse does not require component testing on a per flight basis. Monitoring of environments and assessment of safety-critical hardware for reuse is expected to affect the probability of failure that would feed back into FSAs as a check that risk to public safety is not increased. These flexible, top-level requirements for safety-critical systems would make explicit the currently implicit reuse requirements of parts 431 and 435's system safety process, improving regulatory clarity and operational flexibility, while still requiring the important planning, monitoring, and assessments necessary to ensure public safety.

To demonstrate compliance with the proposed performance requirements, the FAA proposes clear application requirements in § 450.143(f). As in the current § 431.35(d)(3) and (5), an applicant would have to describe and diagram all safety-critical systems in its application. Similar requirements exist for ELV flight safety systems of part § 415.127(b) and (c). Section 450.143(f)(3) also would require a summary of the analysis detailing how applicants arrived at the predicted operating environment and duration for all qualification and acceptance testing. This is current practice, and proposed § 450.143(e) makes this requirement explicit for RLVs and reentry vehicles. The proposed requirements are also more generalized and adaptable than the current component-level requirements for ELVs. Under proposed § 450.143(f)(4) and (5), applicants would be required to detail their plans for lifecycle monitoring by describing any instrumentation or inspection processes used to assess reused safety-critical systems, and the criteria and procedures for any service life extension proposed for those system components. Much like the rest of the FAA's proposal, applicants of any vehicle type are already expected to provide this information, but the requirements have been distilled into high-level, generalized requirements to allow for maximum operational flexibility while still identifying the inputs the FAA needs to verify compliance with the safe performance and operation requirements. While FSSs are additionally subject to the requirements of proposed § 450.145, the proposed requirements for safety-critical systems would clarify existing practice and enable novel concepts of safety and safety-critical design.

2. Flight Safety System

An FSS is an integral tool to protect public health and safety and the safety of property from hazards presented by a vehicle in flight. An FSS allows an operator to exercise positive control of a launch or reentry vehicle, allowing an operator to destroy the vehicle, terminate thrust, or otherwise achieve flight abort. An extremely reliable FSS that controls the ending of vehicle flight according to properly established rules nearly ensures containment of hazards within acceptable limits. For that reason, the FAA considers an FSS a safety-critical system. The FAA currently requires an FSS for ELVs. Most RLVs—aside from unguided suborbital vehicles utilizing a wind weighting system or certain vehicles where the vehicle's operation is contained by physics—derive from the system safety process the need for some FSS to mitigate flight hazards.

Traditional FSSs for ELVs are comprised of an onboard flight termination system (FTS), a ground-based command and control system, and tracking and telemetry systems. Historically, the flight safety crew monitoring the course of a vehicle would send a command to self-destruct if the vehicle crossed flight safety limit lines and in doing so threatened a protected area. Redundant transceivers in the launch vehicle would receive the destruct command from the ground, set off charges in the vehicle to destroy the vehicle and disperse the propellants so that an errant vehicle's hazards would not impact populated areas. While this method of flight abort through ordnance is conventional, the FAA currently does

not require an FSS to be destructive, as made explicit in the definitions of FSS in both §§ 401.5 and 417.3.

There has been some innovation in FSSs—thrust termination systems are used frequently and most RLVs can demonstrate regulatory compliance with part 431 with a safety system that achieves a controlled landing in the event of an aborted flight. As the commercial space transportation industry has matured, operators have proposed FSS alternatives. These alternative approaches include fail-safe single string systems that trade off mission assurance and redundancy, other fail-safe consequence mitigation systems, and dual purpose systems such as FSSs that reuse the output of safety-critical GPS components for primary navigation avionics. These alternative approaches are not well governed by the existing regulations.

i. Current Regulatory Framework for FSS

The present ELV licensing requirements in parts 415 [86] and 417 include lengthy and detailed requirements for the performance of an FSS and its components, as well as detailed testing and reporting requirements. These requirements were originally adopted to match current practices at Federal ranges. Section 417.107(a) identifies the need for an FSS while subpart D (§§ 417.301–417.311) identifies the performance requirements of an FSS and its component systems. Appendices D [87] and E [88] include prescriptive FSS design, performance, testing, and analysis requirements. Under part 417, an FSS must consist of an FTS, a command and control system,[89] support systems (like tracking and telemetry),[90] and identification of the functions of any personnel who operate FSS hardware or software.[91] Together, these requirements allow for a very limited range of FSS concepts because they are primarily focused on containment of hazards by destruction of the vehicle or stage.

Section 417.301(b) permits applicants to propose alternative FSSs, which do not need to satisfy one or more of the prescriptive requirements of subpart D of part 417. This provision is intended to enable greater flexibility for innovation without negatively impacting safety. The FAA approves an alternative FSS if an operator establishes through a clear and convincing demonstration that a launch would achieve an equivalent level of safety to an operation that satisfies all of the existing FSS requirements. Alternative FSS, like traditional FSS, must still undergo rigorous analysis and testing to demonstrate the system's reliability to perform each intended function.

Unlike ELVs, RLVs are not explicitly required to have an FSS, but the requirement for an FSS and its reliability requirement is derived as an essential hazard mitigation from a robust system safety process under part 431. This requirement falls under the § 431.35(c) requirement for applicants to use a system safety process to identify the hazards and mitigate risks to public health and safety under non-nominal flight of the vehicle and payload. An acceptable system safety analysis identifies and assesses the probability and consequences of any reasonably foreseeable hazardous event and safety-critical system failures during launch flight that could result in a casualty to the public. Based on current practice, most RLVs must have some method to reliably achieve flight abort to fully mitigate flight risks and consequences, either in the form of a pilot that can safely abort flight using system controls, a more traditional FSS that is designed and tested in the same manner as is required for ELVs, or a system that can meet the requirements for an alternative FSS under § 417.301(b). The lack of an explicit requirement for an FSS in part 431 often leads to confusion regarding what is expected for applicants mitigating hazards through flight abort.

Reentry vehicles under part 435 are also subject to a system safety process to identify hazards and mitigate risks to public health and safety under non-nominal flight of the reentry vehicle and any payload. Because § 435.33 points to part 431, an acceptable system safety analysis for reentry also assesses the probability and consequences of any reasonably foreseeable hazardous events during the reentry flight that could result in a casualty to the public. Unlike part 431, most part 435 reentries do not require an FSS because it is generally accepted that, if controlled reentries become uncontrolled, the vehicle is unlikely to substantially survive reentry. Due to the nature of the hazards associated with reentry, and since breakup is expected for non-nominal reentries, an FSS often cannot significantly ameliorate a reentry flight's risk or consequence. A reentry applicant must still account for the possibility of a random reentry in its risk analysis after attempting a reentry burn.

ii. Autonomous Systems

Current regulations do not allow an operator to rely solely on an autonomous system to terminate a flight. At the time of their publication, human control capability was considered critical to safety because neither software nor hardware had been proven reliable to make flight termination decisions. Since that time, the FAA has approved the use of autonomous FSSs for ELVs by finding that they can meet the requirements of an alternative FSS under § 417.301(b). Applicants were able to demonstrate that the autonomous FSS achieved an equivalent level of safety to a launch with a human-in-the-loop as the risk to public safety was extremely low and the autonomous system had been flight tested in shadow mode. In past

[86] Part 415 contains the application requirements to demonstrate compliance with part 417 and the test report requirements to demonstrate compliance with the relevant appendices of part 417. Specifically, § 415.127 requires detailed descriptions and diagrams of the FSS and subsystems, a list of all system components that have a critical storage or service life, detailed descriptions of controls and displays, the system analyses of § 417.309, demonstration of compliance with the performance requirements, installation procedures, and tracking and monitoring validation procedures. Applicants must file all preliminary design data no later than 18 months before bringing any launch vehicle to a proposed launch site.

[87] Appendix D lists very detailed performance requirements and design reliability requirements including fault tolerance and redundancy, environment survivability requirements, radio command destruct parameters, remote and redundant safing mechanisms, positively controlled arming mechanisms, installation procedures, and system health monitoring. It also requires vehicles to have an automatic or inadvertent separation destruct system for any stage that does not possess a complete command destruct system but is capable of reaching a protected area before the planned safe flight state.

[88] Appendix E to part 417 contains the tests and analysis requirements to verify the performance requirements of FTSs and their components. It contains detailed component level charts for acceptance and qualification performance testing, including the number of samples (or percentage of the lot) that must undergo each test type. The testing plans must detail the environment, equipment, pass/fail criteria, measurements, other testing parameters, and any analyses planned in lieu of testing.

[89] A command control system transmits a command signal that has the radio frequency characteristics and power needed for receipt of the signal by the flight termination system onboard the launch vehicle. The command control system must include equipment to ensure that an onboard flight termination system will receive a transmitted command signal and must meet specific performance requirements in § 417.303.

[90] Currently, under § 417.307 an FSS must include two independent tracking sources and provide the launch vehicle position and status to the flight safety crew from liftoff until the vehicle reaches its planned safe flight state. Additionally, data processing, display, and recording systems must display, and record, raw input and processed data at no less than 0.1 second intervals.

[91] As part of the current requirements for an FSS, § 417.311(a) requires human intervention capability for flight termination to be initiated by flight safety crew. Therefore, § 417.307 requires design, test, and functional requirements for systems that support the functions of a flight safety crew, including any vehicle tracking system.

rulemakings, the FAA has made clear that, in requiring human intervention capability for activation of an FSS, the FAA did not intend to foreclose development or use of autonomous systems. However, despite those assurances and the FAA findings of equivalent safety, current FAA regulations still expressly require that a capability exist for a person to intervene and make decisions for FSS activation.

The FAA is proposing to update the regulations to match the current practice of allowing autonomous FSSs. By removing the outdated requirements for a human in-the-loop, the FAA believes that it would encourage further innovation without negatively impacting safety. The consequence analysis and reliability thresholds would continue to hold any potential autonomous FSS to the rigorous standards previously required of a human-initiated FSS, and the software as part of the autonomous FSS must be demonstrated to meet reliability requirements. With the recent advancements of the requisite technology and the performance constraints of the FSS, the FAA is confident that it is beneficial both to the commercial space transportation industry and public safety to explicitly allow flight abort to be governed by capable autonomous systems.

iii. Current Requirement for Reliability of a FSS

Each FTS and command and control system must satisfy the predicted reliability requirement of 0.999 at the 95 percent confidence level. For FSSs on both ELVs and RLVs, there are effectively only two methods of currently demonstrating that a system meets reliability standards. The first method is to test 2,995 units at expected operating environment levels with 0 failures to demonstrate a 0.999 design reliability at a 95 percent confidence level. Given the cost of FSS components, the cost of testing, and the time required to conduct such tests, this is not practicable.

The second method arises out of RCC 319. The FSS requirements codified in part 417, including component performance requirements, and acceptance and qualification testing, were originally written to align FAA launch licensing requirements with the Federal launch range standards in RCC 319. Like part 417, RCC 319 requires qualification tests to demonstrate reliable operation in environments exceeding the expected operating environment for the system components, acceptance tests to demonstrate that the selected batch of components meets the requirements of the design specifications, and other preflight testing at the system or subsystem level to demonstrate functionality after installation.

The benefit of the part 417 and RCC 319 method is that for qualification tests, generally only three test units are required. Three units are required instead of many more because the units are tested with margin above their predicted operating environment. Testing three units with the margin specified achieves the required reliability and confidence levels of 0.999 design reliability at 95 percent confidence level, rather than having to test 2,995 units at the predicted operating environment with no margin.

iv. Proposed Reliability Standards for FSS

Given the FAA anticipates that most commercial space vehicles will continue to control flight hazards through the use of FSSs, the FAA proposes in § 450.145 to continue to require a very reliable FSS in most instances. Under the current regulations, FSS not only enable an operation to meet the collective and individual risk criteria during flight but also protect against low-probability but high-consequence events near the launch site or when flying over populated areas. As previously discussed, the FAA's proposal to quantify these low-probability but high-consequence events as CE_C in proposed § 450.101(c) would clearly delineate which operations are required to use an FSS to control for risks and consequences.[92] The CE_C calculation is the consequence, measured in terms of E_C, without regard to the probability of failure.

The underlying intent of the current prescriptive requirements was to have an FSS that could reliably perform flight abort to restrict hazards from reaching populated or otherwise protected areas. The FAA also recognizes that vehicles operating in remote areas are less likely to have significant consequences in the case of a flight failure. For operations where the consequence of a flight failure is less, the FAA has determined that, while still being highly reliable, the FSS may not need to be as highly reliable as an FSS for a vehicle operating in an area where the consequence of a flight failure is higher. Generally, this proposed relaxation of the FSS reliability requirement—based on reduced potential consequence—is expected to be applicable to operations launching or reentering in remote locations or for stages that do not overfly population centers. In order to achieve these scalable, performance-based requirements, proposed § 450.145(a) would contain two reliability standards for an FSS.

Proposed § 450.145(a)(1) would require any operator with a consequence of 1×10^{-2} CE_C or greater in any uncontrolled area for any vehicle response mode to employ an FSS with the standard design reliability of 0.999 at 95 percent confidence and commensurate design, analysis, and testing. This reliability standard would be consistent with various sections of part 417, in particular § 417.309(b)(2), that require major FSS component systems, such as onboard flight termination systems and ground-based command control systems, to be tested to demonstrate 0.999 design reliability at 95 percent confidence. This reliability threshold would have to be demonstrated for the operation of the entire system, including any systems located on-board the launch or reentry vehicle, any ground-based systems, and any other component or support systems.

Alternatively, in order to make regulations adaptable to innovative operations while maintaining appropriate levels of safety, operations with lower potential consequences would require an FSS with less demonstrated design reliability at the same confidence. Proposed § 450.145(a)(2) would require any operator with a consequence of between 1×10^{-2} and 1×10^{-3} CE_C in any uncontrolled area for any vehicle response mode to only employ an FSS with design reliability of at least 0.975 at 95 percent confidence and commensurate testing. The FAA considered simply setting the proposed § 450.145(a)(2) threshold an order of magnitude lower, at 0.99 design reliability with a 95 percent confidence, to reflect the order of magnitude less CE_C from the consequence analysis. Absent other standards to demonstrate compliance with the reliability threshold, that would mean testing 299 units with 0 failures, instead of testing 2,995 units with 0 failures. However, in consultation with NASA and Air Force representatives in the CSWG, the FAA has elected to propose that the reduced reliability threshold should be set at

[92] As noted earlier, only operations that have a predicted consequence of 1×10^{-3} CE_C or above for uncontrolled areas for each reasonably foreseeable vehicle response mode in any one-second period of flight would be required to implement an FSS to abort flight as a hazard control strategy. An FSS would not be required for operations that can be shown to have a predicted consequence of less than 1×10^{-3} CE_C; however, a hazard analysis would be required for any operations without a FSS or demonstrable physical containment.

0.975 design reliability with a 95 percent confidence for lower consequence vehicles.

While there are no established standards to demonstrate the 0.975 reliability number, that threshold is consistent with reliability parameters in RCC 324 and represents existing single string flight reliability requirements. The FAA is confident that industry associations will develop consensus standards regarding design and testing that sufficiently demonstrate that a novel FSS design meets this reliability threshold. Until such time as an industry standard is established, proposed § 450.145(a)(2) in practice may result in single string or equivalent FSSs being approved for operations in remote areas or for phases of flight that do not overfly populated areas. Similar to FSS that must meet the more reliable threshold, all means of compliance would be required to be accepted by the FAA in accordance with proposed §§ 450.145(b) and 450.35.

These proposed reliability requirements would replace the existing launch and reentry FSS licensing requirements on all commercial space transportation missions. However, the FAA anticipates that, with the consequence analysis driving the requirement to have an FSS, most reentry operations would continue to not require an FSS as is the current case under part 435. For launch operators, applicants would still be required to demonstrate the reliability by submitting to review of their design, testing, and analysis. Operators would still be required to monitor the flight environments actually experienced by their FSSs in accordance with proposed § 450.145(c) to corroborate the qualification test data submitted to the FAA.

Proposed part 450 would consolidate and clarify the performance requirements for future FSSs. In doing so, the FAA anticipates that some operations will be relieved of the burden of unnecessarily stringent FSS reliability requirements and that some operations will be able to utilize innovative concepts to achieve flight abort. By appropriately scaling FSS reliability to consequence analysis, the FAA expects to see the emergence of new industry standards, increased use of autonomous FSSs, and no measurable adverse impact to public health and safety or the safety of property. There is expected to be no measurable adverse impact to public health and safety or the safety of property because the lowered reliability threshold will only apply to launches and reentries which would not create significant consequences, given a flight failure. Furthermore, while rigorous tests and analysis should still be expected for most FSSs, FAA regulations would no longer prescribe a particular form of FSS. The proposed performance measure of reliability to achieve safe flight abort to meet collective and individual risk limits and to mitigate the possibility of low probability but high consequence events is the best method for maintaining safety while scoping FAA regulations to govern only the function, not the form, of FSSs.

v. FSS Design, Testing, and Documentation Requirements

Applicants using a FSS of any reliability threshold would be required to meet the proposed § 450.143 safety-critical system design, test, and documentation requirements discussed previously. As an FSS will always be considered a safety critical system, any operator utilizing an FSS must comply with the requirements to design their system as fault tolerant, conduct qualification and acceptance testing, and provide evidence to validate predicted operating environments and component life.

Proposed § 450.145(d) would include the application requirements for an FSS. Similar to the current part 415 requirements, proposed § 450.145 would require applicants to describe the FSS, including its proposed operation, and diagram the FSS in detail. The FAA's intent is to make these requirements less prescriptive than current regulations and also to allow more flexible time frames. Proposed § 450.145(d) would require applicants to submit any analyses reports and acceptance, qualification, and preflight test plans used to demonstrate that the reliability and confidence levels are met. Any test plans or documentation would be required to detail the planned test procedures and the test environments. Further, an applicant would have to submit procedures for validating the accuracy of any vehicle tracking data utilized by the flight safety crew or the FSS to make the decision to abort flight. While proposed § 450.145(d) consolidates these application requirements and removes prescriptive component-level design requirements, the proposed regulations would not require substantially different information than the FAA requires today to demonstrate that FSSs meet performance standards and will undergo the required testing prior to flight.

vi. Reporting Requirements

Under the preflight reporting requirements in proposed § 450.213(d), operators would be required to submit, or to provide the FAA access to, any test reports associated with the flight safety system test plans approved during the application process. These reports must be submitted or made available no less than 30 days before flight unless the Administrator agrees to a different time frame under § 404.15. In the reports, licensees would have to clearly show that the testing results demonstrate compliance with the reliability requirements in proposed § 450.145(a). This is current practice under § 417.17(c)(1) and (4) through (6).

To show the FSS is in compliance and can support the mission as intended, FSS reports would continue to be required to include testing reports that detail the results of the approved subsystem and component-level testing, including any failures, any actions necessary to correct for any failures, actual testing environment showing sufficient margin to predicted operating environments, and a comparison matrix of the actual qualification and acceptance test levels used for each component compared against the predicted flight levels for each environment. Proposed § 450.213(d)(4) would require licensees to report any components qualified by similarity analysis or some combination of analysis and testing. Preflight reporting is necessary to demonstrate compliance with the test plans approved in the application and to demonstrate that the FSS meets the reliability threshold prior to flight.

Proposed § 450.215 (Post-Flight Reporting) would continue to require licensees to submit a post-flight report no later than 90 days after an operation if there were any anomalies in the flight environment material to public health and safety and the safety of property, including those experienced by any FSS components; a practice currently required by § 417.25(c). RLV operators licensed under part 431 are not currently required to submit a post-flight report identifying anomalies that are material to public safety and corrective actions, but the added burden is expected to be minimal. To accurately report any such anomalies so that they may be corrected in future flights, operators would also be required to monitor the FSS during each flight, in accordance with proposed § 450.145(c). Any anomalies experienced by the FSS would be considered material to public health and safety and the safety of property and, therefore, would need to be included in post-flight reporting.

vii. ARC Recommendations

The ARC suggested that, in a performance-based licensing scheme, the regulations should be flexible with regard to FSSs and allow an operator to propose a means of achieving the performance metric without dictating a specific hardware approach. For example, the ARC recommended that an operator should be able to propose an alternative to having a destruct flight termination system. While, the FAA believes that the current regulations allow for non-destructive FSSs, it acknowledges that the preponderance of the existing prescriptive requirements address FSSs that terminate flight through destructive means. The ARC recommended the current prescriptive requirements be moved to a guidance document. As discussed previously, the FAA intends to recognize RCC 319 as the accepted means of compliance in demonstrating that a FSS has a design reliability of 0.999 at 95 percent confidence. The RCC 319 document would maintain the common standards between all Federal launch and reentry safety authorities but also would be updated periodically to address the evolving space transportation industry. Industry could also develop new means of compliance in the future, as discussed below.

The ARC also recommended that an FSS should not be required, proposing instead that an operator should only be required to meet risk calculations in the FSA and may do so by utilizing a FSS. The FAA disagrees that an FSS should not be required, as there are other safety factors to be considered beyond simple individual or collective risk, namely, the consequence of a failure as discussed earlier. However, the FAA has attempted to propose more flexible regulations that would allow some operations to be licensed without an FSS, or with novel concepts of FSS, or an FSS that may require less extensive demonstration of reliability. In quantifying the low probability but high consequence events that necessitate an FSS beyond collective and individual risk limits, the FAA intends to more clearly delineate when it would be appropriate for an operation to forego an extremely reliable FSS or an FSS completely. If an FSS is not required, the applicant would be required to demonstrate that hazards are contained or mitigated through a hazard analysis and system safety principles. In addition to proposing the acceptability of FSSs with a design reliability of 0.975 at 95 percent confidence, under certain situations, the FAA proposes to indicate more clearly that FSS concept and design is flexible and open to innovation as long as the reliability thresholds for flight abort are met.

The ARC also discussed a number of concepts that industry believes should be considered in scaling an FSS's necessary reliability as determined through the FSA. The ARC pointed specifically to population density, the realm of reasonably foreseeable failures, trajectory, size, and explosive capabilities of the vehicle. The FAA proposes that these factors would be contemplated as a part of the consequence analysis required in the public safety criteria of proposed § 450.101(c), alongside traditional measures of risk. In identifying FSS reliability thresholds pegged to potential consequence, or CE_C, the reliability of FSSs is determined through analysis that accounts for factors such as what population centers a vehicle or debris can reach and potential failure modes. The FAA anticipates that this would address the ARC's recommendation that vehicles with low risk to the public, especially vehicles operating in remote and sparsely populated areas, may require a lower demonstrated reliability.

To the question of how an applicant might demonstrate the reliability of an FSS with a less than extremely reliable design that does not otherwise meet current common standards like RCC 319, such as the FAA proposed threshold of 0.975 at 95 percent confidence, the ARC advised that several approaches may already exist. As previously discussed, the less reliable FSS can be demonstrated by testing several hundred units under expected environments, instead of the 2,995 tests required to demonstrate design reliability of 0.999 at 95 percent—but it is still likely that neither is practical or viable for most operators. In their place, alternative standards are necessary to approximate the demonstration of the reliability threshold through less burdensome means. The ARC report pointed to the Air Force Space Command's Space and Missile Systems Center Standard SMC–S–016, ''Test Requirements For Launch, Upper-Stage and Space Vehicles,'' as an example of a standard that allows for one unit of qualification testing, instead of the standard three units required by RCC–319.[93] The ARC noted that standard may be useful for heritage systems that are already considered reliable. The FAA maintains that for 0.999 design reliability at 95 percent, the qualification testing of three or more units may be required to reduce the likelihood of either anomalous test passes or failures. The FAA seeks comment on this approach. The FAA also seeks comment on how SMC–S–016 could be incorporated as an accepted means of compliance for reliability demonstration of the lower reliability criteria.

In discussions with Federal launch range personnel, it has been suggested that testing and analysis requirements in RCC 324 may be a more appropriate basis for evaluating a FSS meeting the lower reliability threshold. The FAA remains interested in identifying standards that are applicable or could be drawn upon to develop means of compliance to the proposed regulations.

The FAA is also not foreclosing the idea that vehicles can demonstrate the reliability of the FSS or vehicle through flight history. The ARC pointed out in their report that certain aspects of FSSs can be tested in flight—for example using an autonomous FSS in ''shadow mode'' on-board a vehicle and testing the system's function with no ordnance or other active destruct capabilities. The FAA ultimately decided to not propose any explicit requirements pertaining to acceptable flight testing as a means of allowing industry applicants and the FAA to develop new accepted means of compliance in the demonstration of reliability. While the FAA wishes to encourage the innovation and development of novel reliability demonstration standards, the FAA also recognizes that such standards are not currently developed and would require extensive evaluation before they could be accepted as demonstrating fidelity and safety. Because the FSS is so critical to flight safety in the instances where it is required, new reliability and compliance demonstration strategies must be accepted by the FAA prior to application acceptance.

In discussing the scalability of FSS requirements, the ARC proposed that the FAA delineate categories of operators and vehicles. The suggested categories included a new vehicle by a new operator, a proven vehicle by an experienced operator, a derived vehicle by an experienced operator, and considerations for vehicle hazard class and population density in operating areas. The FAA considered operator and vehicle categories as a means of scaling FSS reliability requirements as an alternative to consequence analysis, but determined that the relevant measure of public protection indicating the need for

[93] As one company pointed out in the ARC report, SMC–S–016 and similar standards are for general vehicle testing and do not consider the higher reliability required for FSS, whereas RCC 319 and AFSPCMAN91–710 require additional margins and certainty. The company believes that testing a single unit is not sufficient, unless there was a tradeoff that increased the required test margin.

an FSS is not experience, but risk and possible consequence. While less experienced operators will likely pose a higher risk, as accounted for in the probability of failure, experience does not account for the potential consequences of a vehicle failure. Experienced operators with experienced vehicle designs can propose operations that still pose a high risk to the public, or an operation with low risk but high potential consequences in the event of a failure. The FAA seeks comment on the proposal to use consequence, not operator experience, as a factor in level-of-rigor.

K. Other Prescribed Hazard Controls

1. Agreements

The FAA proposes to streamline the existing agreement requirements by removing specific requirements for a variety of agreements and procedures and allowing an operator to determine what agreements would be needed for its particular operation. In § 450.147 (Agreements), a vehicle operator would be required to have written agreements with any entity that provides a service or use of property to meet a requirement in part 450.

Current § 417.13 requires a launch operator to enter into an agreement with a Federal launch range to have access to and the use of U.S. Government property and services required to support a licensed launch from the facility and for public-safety related operations and support before conducting a licensed launch from a Federal launch range. The Federal launch range arranges for the issuances of notifications to mariners and airmen.

Currently, for launches from a non-Federal launch site in the United States, a launch operator must ensure that launch processing at the launch site satisfies the requirements of part 417. For a launch from a launch site licensed under part 420, a launch operator must conduct its operations in accordance with any agreements that the launch site operator has entered into with any Federal and local authorities. These include agreements with the local U.S. Coast Guard district to establish procedures for the issuance of a Notice to Mariners (NTM) prior to a launch and with the FAA air traffic control (ATC) facility having jurisdiction over the airspace through which the launch will take place to establish procedures for the issuance of a Notice to Airmen (NOTAM) prior to the launch and for the closing of air routes during the launch window. For a launch from an exclusive-use site, where there is no licensed launch site operator, a launch operator must satisfy the requirements of part 420. In addition, a launch operator must: (1) Describe its procedures for informing local authorities of each designated hazard area near the launch site associated with a launch vehicle's planned trajectory and any planned impacts of launch vehicle components and debris; (2) provide any hazard area information to the local U. S. Coast Guard, or equivalent local authority, for the issuance of NTMs and to the FAA ATC office, or equivalent local authority, that have jurisdiction over the airspace through which the launch will take place for the issuance of NOTAMs; and (3) coordinate with any other local agency that supports the launch, such as local law enforcement agencies, emergency response agencies, fire departments, the National Park Service, and the Mineral Management Service.

For launches of RLVs under part 431 and reentries under part 435, an operator must enter into launch and reentry site use agreements with a Federal launch range or a licensed launch or reentry site operator that provide for access to and the use of property and services required to support a licensed RLV mission or reentry and public safety-related operations and support. Additionally, an operator must enter into agreements with the U.S. Coast Guard and the FAA regional office that has jurisdiction over the airspace through which a launch and reentry will take place to establish procedures for the issuance of NTMs and NOTAMs.

As discussed earlier, there are currently similar requirements under parts 417 and 431 and, by reference, part 435, for agreements to ensure that NTMs and NOTAMs are implemented. Part 417 references part 420, which also contains requirements for these notices and requires operators to describe procedures to ensure that these and other notifications are accomplished. Part 417 requires an operator to execute agreements with multiple entities. None of the current requirements adequately addresses NTMs and NOTAMs when the U.S. Coast Guard or the FAA does not have jurisdiction, such as with launches or reentries from or to foreign or international territories. Currently, these agreements must be in place before a license is issued. However, in practice, the FAA sometimes accepts draft agreements or makes the submission of the executed agreements a condition of the license.

Under proposed § 450.147, a vehicle operator would be required to enter into a written agreement with any entity that provides a service or property that meets a requirement in part 450. Such entities would include a Federal launch range operator, a licensed launch or reentry site operator, any party that provides access to or use of property and services required to support a safe launch or reentry under part 450, the U.S. Coast Guard, and the FAA. Other entities that provide a service or property could also include local, state, or federal agencies, or private parties. For instance, a local fire department might provide a standby service to control a possible fire, a state agency could provide any number of services such as road closures, and NASA might provide telemetry capability. Although agreements with local agencies, for example, may be necessary to ensure public safety, the FAA believes that it is overly prescriptive to list in regulation the specific entities with which each operator must enter into an agreement.

This proposal would require an operator to enter into only those agreements necessary for its particular operation. If an operator works with multiple entities to satisfy requirements in proposed part 450, it would need multiple agreements. However, if agreements required under this proposed section are already addressed in agreements executed by the site operator, an operator would only need to enter into agreements with either the Federal launch range or other site operator and any entity with which the site operator does not perform the necessary coordination. In particular, Federal launch ranges almost always arrange for the issuance of NTMs and NOTAMs for launches.[94]

The proposal also contemplates agreements between a maritime or aviation authority other than the U.S. Coast Guard or the FAA. Unless otherwise addressed in agreements with the site operator, the proposed rule would require an operator to enter into such agreements for a launch or reentry that crosses airspace or impacts water not under the jurisdiction or authority of the U.S. Coast Guard or the FAA.

Section 450.147(b) would require all agreements to clearly delineate the roles and responsibilities of each party in order to avoid confusion concerning responsibility for executing safety-related activities. Section 450.147(c) would require all agreements to be in effect before a license can be issued. However, as noted earlier, the FAA recognizes that agreements might not be finalized by the time the FAA is

[94] Typically, Federal ranges do not arrange for the issuance of NTMs and NOTAMs for the disposal of a launch vehicle from orbit or the reentry of a reusable launch or reentry vehicle.

prepared to make a licensing determination. Therefore, the regulation would allow an operator to request a later effective date, contingent upon the Administrator's approval. An operator could do this by providing the FAA the status of the negotiations involving the agreement including any significant issues that require resolution and the expected date for its execution.

Under proposed § 450.147(d), an applicant would be required to describe each agreement in its vehicle operator license application. An applicant should clearly delineate the roles and responsibilities of each party to the agreement to support a safe launch or reentry. The applicant would also need to provide a copy of any agreement, or portion thereof, to the FAA upon request. The FAA recognizes that some portions of agreements may contain business-related provisions that do not pertain to FAA requirements. Those portions would not be required. The FAA seeks comment on its proposed approach to agreements.

2. Safety-Critical Personnel Qualifications

The FAA proposes to remove the certification requirements found in §§ 417.105, 417.311, and 415.113 and replace them with performance-based requirements in § 450.149 (Safety-Critical Personnel Qualifications). Section 450.149 would require qualified personnel to perform safety-critical tasks for launch and reentry operations. The FAA also proposes to expand personnel qualification requirements to ensure that safety-critical personnel are qualified to perform their assigned safety tasks.

An operator must qualify and train its safety-critical personnel in performing their safety-critical tasks for all vehicle and license types because training mitigates the potential for human error during safety-critical operations. Currently, the FAA requires a personnel certification program in part 417 for personnel that perform safety-related tasks. Specifically, § 417.105 requires that a launch operator employ a personnel certification program that documents the qualifications, including education, experience and training, for each member of the launch crew. The launch operator's certification program must include annual reviews and revocation of certifications for negligence or failure to satisfy certification requirements. Section 415.113 requires an operator to submit a safety review document that describes how the applicant will satisfy the personnel certification program requirements of § 417.105 and identify by position individuals who implement the program. The document must also demonstrate how the launch operator implements the program, contain a table listing each hazardous operation or safety critical task certified personnel must perform, and include the position of the individual who reviews personnel qualifications and certifies the personnel performing the task. In § 417.105(b), an operator is required to review personnel qualifications and issue individual certifications. The intent behind this requirement was to ensure that qualified people perform the required safety tasks.

Neither part 431 nor part 435 have a personnel certification program requirement or any personnel training requirement; however, the need for personnel qualifications is a natural outcome of the system safety process.

The FAA recognizes that the current regulations in part 417 are inflexible and that using a certification program is not the only method to ensure qualified personnel perform safety-critical tasks. Operators may use other methods to verify all training and experience required for personnel to perform a task is current. For example, an operator may maintain training records to document internal training and currency requirements or completion standards for its safety critical personnel. An operator's issuance of individual certifications does not itself enhance public safety. If the personnel are qualified through training and experience for each safety task performed, additional certification is unnecessary because no additional training is required for an individual to be issued a certification. Removing the certification requirement would also reduce cost to the industry by removing the two-step process to allow qualified personnel to perform safety-related tasks.

Additionally, the flight safety crew roles and qualifications requirements in § 417.311, are prescriptive. Section 417.311(a) requires a flight safety crew to document each position description and maintain documentation of individual crew qualifications, including education, experience, and training, as part of the personnel certification program of § 417.105. Section 417.311(b) describes the roles of the flight safety crew and explicitly states subjects and tasks that the crew must be trained in and references the certification program. Finally, § 417.311(c) requires the flight safety crew members to complete a training and certification program to ensure familiarization with launch site, launch vehicle, and FSS functions, equipment, and procedures related to a launch prior to being called on to support a launch. It also requires a preflight readiness training and certification program be completed and prescribes the content that must be included in such training. The current regulations are a burden to operators because they focus on FSSs and do not account for evolving technologies, including autonomous FSSs. Removing the prescriptive requirements in § 417.311 and replacing them with performance-based requirements would alleviate this burden.

The ARC recommends that the proposed regulation ensure that the applicant has a structure in place to protect public safety, and that the FAA use current requirements as guidelines for evaluation and approval when necessary. The FAA agrees that the regulations should ensure that personnel performing tasks that impact public safety are qualified to perform those tasks. As the industry grows and operations become more frequent and varied, operators need greater flexibility in operational practices. Employing a qualification program to ensure personnel performing safety-critical tasks are trained is one factor in protecting safety of public and public property.

Therefore, the FAA proposes to remove the requirements for a certification program described in §§ 415.113 and 417.105 and replace the prescriptive requirements of § 417.311 with performance-based requirements that capture the intent of the current regulations—to ensure that an operator's safety-critical personnel are trained, qualified, and capable of performing their safety critical tasks, and that their training is current. Under proposed § 450.149, an applicant would be required to identify in its application the safety-critical tasks that require qualified personnel and provide its internal training and currency requirements, completion standards, or any other means of demonstrating compliance with proposed § 450.149(a).

The proposed performance-based requirements would allow each operator to identify the safety-critical operations and personnel needed for the operation. It would also allow an operator to determine what training, experience, and qualification should be required for each safety-critical task. The FAA would consider any task that may have an effect on public safety and meets the definition of safety-critical found in § 401.5 subject to the requirements of § 450.149. These tasks would include, but are not limited to, operating and installing flight safety system hardware,

operating safety support systems, monitoring vehicle performance, performing flight safety analysis, conducting launch operations, controlling public access, surveillance, and emergency response. With the many different kinds of operations currently underway, an operator is in the best position to identify the operations, personnel, and training needed for its operation.

The FAA would also require that an operator ensure personnel are qualified, and that those qualifications are current, without requiring certification. The regulation would require proper training of personnel and verification that each person performing safety critical tasks is qualified. Under § 450.149, an applicant would be required to document all safety-critical tasks and internal requirements or standards for personnel to meet prior to performing the identified tasks during the application phase. The applicant would be required to provide internal training and currency requirements, completion standards, or any other means of demonstrating compliance with the requirements of § 450.149 in its application. The applicant would also be required to describe the process for tracking training currency. In the event that a person's qualification was not current, either because their qualification does not meet the training currency requirements detailed in the application or because a new process or procedure has been instituted that has made the training inaccurate or incomplete, the individual would not be qualified to perform safety-related tasks specific to the expired qualification.

Lastly, part 460 contains training and qualification requirements for flight crew. Compliance with these requirements would meet the training and qualification requirements in proposed § 450.149 for flight crew.

3. Work Shift and Rest Requirements

The FAA proposes to combine the rest requirements of §§ 417.113(f) and 431.43(c)(4)(i) through (iv) into proposed § 450.151 (Work Shift and Rest Requirements) which would require an applicant to document and implement rest requirements that ensure personnel are physically and mentally capable of performing tasks assigned. An applicant would be required to submit its rest rules during the application phase.

Personnel involved in the launch or reentry of expendable and reusable vehicles need to be physically and mentally capable of performing their duties, especially those people making decisions or performing operations that affect public safety. Fatigue can degrade a person's ability to function and make the necessary decisions to conduct a safe launch or reentry operation. Since the FAA started requiring rest rules, there have been no incidents resulting from fatigue during a licensed launch or reentry. To maintain this level of safety, the FAA proposes to continue requiring rest rules in order to prevent fatigue and ensure operator personnel can perform their duties safely.

A 1993 NTSB investigation of an anomaly that occurred during a commercial launch from a Federal launch range found a high probability that fatigue and lack of rest prior to launch operations contributed to mistakes that resulted in the vehicle initiating flight while the range was in a no-go condition.[95] Launching in a no-go condition increases risk to the public because the vehicle operates outside of established boundaries and analysis. The NTSB found that the person who decided to proceed with the launch was not given enough time to rest after working extra hours the previous day. In addition, the launch was scheduled for early in the morning so the on-console time was around 2:00 a.m. The NTSB report recommended instituting rest rules that allow for sufficient rest before the launch operation.

As a result of the 1993 NTSB report, the FAA issued rest rules in its 1999 final rule. The 1999 final rule required an applicant to ensure that its flight safety personnel adhere to Federal launch range rest rules. In its 2000 final rule for RLVs, the FAA required rest rules, in § 431.43(c)(4), similar to the Air Force work and rest standards for launches and the FAA's ELV requirements.[96] The specific and detailed requirements set forth in § 431.43(c)(4) fail to account for the various factors that can affect crew rest such as the time of day of an operation, length of preflight operations, and travel to and from the launch or reentry site.

The 2006 final rule adopted the current § 417.113(f), which is more performance-based than § 431.43(c)(4). Section 417.113(f) requires that for any operation that has the potential to have an adverse effect on public safety, the launch rules must ensure that the launch crew is physically and mentally capable of performing all assigned tasks. It also requires those rules to govern the length, number, and frequency of work shifts, and the rest afforded to launch crew between shifts.

The ARC recommended the FAA use the § 417.113(f) approach as a basis for the proposed rest rules. The ARC recommended that the regulations should require each license applicant and operator to establish crew rest requirements applicable to their individual operation and suggested that the FAA consider each operator's rules through the application review and approval process. The FAA agrees with this approach. Additionally, the ARC suggested that the rest rules apply to specific personnel with direct control of the vehicle or launch or reentry decision making. While the FAA agrees with the intent of requiring all safety critical personnel to adhere to rest rules, it does not want to limit safety critical personnel to the roles the ARC identified because it is prescriptive and does not allow for operational flexibility.

The FAA also agrees with the ARC that it is up to the company to monitor compliance with its rest rules. The FAA does not have an explicit requirement for an operator to monitor its employees, only that it documents and implements rest requirements. The FAA seeks comment on whether a specific requirement for operator monitoring would be necessary. Regardless, the FAA would monitor compliance on occasion with its inspection program, as it does today with current crew rest rules.

The FAA recognizes that launch and reentry operations are varied. The FAA considered using prescriptive requirements like those in § 431.43(c)(4) to address rest rules. However, there are many factors that can affect crew rest that make a prescriptive regulation impracticably complex and inflexible for allowing alternate methods of compliance that take into account mitigations and unique circumstances.

Section 450.151 would retain the current performance-based requirements of § 417.113(f) with modifications to include launch and reentry operations. The proposed requirements would cover operations of expendable, reusable, and reentry vehicles and allow an operator flexibility to employ rest rules that fit

[95] *Special Investigation Report: Commercial Space Launch Incident, Launch Procedure Anomaly Orbital Sciences Corporation, Pegasus/SCD–1, 80 Nautical Miles East of Cape Canaveral, Florida, February 9, 1993.* Report PB 93–917003/NTSB/SIR93–02, July 23, 1993; (*https://www.ntsb.gov/safety/safety-studies/Documents/SIR9302.pdf*).

[96] Section 431.43(c)(4) contains requirements that are detailed and prescriptive. It requires vehicle safety operations personnel to adhere to specific work and rest standards. These requirements prescribe the maximum length of workshift and the minimum rest period after such work shift preceding initiation of an RLV reentry mission or during the conduct of the mission. It also prescribes the maximum hours permitted to be worked in the 7 days preceding initiation of an RLV mission, the maximum number of consecutive work days, and the minimum rest period after 5 consecutive days of 12-hour shifts.

the particular operations. Current § 417.113(f) requires that crew rest rules govern the length, number, and frequency of work shifts, including the rest afforded the launch crew between shifts. Similarly, proposed § 450.151(a) would require an operator to document and implement rest requirements that ensure safety-critical personnel are physically and mentally capable of performing all assigned tasks. Proposed § 450.151(b) would provide additional requirements regarding the aspects of work shifts and rest periods critical to public safety, and would add a process for extending work shifts.

Proposed § 450.151(b)(1) would require an operator's rest rules to include the duration of each work shift and the process for extending this shift; including the maximum allowable length of any extension. This requirement would provide each operator with the flexibility to identify the duration of each work shift most suited to the operation such that safety-critical personnel are physically and mentally capable of performing all assigned tasks. It would also require a process for extending a work shift. Work shift length is important because performance decreases and fatigue increases as the length of the work shift increases. An operator should determine the optimum length for a work shift that ensures personnel are capable of performing their assigned tasks. Unforeseen circumstances can require personnel to work beyond the established work shift length. In such cases, under this proposal, the operator would be required to have a process for extending the work shift length up to a limit where personnel are no longer considered capable of performing their duties.

Proposed § 450.151(b)(2) would require an operator's rest rules to include the number of consecutive work shift days allowed before rest is required. This requirement would provide each operator with the flexibility to identify the number of consecutive work shift days safety-critical personnel may work such that they remain physically and mentally capable of performing all assigned tasks. Proposed § 450.151(b)(3) would require an operator's rest rules to include the minimum rest period required between each work shift, including the period of rest required immediately before the flight countdown work shift. An operator would also be required to identify the minimum rest period required after the maximum number of work shift days allowed. Having enough rest between work shifts is important to ensure personnel are able to perform critical tasks. The rest period before a countdown is particularly important because it can be affected by time of launch, reviews, and work needed to get a vehicle ready for operation.

The FAA also proposes to remove the term ''crew'' from the rest requirements. The use of ''crew'' can be misleading and limiting. Operators could interpret crew to be flight crew only, whereas the rest rules are intended to apply to any position affecting public safety. Under this proposal, an applicant would be required to submit rest rules to the FAA that demonstrate compliance with proposed § 450.151. The FAA would evaluate an operator's rest rules in the same way as it currently does under § 417.113(f) to ensure that personnel affecting public safety are mentally and physically capable of performing their duties during launch or reentry operations, and that the rest rules satisfy the requirements of proposed § 450.151.

While an operator would be able to create its own rest rules under proposed § 450.151, an applicant would also be able to use current rest rules. That is, § 431.43(c)(4) would be an acceptable means of compliance to proposed § 450.151. The FAA would evaluate other rest rules against this benchmark and relevant standards.

4. Radio Frequency Management

The FAA proposes to maintain the current substantive requirements of § 417.111(f) for radio frequency management and to expand the applicability of these requirements to RLVs and reentry vehicles in proposed § 450.153 (Radio Frequency Management). The FAA also would remove the current requirements to implement a frequency management plan and to identify agreements for coordination of use of radio frequencies with any launch site operator and local and federal authorities.

Under § 415.119 and appendix B of part 415, an applicant for a launch license is required to include a frequency management plan [97] in its application, and that plan must satisfy the requirements of § 417.111(f). Specifically, current § 417.111(f) requires an operator to implement a frequency management plan that identifies each frequency, all allowable frequency tolerances, and each frequency's intended use, operating power, and source. The plan must also provide for the monitoring of frequency usage and enforcement of frequency allocations and identify agreements and procedures for coordinating use of radio frequencies with any launch site operator and any local and Federal authorities, including the FCC.

While parts 431 and 435 do not contain explicit frequency management requirements, an operator is required to identify and mitigate hazards, including hazards associated with frequency management as part of the system safety process in § 431.35(c) and (d). Section 431.35(c) requires operators to perform a hazard analysis and identify, implement, and verify mitigations are in place.[98]

Section 450.153 would replace the current requirement in § 417.111(f) to implement a frequency management plan. In proposed § 450.153(a), the FAA proposes to make these radio frequency management requirements applicable to any radio frequency used. This proposed requirement would include radio frequencies used not only in launch vehicles, but also in RLVs and reentry vehicles. Because radio frequency requirements are a mitigation for hazards associated with frequency management, the proposed requirements would not necessarily be new requirements for RLVs or reentry vehicles but would codify the need for radio frequency management for RLVs and reentry vehicles.

The FAA also proposes to maintain the substantive radio frequency requirements of current § 417.111(f) in proposed § 450.153(a). Although the increased use of autonomous termination systems makes frequency management less critical for flight termination, there are still many operators that use command termination systems. Moreover, these requirements remain applicable to autonomous termination systems because operators still need to allocate radio frequencies to telemetry and tracking. There are also other hazards, such as electromagnetic interference and induced currents, that can result from radio frequency interference and that require mitigation. Therefore, an operator would continue to be required to: (1) Identify each frequency, all allowable frequency tolerances and each frequency's intended use, operating power and source; (2) provide for monitoring of frequency usage and enforcement of frequency allocations; and (3)

[97] A radio frequency management plan describes how an operator manages radio frequencies to meet termination or tracking requirements.

[98] One such hazard is radio interference that could disable a commanded FSS. An operator might mitigate such a hazard by ensuring that the power level of the command transmitter is sufficient to ensure termination with high reliability (*i.e.,* 0.999 at 95 percent). For reentry vehicles, radio frequencies for tracking are coordinated to ensure there is coverage where needed as well as communication with the vehicle.

coordinate the use of radio frequencies with any site operator and any local and Federal authorities.

While no substantive changes are proposed to the radio frequency requirements, this proposal would remove the current requirement that an operator's frequency management plan identify agreements and procedures for coordinating the use of radio frequencies with any launch site operator and any local or federal authorities. Many of the agreements necessary for radio frequency management would be covered in proposed § 450.147.

In proposed § 450.153(b), an applicant would be required to submit procedures or other means to demonstrate compliance with the requirements of § 450.153(a) as part of its application. This requirement would provide an applicant flexibility in the manner of demonstrating compliance, such as using checklists or continuing to use a frequency management plan.

5. Readiness: Reviews and Rehearsals

The FAA proposes to revise and consolidate the readiness requirements of parts 417 and 431 into a performance-based regulation that would require an operator to document and implement procedures to assess readiness to proceed with the flight of a launch or reentry vehicle. The FAA currently requires an operator to be ready to perform launch or reentry operations. Readiness, which is currently addressed through readiness reviews and rehearsals, has three components—readiness of the vehicle, of the personnel, and of the equipment. In consolidating these parts, the FAA proposes to remove the current requirements to conduct rehearsals, to poll the FAA at the launch readiness review, and to provide a signed written decision to proceed. The FAA also proposes to eliminate the specific review requirements of §§ 417.117 and 431.37.

Launch rates have increased substantially since the adoption of parts 417 and 431. In 2007, an operator might only launch one to three times a year. Currently, there are operators that have launch rates exceeding 20 launches per year. Readiness requirements have become overly burdensome as operators spend time on rehearsals and reviews that were meant to ensure readiness. Timing requirements have resulted in additional reviews or non-compliances. Operators in a high launch rate environment may not benefit much from rehearsals and added reviews.

Currently, § 417.117 requires that a launch operator (1) review the status of operations, systems, equipment and personnel required by part 417, (2) maintain and implement documented criteria for successful completion of each review, (3) track and document corrective actions or issues identified during the review, and (4) ensure that launch operator personnel overseeing the review attest to successful completion of the reviews criteria in writing. Section 417.117(b)(3) requires an operator to conduct a launch readiness review for flight within 48 hours of flight. The decision to proceed with launch must be in writing and signed by the launch director and any launch site operator or Federal launch range. The launch operator must also poll the FAA to verify that the FAA has not identified any issues related to the launch operator's license.

For RLV operations, § 431.37 requires an applicant to submit procedures that ensure readiness of the vehicle, personnel, and equipment as part of the application process. These procedures must involve the vehicle safety operations personnel and the launch site and reentry site personnel involved in the mission. The procedures must include a mission readiness review and specify that the individual responsible for the conduct of the licensed activities is provided specific information upon which he or she can make a judgement as to mission readiness.

Additionally, as part of the readiness requirements, § 417.119 requires an operator to rehearse its launch crew and systems to identify corrective actions necessary to ensure public safety that cover the countdown, communications, and emergency procedures, and it specifically directs the launch operator in how to conduct its rehearsals. Section 431.33(c)(1) similarly requires an applicant to monitor and evaluate operational dress rehearsals to ensure they are conducted in accordance with procedures required by § 431.37 to ensure the readiness of vehicle safety operations personnel.

The requirements of both parts 417 and 431 are prescriptive and do not provide an operator with much flexibility as to compliance. The lack of flexibility is evidenced by the issuance of waivers and documentation of non-compliances. This requirement has created a burden on operators because they must spend extra resources requesting waivers and responding to enforcement actions. Processing waivers and conducting additional reviews costs time and money for the FAA, as well. For example, § 417.117(b)(3) requires a flight operator to hold a launch readiness review no earlier than 48 hours before flight. Since 2007, the FAA has processed over 20 waivers to the 48-hour requirement. In situations where ELV operators have not requested a waiver to the timing requirement, they have held additional reviews just to meet the timing requirement of the flight readiness review. Additionally, the FAA has issued at least three enforcement letters because operators did not meet the timing requirement.

The ARC recommended that the FAA distill reviews down to intent, list the minimum items the FAA reviews, and let the operator inform the FAA in the license application where those items are and how they would be reported. The FAA agrees that specific reviews are not required and proposes a list of items required to address readiness. The FAA also agrees that specific rehearsals are not required because there are a variety of methods by which an operator could meet readiness requirements. As discussed later, the FAA proposes to remove the specific requirement for rehearsals.

The FAA proposes to revise and consolidate the readiness requirements of parts 417 and part 431 into proposed § 450.155, which would require an operator to document and implement procedures to assess readiness to proceed with the flight of a launch or reentry vehicle. The FAA anticipates that under this proposal an operator would be able to achieve readiness by various methods including, but not limited to, readiness meetings, tests, rehearsals, static fire tests, wet dress rehearsals,[99] training, and experience.

While current regulations require specific readiness reviews, proposed § 450.155 (Readiness) would remove the requirement for flight readiness reviews, including the requirements for a launch readiness review no earlier than 15 days before flight and the flight readiness review no earlier than 48 hours before flight. The FAA proposes to remove these requirements because it has found that multiple readiness reviews may not be necessary to demonstrate readiness. For instance, readiness can be determined by a single meeting close enough in time to the launch or reenty to ensure there have been no material changes to readiness, such as failure of a radar or telemetry system. Under the proposed rule, it would be up to the operator to propose how it would ensure readiness, and whether such procedures would include one or more readiness reviews, testing, or some other means. By eliminating the timing requirements, operators with high launch rates could propose how they

[99] A wet dress rehearsal includes at least a partial fueling of a vehicle with a liquid propellant.

will ensure they are ready for launch and whether that involves one or more readiness reviews held close enough in time to the launch to ensure no significant changes occur between the review and the launch. Removing the specific requirements for reviews and tests would not relieve the operator from having to perform a test or hold a review that is necessary for determining readiness, rather it would provide the operator with flexibility to develop and propose those tests and reviews most suitable for the operation in order to ensure readiness. The FAA would evaluate and make a determination on the adequacy of the proposed procedures during the licensing process. The FAA plans to publish a draft means-of-compliance guide with the publication of the proposed rule, which should include acceptable approaches. In the long term, the FAA plans to refer to an AC or standard for every performance-based requirement.

Instead of requiring specific readiness reviews, proposed § 450.155 would require that an operator document and implement procedures to assess readiness to proceed with the flight of a launch or reentry vehicle. As part of the application requirements, the operator would be required to demonstrate compliance with the requirements of proposed § 450.155 through procedures that may include a readiness meeting close in time to flight. Unlike §§ 417.117 and 431.37, proposed § 450.155 would not specify particulars of what the procedures must contain. However, the operator would be required to document and implement procedures that at a minimum address: (1) Readiness of vehicle and launch, reentry, or landing site, including any contingency abort location; (2) readiness of safety-critical personnel, systems, software, procedures, equipment, property and services; and (3) readiness to implement a mishap plan. The FAA proposes to require that the procedures address these particular areas because the FAA has determined that a safe launch or reentry, at a minimum, requires the vehicle, site, and safety personnel to be ready and all safety systems and safety support equipment to be working properly. Additionally, being prepared to implement a mishap plan would ensure that public safety is maintained during a mishap because personnel would be familiar with their roles and ready to perform their duties in order to return the vehicle and site to a safe condition after the mishap.

The FAA also proposes to remove the requirement that an operator poll the FAA at the launch readiness review and provide a signed certificate of the decision to proceed contained in § 417.117. This polling is unnecessary because the FAA will always inform the operator of any licensing issues as soon as the FAA becomes aware of them. The FAA also proposes to remove the requirement that an operator provide a signed certificate of the decision to proceed with launch or reentry operations because the FAA has not used any signed certificate required under § 417.117 for any launch or reentry. All the certificates have been filed and have not served any purpose other than to comply with the requirement under § 417.117. The FAA believes that removing the requirements to poll the FAA and to have a signed certificate to proceed would not affect public safety and would relieve burdens to comply with those requirements from the operator and the FAA.

The FAA proposes to remove the requirements in § 417.119 because rehearsals are not always needed to achieve readiness. It is important that the launch team be familiar with operations. Rehearsals are a good way to ensure proficiency with procedures, exercise communications and critical safety positions as a team, and identify areas where the operator needs to improve. However, the FAA acknowledges that rehearsals are not the only way to ensure the readiness performance requirement is met. This proposal would allow an operator to determine what methods would be best suited to ensure readiness for its operation. Operators that have high launch rates may not need to rehearse personnel that were involved in a similar launch days or weeks earlier. However, licensees that have not launched for a long time or that are launching for the first time may need rehearsals to meet some of the readiness requirements. Operators with high launch rates could demonstrate readiness with a readiness review and would not have to hold rehearsals, and training could fill gaps where actual operations do not provide familiarity with certain aspects of operations. For example, if no anomalies are experienced during actual operations, the operator could hold a rehearsal or provide additional training to exercise the anomaly resolution process.

Current § 417.117(b)(3)(xi) requires an operator to review launch failure initial response actions and investigation roles and responsibilities and § 417.119(c) requires an operator to have a mishap plan rehearsal; current § 431.45 contains the requirements for a mishap plan for RLVs. Section 450.155(a)(3) would require an operator to document and implement procedures to ensure readiness to implement a mishap plan in the event of a mishap. The proposal would allow flexibility to meet the readiness requirement for implementing a mishap plan by allowing an operator to propose a procedure acceptable to the FAA. Thus, an operator would have the ability to develop procedures to ensure readiness through training, rehearsals, or other means that might be more applicable to its vehicle and mission. The FAA would still expect an operator to review any lesson learned, corrective action, or changes to procedures resulting from any mishap plan rehearsals or mishap investigations.

Under § 450.155(b), an applicant would need to demonstrate compliance with the requirements through procedures that may include a readiness meeting close in time to flight and describe the criteria for establishing readiness to proceed with the flight of a launch or reentry vehicle.

6. Communications

Currently, the FAA requires operators to implement communications plans to ensure that clear lines of authority and situational awareness are maintained during countdown operations. The communications plan was the result of a 1993 NTSB investigation discussed earlier. One of the contributing factors identified in the investigation was the lack of clear communications between different ranges and the operator. The FAA requirements for communications plans are currently found in §§ 417.111(k) and 431.41 and are nearly identical. Currently, §§ 417.111(k) and 431.41 require an operator to implement a communications plan. Part 435 requires a reentry vehicle operator to comply with the safety requirements of part 431, including § 431.41. Both §§ 417.111(k) and 431.41 require an operator's communications plan to define the authority of personnel, by individual or position title, to issue ''hold/resume,'' ''go/no-go,'' and abort commands; assign communication networks so that personnel have direct access to real-time safety-critical information required to issue ''hold/resume,'' ''go/no-go,'' and any abort decisions and commands; ensure personnel monitor common intercom channels during countdown and flight; and implement a protocol for using defined radio telephone communications terminology.

Additionally, § 431.41(b) requires that the applicant submit procedures to ensure that the licensee and reentry site personnel receive copies of the communications plan, and that the reentry site operator concurs with the plan. For launches from a Federal

launch range, § 417.111(k) also requires the Federal launch range to concur with the communications plan.

Operators launching from Federal launch ranges comply with § 417.111(k). Operators submit a communications plan during the application process and coordinate with the Air Force. The communications plan includes lines of authority, identification of who has access to which channels, protocols for communication and procedures for decision processes. Often, the communication plan is not fully developed at the time the operator applies for a license, so operators often submit a representative plan during the application process and then provide a final plan prior to the first launch under a license.

The FAA proposes to retain the substantive communications requirements in §§ 417.111(k) and 431.41 in § 450.157 (Communications), in paragraph (a), and remove the specific requirement to implement a communications plan. Section 450.157(b) would also require an operator to ensure currency of the communication procedures, similar to the current requirement in § 417.111(e). The FAA would preserve these requirements because all key participants must work from the same communications procedures in order to avoid miscommunication that could lead to a mishap.[100]

Section 450.157(c) would require an operator during each countdown to record all safety-critical communications network channels that are used for voice, video, or data transmissions to support safety-critical systems. This is substantially the same requirement as in §§ 417.111(l)(5)(vii) and 431.41. The FAA would retain this requirement because communications recording is often critical to mishap investigations.

Lastly, the FAA would not require operators to submit communication procedures during the application process because generally such procedures are not mature at the time of application, and hence are unlikely to be the ones used during the actual countdown. Under the proposal, the FAA would not approve the communications procedures prior to licensing and would rely instead on an inspection process that ensures the operator is following the requirements for communications procedures. These inspections would be consistent with current practice, where FAA inspectors often review the operator's final communications procedures. Given that the FAA would no longer require demonstrations of compliance at the application stage for communications and preflight procedures, operators may be required to make revisions to those procedures to resolve issues identified during compliance monitoring.

7. Preflight Procedures

Under § 417.111(l), an operator is required to develop and implement a countdown plan that verifies each launch safety rule and launch commit criterion is satisfied, personnel can communicate during the countdown, the communication is available after the flight, and a launch operator will be able to recover from a launch abort or delay. This countdown plan must cover the period of time when any launch support personnel are required to be at their designated stations through initiation of flight. It also must include procedures for handling anomalies that occur during countdown and any constraints to initiation of flight, for delaying or holding a launch when necessary, and for resolving issues. It must identify each person by position who approves the corrective actions, and each person by position who performs each operation or specific action. It also must include a written countdown checklist that must include, among other items, verification that all launch safety rules and launch commit criteria have been satisfied. In case of a launch abort or delay, the countdown plan must identify each condition that must exist in order attempt another launch, including a schedule depicting the flow of tasks and events in relation to when the abort or delay occurred and the new planned launch time, and identify each interface and entity needed to support recovery operations. Currently § 415.37(a)(2) requires that the applicant file procedures that ensure mission constraints, rules and abort procedures are listed and consolidated in a safety directive or notebook. Similarly, the mission readiness requirements of § 431.37(a)(2) require that procedures that ensure mission constraints, rules, and abort plans are listed and consolidated in a safety directive notebook.

Currently some operators have paper notebooks containing all the checklists and countdown plans. These notebooks are updated frequently, even up to the day before a launch with change pages by every member of the launch team. This process can sometimes lead to confusion and configuration issues. Other operators have electronic systems that contain all the checklists and countdown procedures. There are many advantages to electronic records, such as ease of dissemination and configuration control. As electronic file use becomes more common, the need for a physical notebook becomes unnecessary. What is critical for safety is that all launch personnel have the same set of procedures. Due to the dynamic nature of countdown procedures, operators provide checklists and procedures used in prior launches to meet the application requirements. The FAA evaluates these checklists and procedures during the license evaluation. However, because the checklists and procedures being evaluated are not final, operators must submit all updates to these documents as part of the continuing accuracy of the license requirements. FAA inspectors ensure the checklists and procedures are the most current, and that configuration control is maintained.

The FAA proposes to streamline the current countdown procedures and requirements in §§ 415.37(a)(2), 417.111(l), and 431.39(a)(2) and replace them in § 450.159 (Preflight Procedures). In doing so, the FAA proposes to remove the requirements for safety directives or safety notebooks and for a countdown plan, and the requirement to file such plans because there are many methods of documenting the preflight procedures that do not involve a plan or notebook. Although the proposed preflight procedures would not be required to be submitted as part of the license application process, FAA inspectors would still ensure that such preflight procedures are implemented.

Unlike the current regulations, the FAA proposes a performance-based requirement where an operator would need to implement preflight procedures would verify that all flight commit criteria are satisfied before flight and that ensure the operator is capable of returning the vehicle to a safe state after a countdown abort or delay.[101] This aligns with the intent of current regulations while permitting flexibility on how the safety goal is achieved. As a result, there would be no impact on safety resulting from the removal of the current prescriptive requirements.

Additionally, proposed § 450.159(b) would require an operator to ensure the currency of the preflight procedures, and that all personnel are working with the approved version of the preflight

[100] *NTSB Special Investigation Report: Commercial Space Launch Incident, Launch Procedure Anomaly Orbital Science Corporation, Pegasus/SCD–1, 80 Nautical Miles East of Cape Canaveral, Florida* (February 9, 1993); at p. 53.

[101] A countdown abort includes launch scrubs, recycle operations, hang-fires, or any instance in which the launch vehicle does not lift-off after a command to initiate flight has been sent.

procedures, similar to the current requirement in §§ 415.37(a)(3) and 431.39(c). The FAA would preserve these requirements because all key participants must work from the same preflight procedures in order to avoid a mishap.

The FAA anticipates that the current requirements of § 417.111(l)(1) through (6) would be a means of compliance under the proposal, but not the only means of compliance. By allowing alternative means of compliance, the proposed regulations would provide greater operational flexibility and procedure streamlining across all operation types.

8. Surveillance and Publication of Hazard Areas

The FAA proposes to adopt surveillance of a flight hazard area regulations based on recent granted waivers and to better align with current practices at the Federal launch ranges, where most commercial launches take place, and to codify current practice that eliminates unnecessary launch delays while maintaining public safety. This proposal would only alter the substantive requirements applicable to the surveillance of ship (waterborne vessel) hazard areas not the surveillance of land or aircraft hazard areas. Therefore, this discussion will focus primarily on the proposal's effect on the surveillance of waterborne vessel hazard areas. The specific requirements for conducting a flight hazard area analysis are discussed later in the preamble.

Current regulations on establishing and surveilling hazard areas, including ship hazard areas, for ELVs are found in §§ 417.205 [102] and 417.223 [103] and part 417, appendix B.[104] Part 431 does not set explicit requirements for the surveillance of waterborne vessel hazard areas, and the FAA has not yet issued a license under part 431 over water. However, both §§ 417.107(b)(2) and 431.35(b)(1)(ii) require that an operator ensure all members of the public are cleared of all regions, whether land, sea, or air, where any individual would be exposed to more than 1×10^{-6} P_C. Although not explicit, the current regulations for ELV and RLV operations effectively require surveillance and evacuation of all regions where the individual risk criterion would be violated by the presence of any member of the public.

The net effects of the current ELV regulations are: (1) An operator must establish a ship hazard area sufficient to ensure the P_I for any ship does not exceed 1×10^{-5} for any debris that could cause a casualty, (2) an operator must monitor the ship hazard area prior to initiating the flight operation, and (3) if a large enough ship enters the waterborne vessel hazard area to exceed the 1×10^{-5} P_I criterion, then the launch must be scrubbed or delayed until the ship exits the hazard area. Appendix B to part 417 directs a launch operator to evacuate and monitor each launch site hazard area to ensure compliance with the risk criteria in § 417.107(b)(2) and (3) and provide an adequate methodology to achieve this end. The FAA designed this methodology to be consistent with Air Force range safety requirements in 2006 and to ensure that the cumulative P_I to any ships would not exceed 1×10^{-5} for any debris expected to exceed the kinetic energy or overpressure thresholds established by § 417.107(c).

Current § 417.223(b) requires public notices for flight hazard areas. A flight hazard area analysis must establish the ship hazard areas for notices to mariners that encompass the three-sigma impact dispersion area for each planned debris impact.[105] Section 417.121(e) contains procedural requirements for issuing notices to mariners (and airmen). Furthermore, § 417.111(j) requires a launch operator to implement a plan that defines the process for ensuring that any unauthorized persons, ships, trains, aircraft or other vehicles are not within any hazard areas identified by the FSA or the ground safety analysis. In the plan, the launch operator must list each hazard area that requires surveillance to meet §§ 417.107 and 417.223, as well as describe how the launch operator will provide for day-of-flight surveillance of the flight hazard area to ensure that the presence of any member of the public in or near a flight hazard area is consistent with flight commit criteria developed for each launch. In practice, these regulations have been comprehensive enough to ensure public safety, but at times overly prescriptive and unduly conservative.

The FAA has waived several waterborne vessel protection requirements [106] in light of advanced ship monitoring technology and risk calculation models. The FAA's first waiver of the § 417.107(b)(3) requirement illustrates the need for this proposed change.[107] In approving the first waiver and numerous subsequent waivers to enable the proposed option, the FAA assessed the technological advances previously discussed. In this assessment, the FAA reviewed the Federal launch range input data and probabilistic casualty models that the Air Force at the 45th Space Wing uses to quantify individual and collective risks to people on waterborne vessels during the launch countdown for space launch missions. The FAA found that the 45th Space Wing's public risk analyses use accurate data and scientific methods that are mathematically valid, with reasonably conservative assumptions applied in areas where significant uncertainty exists. In that instance, the FAA performed independent analyses using alternative methods to estimate the casualty risks for multiple foreseeable scenarios involving debris impacts on various types of waterborne vessels and found that large passenger vessels anywhere between the launch point and the first stage disposal zone can contribute significantly to the estimated E_C from a launch. The FAA also found that small boats (too small to have Automatic Identification System (AIS) required [108]) located close to the launch point should not produce significant individual risks. However, no past waivers involved changes in the areas where surveillance was mandatory in current practice, only where ships were allowed to be present in order for the launch to proceed.

Section 450.161 (Surveillance and Publication of Hazard Areas) would require an operator to publicize, survey, and evacuate each flight hazard area before initiating flight or reentry, to the extent necessary to ensure compliance with proposed § 450.101. Proposed § 450.161(a) does not change the need for surveillance relative to the current requirements in parts 417 or 431 for people on land or aircraft because the proposal would continue to require that

[102] Section 417.205 requires the flight safety analysis to employ risk assessment, hazard isolation, or a combination of risk assessment and partial isolation of the hazards to demonstrate control of risk to the public.

[103] Section 417.223 requires, in part, that an FSA include a flight hazard area analysis that identifies any regions of land, sea, or air that must be surveyed, publicized, controlled, or evacuated in order to control the risk to the public from debris impact hazards.

[104] Section B417.5(a) of appendix B to part 417 states that a launch operator must perform a launch site hazard area analysis that protects the public, aircraft, and ships from the hazardous activities in the vicinity of the launch site.

[105] In addition, a flight hazard area analysis must establish the aircraft hazard areas for notices to airmen that encompass the 3-sigma impact dispersion volume for each planned debris impact.

[106] For example, see *Waivers of Ship Protection Probability of Impact Requirement,* 81 FR 28930 (May 10, 2016).

[107] 81 FR 28930 (May 10, 2016).

[108] AIS is required on commercial vessels 65 feet in length or more, towing vessels 26 feet in length or more, and other self-propelled vessels certified to carry more than 150 passengers or carrying dangerous cargo.

an operator ensure all regions where any individual member of the public would be exposed to more than 1×10^{-6} P_C are evacuated. However, the proposal would remove the requirement to evacuate and monitor areas where a waterborne vessel would be exposed to greater than 1×10^{-5} P_I currently required by Appendix B to part 417, paragraph 417.5(a).

The FAA proposal to include people on ships in the collective risk computation (see proposed § 450.101(a)(1) and (b)(1)) would explicitly allow the application of risk management principles to protect people on waterborne vessels. For example, an applicant could apply conservative estimates of the ship traffic and vulnerability to demonstrate acceptable public risks. In proposed § 450.161(a), surveillance would only be required to the extent necessary to ensure compliance with the public safety criteria, including individual and collective risks as well as notification of planned impacts from normal flight events capable of causing a casualty. For instance, an operator would not need to perform surveillance of areas where the risk to any individual would be no more than 1×10^{-6} P_C, unless surveillance was necessary to ensure acceptable collective risks.

The proposal would generally allow operators the option to use the current approach in part 417, where surveillance is required to ensure no ship is exposed to more than 1×10^{-5} P_I, because that would generally be sufficient to ensure compliance with proposed § 450.101. In addition, the proposal would also provide the option for launch and reentry operators to use the new technology, including modern surveillance techniques, and include people in waterborne vessels as part of the collective risk calculation as approved by previous waivers.[109] Current practice is to issue waivers to operators as an alternative to scrubbing or delaying a launch or reentry due to waterborne vessels in an area where the P_I exceeds 1×10^{-5}. Thus, the proposal would curtail the need for waivers.

While the proposal would relax the current part 417 requirement to ensure that no ship is exposed to more the 1×10^{-5} PI, the FAA notes that the requirement to ensure no ships are present in areas where the individual risk exceeds 1×10^{-6} P_C is consistent with international guidelines. The International Maritime Organization (IMO) is the United Nations organization for safety and environmental protection regulations for maritime activities. The IMO has developed a risk-based approach to safety and environmental protection regulations, which identifies a key threshold of one in a million (1×10^{-6}) probability of fatality per year for individual crewmembers, passengers, and members of the public ashore (considered third parties by the IMO). The IMO guidelines equate individual risks at the 1×10^{-6} probability of fatality per year as broadly acceptable for maritime activities, and specifically state that individual risks below this level are negligible and no risk reduction required. The proposed § 450.101(a)(2) and (b)(2) requirements would ensure that no person will be present on ships where the individual risk exceeds 1×10^{-6} P_C . This requirement is consistent, and reasonably conservative, with respect to the IMO guidelines as explained in the RCC 321–07 Supplement.[110] Thus, the FAA proposes to codify requirements for the development and surveillance of ship hazard area that are reasonably consistent with IMO guidelines for formal safety assessments.

As previously discussed, there were important advances in ship surveillance techniques in recent years. In the past, observation techniques posed significant risks to launch operators. For example, the only known deaths related to launch operations at Cape Canaveral were five occupants of a helicopter that crashed at sea shortly after 2 a.m. on April 7, 1984, while flying surface surveillance for the scheduled launch of a Trident 1 missile from the USS Georgia.[111] In many cases, the proposal would relieve the requirement for the type of surveillance that posed significant risks to launch operators in the past.

Section 450.161(b) would require surveillance sufficient to verify or update the assumptions, input data, and results of the flight safety analyses. Given there are numerous assumptions and input data that are critical to the validity of the flight safety analyses, this requirement could have a variety of surveillance implications beyond the surveillance necessary to ensure the public exposure at the time of the operation is consistent with the assumptions and input data for the flight safety analyses. For example, an FSA could assume that a jettisoned stage remains intact to impact or breaks up into numerous pieces that are all capable of causing casualties to people in a class of aircraft (*e.g.,* business jets). An operator would be required to employ some type of surveillance (*e.g.,* telemetry data, or remote sensors such as a camera or radar) to verify that the jettisoned stage behaves as assumed by the FSA if that behavior is germane to the size of the aircraft hazard area.

Additionally, § 450.161(c) would require an applicant to publicize warnings for each flight hazard area, except for regions of land, sea, or air under the control of the vehicle or site operator or other entity by agreement. If the operator relies on another entity to publicize these warnings, the proposal requires the operator to verify that the warnings have been issued. The FAA notes that some operators already follow this practice. The proposed requirements would allow warnings that are consistent with current practice but would also allow more flexibility for warnings to mariners in accordance with proposed § 450.133(b). Notably, § 450.133(b)(1) would be consistent with current practice at the Federal launch ranges based on input from the CSWG, and § 450.133(b)(2) and (3) are based on current U.S. Government consensus standards).[112] Proposed § 450.161(d) would also require an applicant to describe how it will provide for day-of-flight surveillance of flight hazard areas, if necessary, to ensure that the presence of any member of the public in or near a flight hazard area is consistent with flight commit criteria developed for each launch or reentry.

This proposal is consistent with the executive branch policy to replace prescriptive requirements with performance-based criteria.[113] Specifically, the FAA proposes to replace the ''one-size-fits-all'' approach to ship protection that effectively prevents launch or reentry operations to proceed if ships are in identified hazard areas irrespective of the estimated risks posed to people on those vessels. For example, during the launch of the Falcon 9 from CCAFS to deliver the SES–9 payload to orbit, SpaceX was delayed by the presence of a tug boat towing a large barge inside the ship hazard area in compliance with the FAA's requirement in § 417.107(b) to limit the P_I for waterborne vessels to 1×10^{-5}.[114] Under the proposal, delays such as this would be avoided without the need for waivers. The FAA proposes to replace the ''one-size-fits-all'' approach with the performance-based criteria of the collective and individual

[109] 81 FR 28930 (May 10, 2016).

[110] *Range Commanders Council Risk Committee of the Range Safety Group, Common Risk Criteria for National Test Ranges: Supplement.* RCC 321–07 Supplement, White Sands Missile Range, New Mexico, 2007, p. 5–50.

[111] *Air Force News Print Today* (Apr. 8, 2011).

[112] RCC 321–17 Standard.

[113] *SPD–2* (May 24, 2018), at Section 2b.

[114] 81 FR 28930 (May 10, 2016).

risk limits in proposed § 450.101, and in doing so would require an operational delay only when necessary to ensure acceptable individual and collective risks. This approach was safely and successfully used, by waiver, for all Falcon 9 launches from the CCAFS and KSC starting in 2016. The FAA seeks comment on the proposed approach.

Application of public risk management for the protection of people in waterborne vessels has the potential for reducing launch costs by reducing the number of operational delays and scrubs due to ships in areas where the individual and collective risks are nevertheless acceptable. Because it is a major procurer of launch services, reduced launch costs would be of direct benefit to the U.S. Government. It would also help to make the U.S. launch industry more competitive internationally by reducing launch delays and scrubs.

9. Lightning Hazard Mitigation

The FAA proposes to remove appendix G to part 417 and replace it with the performance-based requirements of § 450.163 (Lightning Hazard Mitigation). The current requirements in appendix G to part 417 are outdated, inflexible, overly conservative, and not explicitly applicable to many RLVs and reentry vehicles.

Lightning is an atmospheric discharge of electricity, and can either occur naturally or be ''triggered.'' Triggered lightning can be initiated as a result of a launch vehicle and its electrically-conductive exhaust plume passing through a strong pre-existing electric field.[115] However, the triggering phenomenon is unpredictable because there are many conditions that must occur in order for the breakdown of the electric field resulting in a lightning strike to occur. One condition is the enhancement factor of the launch or reentry vehicle that acts as a conductor. The extremities of the vehicle, such as the nose radius of curvature coupled with the effective length of the vehicle (taking into account the plume length) will establish the viability of a lightning strike. Furthermore, a launch vehicle's propellants will have different conductivity characteristics, leading to varying lengths;[116] as a result, not every vehicle will trigger a lightning strike under the same environmental conditions. This unpredictability is exacerbated further by the fact that a triggered lightning strike can occur even when the vehicle is penetrating a benign cloud, or is outside a cloud that is not producing lightning.

Lightning can and has caused or necessitated the destruction of launch and reentry vehicles in flight. This destruction may occur both by physical damage (direct effect) to structural or electronic components from lightning attachment to the vehicle and by damage or upset to electronic systems from a nearby discharge (indirect effect). The direct and indirect effects of a lightning discharge pose hazards to the safety critical systems of launch and reentry vehicles, such as the FSS. If damage to the vehicle's safety critical components renders it inoperable or causes safety-critical systems to malfunction, there may be no way to stop the vehicle from reaching the public. For example, the damage may cause the command signal that instructs the vehicle to stop thrusting, or to abort the mission, to not be received.

Two such triggered lightning events occurred in 1969 and 1987, during ascent. In 1969, when a manned Apollo XII[117] vehicle lost power to its Command Module, the launch was seconds away from beginning initiation of its abort command. In 1987, an unmanned ELV lost its guidance, navigation and control[118] and began careening towards the range safety impact limit lines. The range safety officer had to terminate its flight.

These two incidents led to the establishment of the present-day lightning launch commit criteria (LLCC), which the Air Force and NASA adhere to for all launches from a Federal launch range. The Lightning Advisory Panel (LAP),[119] an advisory body to the Air Force and NASA, is responsible for reviewing and proposing modifications to the LLCC. Adherence to the LLCC has resulted in zero lightning-caused launch incidents for over thirty years.

The FAA codified the LLCC into Appendix G to part 417 to address concerns that the direct and indirect effects of a natural or triggered lightning strike may disable a vehicle's FSS such that the launch operator could not stop the vehicle if it veered outside the impact limit lines (*i.e.,* due to degraded signal). The FAA renamed these requirements to ''Lightning Flight Commit Criteria'' (LFCC).

The LFCC in appendix G to part 417 consist of 10 natural and triggered lightning avoidance rules that provide criteria to minimize the risk of a launch vehicle being struck by lightning or triggering lightning. One rule contains criteria for avoiding natural lightning, the remaining nine contain avoidance criteria for triggering or initiating lightning when flying through, or near, specific cloud types or phenomena known to produce natural or triggered lightning. Taking into account the electrification process and the properties of electric fields within clouds, the triggered lightning rules establish time and distance requirements for distinct cloud types (*e.g.,* cumulus cloud, attached or detached anvil cloud, thick clouds) believed to contain the necessary environmental conditions to produce elevated electric fields. These time and distance criteria help mitigate the threat of triggering lightning by increasing the probability that the electric field, at a given distance or after a length of time, will be below the threshold needed to produce lightning. Other rules contain prescriptive requirements and thresholds for not launching if there are high-surface electric fields as measured by a ground-based field mill, or if there is a threat of a vehicle becoming charged if it penetrates a cloud that contains frozen precipitation.[120]

Unfortunately, codifying the LLCC into appendix G of part 417 has led to two major challenges. First, because the science behind triggering lightning is not fully known, the criteria were developed with a margin of safety for large ELVs, such as the Titan IV. As a consequence, the criteria may be overly conservative for certain types of vehicles. While the LAP has updated the LLCC to keep pace with the advances in science and technology, the FAA rulemaking process is lengthy, and does not permit appendix G to be updated with the frequency necessary to keep up with the changes to the LLCCs. Revisions to appendix G are likely to be

[115] Roeder, William P. and Todd M. McNamara, *A Survey Of The Lightning Launch Commit Criteria,* American Meteorological Society, Aviation Range and Meteorology Conference.

[116] E. P. Krider, M. C. Noogle, M. A. Uman, and R. E. Orville. ''Lightning and the Apollo 17/Saturn V Exhaust Plume,'' *Journal of Spacecraft and Rockets,* Vol. 11, No. 2 (1974), p. 72–75.

[117] Merceret *et al.,* ed., *A History of the Lightning Launch Commit Criteria and the Lightning Advisory Panel for America's Space Program.* NASA/TP–2010–216283, 10, Section 2.3 (August 2010).

[118] Merceret *et al.*, ed., *A History of the Lightning Launch Commit Criteria and the Lightning Advisory Panel for America's Space Program.* NASA/TP–2010–216283, 31, Section 4.3.2 (August 2010).

[119] The LAP's expertise range from in-depth knowledge of the physics of lightning, electric fields, and clouds, to lightning impacts on launch vehicles and statistics of electric field strength in specific environmental conditions. Its membership is primarily academia, although the Air Force and NASA fund this organization.

[120] Triboelectrification is a phenomenon that can occur when a launch vehicle flies through a region in a cloud that contains frozen precipitation. Under the right conditions, frozen precipitation can deposit a charge on the vehicle. If the launch vehicle is not treated, an electrostatic discharge could result.

out-of-date by the time they are finalized and published. As a result, appendix G preserves much of the original LLCCs outdated standards, which leaves a discrepancy between the LLCC and appendix G.

In an effort to address this issue, the FAA made four ELOS determinations. The first ELOS determination permitted the use of a new maximum radar reflectivity method [121] to determine whether the radar reflectivity values were below the risk threshold for triggering lightning in the cloud. Because this new measurement technique was not in appendix G, the launch operator could not benefit from this improvement unless it requested and received approval to use this technique rather than follow the criteria currently in appendix G. The ELOS determination relieved the burden on the operator to seek approval to use a different radar reflectivity measurement process; therefore, allowing more opportunity for the launch operator to take advantage of the improvement rather than wait until a final rulemaking incorporated the change.

When the LAP updated the LLCCs again, the FAA issued a second ELOS determination reducing the distance requirement for the flight path of the launch vehicle in relation to a thick cloud, if the radar reflectivity thresholds were satisfied.[122] The issuance of this ELOS determination was necessary to enable operators to use the most recent thick cloud rule without needing to seek individual ELOS determinations from the FAA or waiting for the FAA to update appendix G through a rulemaking.

The third ELOS determination also resulted from an update to the LLCCs and allowed for use of a shorter radar wavelength to measure radar reflectivity if the criteria for attenuation due to rainfall and beam spreading were met. This modification allowed a launch operator to make use of weather radars that have wavelengths between 3 and 5 cm, in addition to radars with wavelengths of 5 cm or greater. Similar to the other ELOS determinations, this relieved the burden from the operator to seek approval from the FAA, and allowed the operator to immediately use different radar wavelengths or wait until the FAA updated appendix G.

The fourth ELOS determination informed the launch operator that satisfying NASA–STD–4010 would meet the requirements of appendix G to part 417.[123] This ELOS determination enabled an operator to use the more up-to-date LLCC in place of the outdated LFCC in appendix G. It also recognized that the NASA–STD–4010 contained the most current LLCCs and removed the burden from the FAA to issue an ELOS determination for every new update to the LLCC.

The FAA only codified the LFCCs into part 417, and not parts 431 and 435. While the LFCCs are not explicitly included in part 431 or 435, § 431.35(c) requires an applicant to employ a system safety process to identify and mitigate hazards, including lightning. Additionally, while not all launch and reentry vehicles have the same threshold to trigger lightning, they do have the potential to incur direct or indirect effects that may impact their safety critical systems. Therefore, in order to protect public health and safety, the LFCCs are an appropriate mitigation strategy for suborbital RLVs and reentry vehicles that can induce lightning that could affect public safety. In 2006, the FAA sponsored a study to conduct a triggered lightning risk assessment for five different concept suborbital RLVs, from two different launch sites, to gain an understanding of the potential risk of triggering lightning for these new categories of vehicles.[124] The study took into account the vehicle design, mission profile, and propellants, as well as the lightning climatology of a given launch site. In 2010,[125] a follow-on study was performed for four concept vehicles at a total of four different launch sites.[126] The study showed that all concept vehicles had a much higher triggering threshold (*i.e.,* it was harder to initiate lightning) than that of a Titan IV ELV and that they each had different triggering thresholds within each concept vehicle and phase of mission. For instance, the glide phase was shown to have a higher triggering threshold than a powered phase. On the other hand, the study noted that many uncertainties remain with understanding the triggering conditions. Therefore, the results of the study recommended that until more accurate triggering thresholds for the differing vehicle concepts can be quantified, the avoidance criteria should be followed. The FAA requests comments on this proposal.

The ARC recommended the intent or performance goal of the current LFCC be captured into performance-based requirements that allow for the consideration of each launcher's mission profile, general vehicle and flight safety system components, and other factors that may reduce the currently-required 30-minute wait.[127] The ARC also recommended that the prescriptive requirements in Appendix G be placed in a guidance document that provides acceptable means of meeting the performance-based requirements. Finally, the ARC estimated that launch and site operators could save hundreds of thousands of dollars, or more, for each avoidance of launch scrubs and no-go calls due to unnecessarily conservative weather restrictions.

The FAA generally agrees with the ARC's recommendation and proposes to replace the detailed prescriptive LFCC in appendix G with performance-based requirements in proposed § 450.163. It would also provide an AC that contains an accepted means of compliance with the proposed § 450.163(a)(1), including reference to NASA–STD–4010 [128] and would also include other relevant standards for the design of a vehicle to withstand the direct and indirect effects of a lightning discharge. The FAA seeks comment on this approach.

The FAA anticipates that a performance-based regulation, accompanied by an associated AC and government standards, would resolve

[121] This radar reflectivity method allowed measurement of a hydrometeor by a radar with a wavelength of less than 5 centimeters but greater than 3 centimeters if: (1) The surface of the radome of the radar was hydrophobic and the precipitation rate at the radar site was less than 15 mm/hr (0.59 in/hr) rainfall equivalent, and (2) For each point that was measured, the horizontal extent of composite radar reflectivity greater than lOdBZ along the line of sight between the radar and the point did not exceed the reflectivity extent in kilometers for a 3 cm radar due to radar beam attenuation.

[122] The Launch operator can launch within 5nm of a thick cloud layer if the radar reflectivity is below 0 dBZ.

[123] The NASA–STD–4010 has been adopted by both NASA and the Air Force. When NASA published the LLCCs in a NASA Standard document it provided uniform engineering and technical requirements in one location lessening confusion to which version of the LLCCs were currently being applied.

[124] Krider, Phil, E. *et al., Triggered Lightning Risk Assessment for Reusable Launch Vehicles at the Southwest Regional and Oklahoma Spaceports, Report No: ATR–2006(5195)–1,* Jan 30, 2006 (*https://www.faa.gov/about/office_org/headquarters_offices/ast/reports_studies/media/ATR-2006(5195)-1.pdf).*

[125] Krider, Phil, E., *et al., Triggered Lightning Risk Assessment for Reusable Launch Vehicles at Four Regional Spaceports, Report No: ATR–2010(4387)–1,* Apr 30, 2010. (*https://www.faa.gov/about/office_org/headquarters_offices/ast/reports_studies/media/ATR-2010%20(5387)-1.pdf*).

[127] The ARC stated, ''intent or performance goal, of the stated requirements.'' The FAA has interpreted the phrase ''of the stated requirements'' to mean of the current LFCC found in appendix G to part 417.

[128] NASA–STD–4010 is the current lighting launch commit criteria employed by NASA and the Air Force. The FAA uses this standard as its basis for the requirements in Appendix G and has issued a broad-based ELOS determination allowing an operator to comply with the current NASA–STD–4010 instead of the existing Appendix G which is outdated.

many of the issues with the current Appendix G. While a thorough understanding of whether a given launch vehicle and its mission profile will trigger lightning is far from being understood, a performance-based requirement for mitigating natural and triggered lightning strikes or encountering a nearby lightning discharge would allow an operator to use up-to-date lightning avoidance criteria without having to wait for the regulation to be updated, or for the FAA to issue an ELOS determination or a waiver.

The intent of the current requirements found in Appendix G to part 417 is to avoid and mitigate natural and triggered lightning. Under the proposed regulations, the FAA would require operators to avoid and mitigate the potential for intercepting or initiating lightning strike or encountering discharge through implementation of flight commit criteria. Alternatively, an operator would be able to use a vehicle designed to continue safe flight if struck by lightning or encountering a nearby discharge. Finally, an operator would be able to comply with the proposed regulation by ensuring that compliance with public safety criteria would be met in the event of a lightning strike on the vehicle.

Proposed § 450.163(a)(1), would require an operator to mitigate the potential for a vehicle to intercept or initiate a lightning strike or encounter a nearby discharge through flight commit criteria using a means of compliance accepted by the Administrator. Currently, the FAA is only aware of one standard, NASA–STD–4010, that is currently acceptable and would satisfy the requirements of proposed § 450.163(a)(1). While FAA anticipates that industry might develop new standards as technology advances, such standards would be required to be submitted as alternative means of compliance under § 450.35 (Accepted Means of Compliance) paragraph (c) and accepted by the Administrator prior to use. If an operator were to submit an alternative means of compliance to NASA–STD–4010, the proposed lightning standard would need to be evaluated and accepted by the FAA, including any consultation with outside expert, prior to being used in any license application using the new standard.

The FAA anticipates that this revision would provide more flexibility to an operator than the current appendix G, which prescribes the specific lightning flight commit criteria that an operator must use. While the only method currently accepted by the Administrator is NASA–STD–4010, operators would have the flexibility to propose lightning flight commit criteria based on a certain vehicle's mission profile (*e.g.,* whether it is a piloted RLV launching a payload to low Earth orbit, or a piloted suborbital reusable launch vehicle with spaceflight participants on board).[129] However, as previously discussed, such a proposed means of compliance would need to be accepted prior to being used in a license application to satisfy proposed § 450.165(a)(1).

An operator may choose instead to mitigate lightning strikes and the initiation of lighting by using a vehicle designed to continue safe flight in the event of a lightning strike, in accordance with proposed § 450.163(a)(2). To accomplish this, an operator would need to demonstrate that the vehicle design adheres to design standards for lightning protection of the vehicle and its safety critical systems. The FAA is currently evaluating current aircraft lightning protection standards, such as AC 20–136B and AC20–107B, to determine whether a launch or reentry vehicle designed to those standards would allow for the continued safe flight of the vehicle.[130] The FAA anticipates that it would accept other industry standards for lightning protection or certification standards during vehicle design, such as SAE Aerospace Recommended Practices, or European Organization for Civil Aviation Equipment, as an acceptable means of compliance to proposed § 450.163(a)(2).

Finally, an operator would be able to choose to comply with proposed § 450.163(c) by ensuring that it would be in compliance with the public safety criteria of proposed § 450.101 should it encounter discharge or take a direct lightning strike. The use of physical containment as a hazard control strategy would be a prime example, but other scenarios may also apply.

Section 450.163 would apply to all launch and reentry vehicles, including ELVs, RLVs, hybrids, and reentry vehicles. Because the proposed requirement is performance based, each operator would be able to provide lightning mitigation methods designed for a specific vehicle's mission profile. Under § 450.163, the FAA anticipates that an operator would be able to apply new research findings or methodologies in a more timely manner than under appendix G. Further, the FAA would be able to update guidance materials in a timely manner to include those means of compliance that result from advances in science, information, or technology. Additionally, the FAA believes that, by providing an operator with the flexibility to mitigate natural and triggered lightning strikes through standards and best practices, the operators could avoid costly delays resulting from compliance with the requirements in the current appendix G.

Section 450.163(b) would establish application requirements. To comply with proposed § 450.163(a)(1), an applicant would be required to submit lightning flight commit criteria that mitigate the potential for a launch or reentry vehicle intercepting or initiating a lightning strike, or encountering a nearby discharge using a means of compliance accepted by the Administrator. As previously discussed, the only current method to comply with § 450.165(a)(1) would be to use NASA–STD–4010. If an applicant chooses instead to comply with § 450.163(a)(2), it would be required to provide documentation demonstrating that the vehicle is designed to protect safety critical systems, such as electrical and electronic systems, or FSSs. The FAA anticipates that this documentation would include proof and validation that the vehicle has followed lightning protections standards that would protect the vehicle's safety critical systems from a direct or indirect lightning discharge. If an applicant chooses to comply with § 450.163(a)(3), it would be required to provide documentation demonstrating compliance with § 450.101 in the event of a lightning discharge. As previously discussed, the FAA expects that this would be demonstrated through any number of analyses that validate that the vehicle is able to control individual and collective risk to the public,

The FAA considered using direct measurement of the electric field within a cloud as an option for a launch operator to comply with proposed § 450.163. However, it is the FAA's understanding that there is currently no consensus among the scientific community on the electric field value threshold to initiate lightning. Without a definite threshold value, the FAA would not be able to make a safety determination if an operator were to take direct measurements of the electric field. In addition, further research and data is required to establish procedures for measuring within the cloud, for how many measurements to make within a

[129] The piloted vehicles can control and maneuver the vehicle leading up the release point or area thus limiting the exposure of the vehicle to elevated electric fields upon its launch.

[130] AC 20–136B, *Aircraft Electrical and Electronic Lightning System Lightning Protection,* provides information and guidance on the protection of aircraft electrical and electronic systems from the effects of lightning. AC 20–107B, provides information and guidance on composite aircraft structure.

period of time or distance from the cloud, and such other considerations. Nevertheless, given the performance-based nature of § 450.163, it is possible that in the future, an accepted means for obtaining real time electric field readings along the flight profile could lead to less restrictive criteria.

10. Flight Safety Rules

In proposed § 450.165, an operator would be required to establish and observe flight safety rules that govern the conduct of each launch or reentry. These would include flight commit criteria and flight abort rules.

i. Flight Commit Criteria

The FAA proposes to consolidate the flight-commit criteria requirements currently contained in parts 417, 431, and 435. Flight-commit criteria are conditions necessary prior to the flight of a launch vehicle or the reentry of a reentry vehicle to ensure that the launch or reentry does not exceed the public safety criteria in proposed § 450.101. Although this proposal restates flight-commit requirements differently than the current regulations, the changes would not alter substantive requirements, and are intended solely for clarification purposes.

The ELV launch requirements for flight readiness are contained in §§ 415.37 and 417.113. Section 415.37 requires an applicant to file procedures for verifying readiness for safe flight, which result in flight-commit criteria. Section 417.113(c) requires that the launch safety rules include flight-commit criteria that identify each condition that must be met in order to initiate flight. The flight-commit criteria must implement the FSA; for a launch that uses an FSS, must ensure that the FSS is ready for flight; and for each launch, must document the actual conditions used for the flight-commit criteria at the time of lift-off and verify whether the flight-commit criteria are satisfied.

Flight-commit criteria for launch and reentry of a reusable launch vehicle are contained in §§ 431.37 and 431.39, and by extension in § 435.33 for the reentry of a reentry vehicle other than a RLV. Unlike part 417, the parts 431 and 435 requirements are performance-based and required as part of the system safety analysis requirements.

Flight-commit criteria-related requirements appear throughout proposed part 450. The main requirements would be found in §§ 450.155, 450.159, and 450.165. Section 450.155 would require an operator to document and implement procedures to assess readiness to proceed with the flight of a launch or reentry vehicle. Proposed § 450.159 would require an operator to implement preflight procedures to verify that each flight-commit criterion has been met before initiating flight.

Proposed § 450.165 would mandate that an operator's flight safety rules include flight-commit criteria identifying each condition necessary prior to initiating flight to satisfy proposed § 450.101. These commit criteria would include surveillance, monitoring of meteorological conditions, implementing window closures for the purpose of collision avoidance, monitoring the status of any flight safety system, and any other hazard controls derived from system safety, software safety, or flight safety analyses. Also, for any reentry vehicle, the commit criteria would include monitoring the status of safety-critical systems before enabling reentry flight.

Part 450 also includes requirements to develop flight-commit criteria based on the results of various analysis. For instance, § 450.135 (Debris Risk Analysis) would require operators to demonstrate compliance with public safety criteria in proposed § 450.101. In § 450.137, the far-field overpressure blast effect analysis would have to demonstrate compliance with public safety criteria in proposed § 450.101. Sections 450.139 (Toxic Hazards for Flight) and 450.187 (Toxic Hazards Mitigation for Ground Operations) would require an operator to derive flight-commit criteria based on the results of its toxic release hazard analysis, containment analysis, or toxic risk assessment to ensure any necessary evacuation of the public from any toxic hazard area prior to flight. Proposed § 450.141 (Wind Weighting for the Flight of an Unguided Suborbital Launch Vehicle) would require an operator to establish flight-commit criteria that control the risk to the public from potential adverse effects from normal and malfunctioning flight. Proposed § 450.161 would require an applicant to describe how it will provide for day-of-flight surveillance of flight hazard areas, if necessary, to ensure that the presence of any member of the public in or near a flight hazard area is consistent with flight-commit criteria. Section 450.163 would require an operator to derive flight-commit criteria that mitigate the potential for a launch or reentry vehicle intercepting or initiating a lightning strike, or encountering a nearby discharge. Finally, § 450.169 (Launch and Reentry Collision Avoidance Analysis) would require an operator use the results of the collision avoidance analysis to develop flight-commit criteria for collision avoidance.

ii. Flight Abort Rules

The FAA proposes to include flight abort rules as part of proposed flight safety rules in § 450.165. Flight abort rules apply to a vehicle that uses an FSS and are the conditions under which an FSS must abort the flight to ensure compliance with flight safety criteria. Current regulations in parts 417 and 431 address flight abort rules.

Section 417.113(d) sets flight termination rules for ELVs. It requires operators to identify the conditions under which the FSS, including the functions of the flight safety system crew, must terminate flight to ensure public safety. The flight termination rules must implement the FSA, and specifically requires operators to terminate flight in the following six scenarios:

1. When real-time data indicate a flight safety limit has been reached.
2. At the straight-up time if the vehicle flies straight up.
3. If the vehicle becomes erratic and may endanger protected areas, while potentially losing control of the flight safety system.
4. No later than at the expiration of the data loss flight time if tracking data is lost.
5. If a vehicle is performing erratically prior to entering an overflight gate, or if the vehicle is not flying parallel to or converging to the nominal trajectory prior to entering a gate.
6. If a vehicle is performing erratically prior to entering a hold gate, or if the vehicle is not flying parallel to or converging to the nominal trajectory prior to entering a hold gate.

Some of these current requirements may be overly prescriptive. For example, flight abort at the straight-up time is only one method of mitigating risk to the launch area in the event of a vehicle that fails to program and flies straight up. Although other methods may mitigate risk to an acceptable level, under the current requirements, an operator would be forced to abort flight at the straight up time. Also, the rules for allowing vehicles to enter gates are too subjective and not easily tied to specific hazards.

Part 431, applicable to RLVs, does not impose specific flight abort rules. However, § 431.39(a) requires an applicant to submit mission rules and contingency abort plans that ensure safe conduct of mission operations during nominal and non-nominal vehicle flight. These would encompass flight abort rules because § 401.5 defines contingency abort as the cessation of

vehicle flight during ascent or descent in a manner that does not jeopardize public health and safety and the safety of property, in accordance with mission rules and procedures. Part 431 requires flight abort when needed to mitigate risk and a set of rules to that end, yet does so without following part 417's more detailed and prescriptive approach. In practice, orbital rockets licensed under part 431 have used an AFSS with flight abort rules that are conservatively consistent with the six scenarios identified in 417.113(d), when applicable (*e.g.,* no straight-up time for a horizontal launch).

Section 450.165(c) lays out the proposed consolidation and clarification of flight abort rules. Although the FAA would maintain much of § 417.113(d)'s structure and requirements, the FAA looked for opportunities to replace prescriptive requirements with outcome objectives. The FAA would require operators to develop flight abort rules to comply with the public safety criteria of § 450.101, as well as to prevent debris capable of causing a casualty from impacting in uncontrolled areas if the vehicle is outside the limits of a useful mission. Operators would also need to identify the functions of any flight abort crew, as specifically required in part 417. This is also consistent with the FAA's practice in implementing part 431. Although not specifically stated in § 431.39(a), the FAA has required operators to identify crew functions. The FAA proposes to eliminate the straight-up rule, as it is not reasonable to include the rule at the exclusion of other existing mitigation options. Also, the FAA proposes to simplify the current requirements for gate passage to allow a vehicle to pass through a gate if it can achieve a useful mission. This would allow the operator to specify which vehicle parameters are the most useful for determining whether a vehicle should be allowed to enter a gate. For orbital launches, vehicles unable to achieve orbit cannot achieve a useful mission and should be terminated. The FAA would delete separate requirements for hold-and-resume gates, as analysis should show which types of gates are most effective for the proposed flight, and those should be implemented.

These proposed rules, which would be similar to those from part 417, were chosen over the generic requirement for mission rules from part 431 because they correspond to other sections in the proposed rule describing flight safety limits, gates, and other requirements. This is consistent with the ARC's recommendation to change part 431 to better capture the intent of the flight abort rules. An operator should balance potentially competing objectives as necessary to minimize risk when writing specific flight abort rules. For example, if there is a rule to destruct a vehicle to prevent an intact impact in order to reduce distant focused overpressure risk, the operator should also consider the resulting risk to aircraft when establishing the timing of the destruct action.

Proposed § 450.165(d) lays out the application requirements for flight safety rules. For flight commit criteria, the FAA would require an applicant to provide a list of all flight commit criteria. These would include any criteria related to surveillance, monitoring of meteorological conditions, implementation of launch or reentry windows closures for the purpose of collision avoidance, confirmation that any safety-critical system is ready for flight, monitoring of safety-critical systems prior to enabling re-entry flight, and any other hazard controls. For flight abort rules, the FAA would require an applicant to provide a description of each rule, and the parameters that will be used to evaluate each rule, as well as a list that identifies the rules necessary for compliance with each requirement in § 450.101. All conditions in which flight abort action would be taken must be described, as well as rules and conditions allowing flight to continue past a gate. Lastly, the FAA would require an applicant to provide a description of the vehicle data that will be available to evaluate flight abort rules across the range of normal and malfunctioning flight. This information is necessary to ensure that compliance with the flight abort rules is achievable.

11. Tracking

The FAA proposes to adopt vehicle tracking requirements. Specifically, proposed § 450.167 (Tracking) would require an operator to measure and record in real time the position and velocity of the vehicle. The system used to track the vehicle would be required to provide data to determine the actual impact locations of all stages and components, and to obtain vehicle performance data for comparison with the preflight performance predictions. The proposed requirements would be consistent with current practice for a wide variety of vehicles, including the widespread use of telemetry data, and various requirements of parts 417, 431, and 437.

Current regulations for ELVs require a vehicle tracking system as part of the FSS. For example, in § 417.113(c), as part of the flight commit criteria for a launch that uses an FSS, readiness for flight includes that the launch vehicle tracking system has no less than two tracking sources prior to lift-off. Also, the launch vehicle tracking system must have no less than one verified tracking source at all times from lift-off to orbit insertion for an orbital launch, to the end of powered flight for a suborbital launch. Of course, the need for tracking is implicit in other requirements for launch of a vehicle with an FSS, including the requirements regarding data loss flight times in § 417.219.

Section § 417.125 also requires an operator of an unguided suborbital launch vehicle to track the flight of its vehicle. Specifically, § 417.125(f) requires an operator to provide data to determine the actual impact locations of all stages and components, to verify the effectiveness of a launch operator's wind weighting safety system, and to obtain rocket performance data for comparison with the preflight performance predictions.

Part 431 has no explicit requirements related to tracking. However, currently every operation licensed under part 431 is required to employ a telemetry system that provides, among other safety critical information, data on the position and velocity of the vehicle in real-time. In addition, the one orbital RLV operation licensed to date employed an FSS and established data loss flight times. The use of data loss flight times is an explicit recognition that a vehicle without tracking poses a potential hazard to the public.

Tracking is also required under Experimental Permit regulations. Under § 437.67, an operator must, during permitted flight, measure in real-time the position and velocity of its reusable suborbital rocket. The requirements for an operator to measure in real time the position and velocity of its rocket, coupled with the requirement to communicate with ATC during all phases of flight, are intended (among other things) to provide ATC with enough information to protect the public if the vehicle flies outside its planned trajectory envelope.

Tracking data sufficient to identify the location of any vehicle impacts following an unplanned event are necessary to ensure a proper response to an emergency. Specifically, a launch operator must implement its mishap response plan if an unplanned event occurring during the flight of a launch vehicle results in the impact of a launch vehicle, its payload or any component thereof outside designated impact limit lines for an expendable launch vehicle; and, for an RLV, outside a designated landing site. More generally, vehicle-

tracking data provide a level of awareness that enables an appropriate response to an off-nominal situation, such as knowing where to apply fire suppression resources or where to evacuate the public to protect against predicted toxic plumes. More specifically, tracking data are an important element of current U.S. Government consensus standards, in accordance with RCC 321, to ensure the safety of people in aircraft. Specifically, since 2007, RCC 321 has included a requirement (in paragraph 3.3.4) to coordinate with the FAA to ensure timely notification of any expected air traffic hazard associated with range activities. In the event of a mishap, RCC 321 requires that the operator must immediately inform the FAA of the volume and duration of airspace where an aircraft hazard is predicted.[131]

Tracking data are also necessary to evaluate vehicle safety performance, even for normal flight. For example, § 417.125(g)(3) requires a launch operator of an unguided suborbital launch vehicle to compare the actual and predicted nominal performance (*i.e.*, trajectory) of the vehicle. Accurate data to describe the vehicle normal trajectory envelope are necessary for valid quantitative public risk assessments.

Current practice demonstrates that tracking data will help facilitate safe and efficient integration of launch and reentry operations into the NAS. The increasingly congested and constrained NAS creates a need to transition from segregation, to full integration of space vehicles. The FAA has several efforts underway to ensure the safe and efficient transition of launch and reentry vehicles through the NAS, while minimizing the effects of these operations on other users of the NAS. The FAA has contemplated the need to obtain real time data tracking data, including vehicle state vectors, reports of mission events, and indications of vehicle status, to help accomplish this. However, the FAA is deferring that discussion until after the Airspace Access Priorities ARC.[132]

Proposed § 450.167(a) would require an operator to measure and record in real time the position and velocity of the vehicle. The system used to track the vehicle would need to provide data to determine the actual impact locations of all stages and components, and to obtain vehicle performance data for comparison with the preflight performance predictions. The proposed requirements are consistent with current practice for a wide variety of vehicles, including the widespread use of telemetry data, and various requirements levied under parts 417, 431, and 437.

Proposed § 450.167(a) would consolidate and standardize the current regulatory requirements for vehicle tracking-related information. Vehicle-tracking data facilitate appropriate emergency responses, and an ability to determine the actual vehicle impact locations due to an unplanned event is critical to evaluate the class of mishap. Comparison of the actual vehicle safety performance, such as the trajectory, with preflight predictions helps ensure the continued accuracy of the FSA input, and thus the validity of the public risk assessments and hazard areas. A comparison of the actual vehicle safety performance data to predict performance provides the FAA with a means to evaluate an operator's understanding of its safety margins, which is a measure of maturity of the operation and thus a potential factor in the probability of failure analysis.

Proposed § 450.167(b) would require an applicant to identify and describe each method or system used to meet the tracking requirements of proposed § 450.167(a) of this section. Because the proposed requirements are consistent with current practice, and in some cases less restrictive, the application requirements would not increase burden on license applicants.

12. Launch and Reentry Collision Avoidance Analysis Requirements

The FAA proposes to modernize the launch and reentry collision avoidance analysis criteria to match current common practice and provide better protection for inhabitable and active orbiting objects. It would also allow launch and reentry operators to obtain a launch collision avoidance analysis from Federal entities identified by the FAA. Previously, the FAA established identical rules for expendable launches from Federal and non-Federal launch ranges, RLV operations, and permitted launch operations. The proposed rule would consolidate launch and reentry collision avoidance analysis requirements from these three different parts into a single safety rule.

The FAA anticipates that proposed changes to the collision avoidance analysis criteria would not significantly affect operators. The changes would capture current practice, provide alternative means of meeting existing requirements, and clarify the time period that the analysis must address.

Launch and reentry collision avoidance measures are necessary actions for responsible and safe launches and reentries. Under current regulations, a launch collision avoidance analysis is performed prior to each launch to protect against collision with only inhabitable objects, including the International Space Station, as required screening objects. It is important to avoid collisions during launches because the energy released through an impact during launch would most likely be catastrophic for the launch vehicle and the object it impacted.

In addition to mission assurance, to ensure the successful launch of an object, there are significant reasons to mitigate debris creation through collision avoidance. Launch collision avoidance analysis occurs prior to launch and entails the determination of times when a launch should not be initiated. There is a balance between launch opportunities and orbital safety that must be established to protect both the launch vehicle and on-orbit objects. Reentry collision avoidance analysis occurs prior to the initiation of a reentry maneuver and provides for the review of the maneuver trajectory to establish when reentry should not be initiated. Section 431.43(c)(1)(ii) documents the requirement for reentry collision avoidance.

The creation of orbital debris is an expected result of a collision during launch or reentry.[133] As stated earlier, limiting orbital debris is a vital part of protecting the space environment and is a national objective. Therefore, the FAA believes it is paramount to avoid all collisions during launch and reentry. The Department of Defense created a tiered level of separation distance to avoid collisions and still allow ample opportunity for launch. The FAA agrees with the tiers, identified in the chart below. This chart excludes the object launching or reentering, which would be damaged or destroyed in all cases.

[131] Range Commanders Council, *Common Risk Criteria for National Test Ranges,* RCC 321–07, White Sands Missile Range, New Mexico, 2007.

[132] Information regarding the Airspace Access Priorities ARC is available at *https://www.faa.gov/regulations_policies/rulemaking/committees/documents/index.cfm/document/information/documentID/3443.*

[133] Orbital debris is all human-generated debris in Earth orbit that is greater than 5 mm in any dimension. This includes, but is not limited to, payloads that can no longer perform their mission, rocket bodies and other hardware (*e.g.,* bolt fragments and covers) left in orbit as a result of normal launch and operational activities, and fragmentation debris produced by failure or collision. Gases and liquids in free state are not considered orbital debris.

FIGURE 2—LAUNCH COLLISION AVOIDANCE JUSTIFICATIONS AND TIERS

	Separation distance	Protect public health and safety	Safety of property	U.S. national security or foreign policy interests	International obligations	Avoid debris generation
Inhabitable Objects	200 km	Yes	Yes	Yes	Yes	Yes.
Active Satellites	25 km		Yes	Yes	Yes	Yes.
Trackable Debris >10 cm^2 (LEO).	2.5 km			Yes, if it creates significant debris.	Yes, if it creates significant debris.	Yes.
Un-trackable Debris <10 cm^2 (LEO).	Not applicable					Protect with shielding & design.

With space becoming more congested every year, it is vitally important for launch or reentry collision avoidance to extend beyond inhabitable objects to include all active orbiting objects and trackable orbital debris. Records from a recent Intelsat launch showed that if the launch occurred 35 minutes into the 2-hour launch window, the launch vehicle could have passed by a defunct but still orbiting COSMOS navigation satellite by only 600 meters. The FAA believes not proposing launch collision avoidance in this instance is unnecessarily hazardous.

Sections 417.107(e), 417.231, and 437.65 require launch operators to ensure that the launch vehicle does not pass closer than 200 km (approximately 124 statute miles) to a manned or mannable orbital object to avoid collisions during launch. A collision avoidance analysis must be obtained through a Federal entity. The analysis must be used to determine any launch holds to avoid potential collisions.

In § 417.107(e), a launch operator must ensure that a launch vehicle, any jettisoned component, and its payload do not pass closer than 200 km to a manned or mannable orbital object throughout a sub-orbital launch, and for an orbital launch, during ascent to initial orbital insertion and through at least one complete orbit, and during each subsequent orbital maneuver or burn from initial park orbit, or direct ascent to a higher or interplanetary orbit, or until clear of all manned or mannable objects, whichever occurs first. A launch operator is also required under § 417.107(e) to obtain a collision avoidance analysis for each launch from United States Strategic Command or from a Federal launch range having an approved launch site safety assessment. The detailed requirements for obtaining a collision avoidance analysis are found in § 417.231 and section A417.31 of appendix A to part 417. The results of the collision avoidance analysis must be used to develop flight commit criteria for collision avoidance as required by § 417.113(c).

These requirements and processes for ascertaining launch collision avoidance are unnecessarily complicated and are inconsistent with the current practices executed at Federal launch ranges that provides an equivalent level of safety. The current practice is to use a common analysis time frame instead of a single orbit as identified in the current regulations. The safety standard for the standoff distance of 200 km remains consistent throughout launch (and reentry) requirements for launches of expendable and reusable launch vehicles and for launches from both Federal launch ranges as well as non-Federal launch sites.

Section 417.231 requires a launch operator to include in its flight safety analysis a collision avoidance analysis that (1) establishes each launch wait in a planned launch window during which a launch operator must not initiate a flight in order to protect any manned or mannable orbiting object, and (2) accounts for uncertainties associated with launch vehicle performance and timing and ensures that any calculated launch waits incorporate additional time periods associated with such uncertainties. It also requires the launch operator to implement any launch waits into its flight commit criteria under § 417.113(c) to ensure that the operator's launch vehicle, any jettisoned components, and its payload do not pass closer than 200 km to a manned or mannable orbiting object during ascent to initial orbital insertion through one complete orbit. Further, under § 417.231 no collision avoidance analysis is required if the maximum altitude attainable, using an optimized trajectory, assuming 3-sigma maximum performance, by a launch operator's unguided suborbital launch vehicle is less than the altitude of the lowest manned or mannable orbiting object. Appendices A, section A417.31, and C, section C417.11, of part 417 provide constraints for performing the collision avoidance analysis as part of the flight safety analysis required by § 417.231. Section 437.65 establishes the minimum required altitude as 150 km, which is the current standard practice.

Section 431.43(c)(1) and (3) also requires a collision avoidance analysis for RLVs to be performed to maintain at least a 200 km separation from any inhabitable orbiting object during launch and reentry. It requires the analysis to address closures in a planned launch window for ascent to outer space for an orbital RLV to initial orbit through at least one complete orbit; for reentry, the reentry trajectory; and expansions for the closure period. For reentry of vehicles not part of a reusable system, § 435.33 refers to part 431, subpart C, including § 431.43(c)(1) as a requirement.

Appendix A to part 415 contains a worksheet for the data input for launch. However, Appendix A to part 415 is a U.S. Space Command form that is no longer in use.[134] The current practice is to submit the launch collision avoidance analysis data prior to launch in a form and manner accepted by the Administrator, which is currently the R–15 launch plan worksheet. The data collected on the R–15 launch plan worksheet are detailed in sections A417.31 and C417.11 and are used by the agency performing the launch collision avoidance analysis.

A number of issues are unclear or outdated under section A417.31. In section A417.31(c)(8), the option to use an ellipsoidal screening method does not identify the size of the ellipsoid required. Section A417.31(b)(3) limits an operator to use collision avoidance analysis (COLA) products to 12 hours from when ''manned'' objects were last tracked. This information is not provided to launch or reentry operators and therefore is not implemented in the current practices. Section A417.31(b)(4) and (c)(7) also includes two expansions of window closures. The first expansion is for every 90 minutes, a 15 second buffer should be added before and after the provided window closures, and the second is a 10-minute addition to the screening time. Neither of these practices are currently implemented at Federal launch ranges or non-Federal launch sites.

With proposed § 450.169 and appendix A to part 450, the FAA would align the collision avoidance analysis

[134] The U.S. Space Command was deactivated in 2002.

criteria with current practice and provide better protection for inhabitable and active orbiting objects. The FAA also proposes to allow a launch operator to obtain a collision avoidance analysis from a Federal entity identified by the FAA. The proposed changes balance increased options and additional requirements and would allow more flexibility and accuracy in avoiding collision with orbiting objects.

The FAA also proposes to remove appendix A to part 415 in its entirety because the Launch Notification Form is no longer used by the FAA or launch operators. The data is currently collected via the R–15 work sheet and associated trajectory files and is detailed in sections A417.31 and C417.11. Sections A417.31 and C417.11 would be replaced with appendix A to part 450, which would contain the Collision Analysis Worksheet information requirements and captures current practice.

The FAA proposes a few format and editorial changes in the collision avoidance requirements of proposed § 450.169. First, the proposal would refer to ''inhabitable'' rather than ''manned or mannable'' objects for greater simplicity and ease of understanding. Similarly, the proposal would refer to ''separation distances'' rather than ''miss distances,'' as this terminology is more accurate and better connotes the FAA's goal of maintaining a safe separation of objects on orbit. Finally, the proposal would refer to ''window closures'' for launch and reentry rather than ''waits'' in a launch or reentry window to provide a more cogent and accurate description. These updated terms would have the same meaning as the terms they replace.[135]

Substantively, the FAA proposes to consolidate the launch and reentry collision avoidance analysis requirements into proposed § 450.169. Proposed § 450.169(a) would require, for orbital or suborbital launch or reentry, an operator to establish any window closures needed to ensure that the vehicle, any jettisoned components, or payload meet the specified requirements of that section. When performing a launch or reentry collision avoidance analysis for inhabitable objects, under proposed § 450.169(a)(1), an operator would have two alternatives in addition to maintaining a spherical separation distance. An operator would be able to stipulate an ellipsoidal rather than a spherical separation distance between its vehicle and an inhabitable object or satisfy a probability of collision threshold rather than calculating a separation distance. The FAA also would maintain the current requirement to maintain a spherical separation distance as a third option. These proposed requirements are discussed more fully later in this section.

The FAA also proposes to require that a collision avoidance analysis address other orbiting objects, such as active spacecraft and tracked debris. The uninhabitable active objects would be protected with significantly less restrictive clearance distances than provided to inhabitable objects. This would require no extra work from the operators, including those from non-Federal launch sites. Additionally, no launches have been scrubbed for COLA closures, and the FAA does not anticipate any impact to future operations due to this requirement.

Proposed § 450.169(b) would require an operator to ensure that the requirements of proposed § 450.169(a) are met for the durations specified. Specifically, proposed § 450.169(b)(1) would require screening through the entire flight of a suborbital vehicle. Proposed § 450.169(b)(2) would standardize the time period of the launch collision avoidance analysis for an orbital launch to ascent from a minimum of 150 km to initial orbital insertion and for a minimum of 3 hours from liftoff. Proposed § 450.169(b)(3) would identify the screening time frame for reentry as the time frame from initial reentry burn to an altitude of 150 km. Similarly, proposed § 450.169(b)(4) would cover a disposal reentry with the same altitude.

Proposed § 450.169(c) would establish that planned rendezvous operations that occur within the screening time frame are not considered a violation of collision avoidance if the involved operators have pre-coordinated the rendezvous or close approach.

Proposed § 450.169(d) would establish the exclusion of collision avoidance for launch vehicles that do not reach a maximum altitude of 150 km. The FAA also proposes to change from a 3-sigma maximum performance established in current § C417.11 and replace it with maximum performance within 99.7% confidence level, extended through fuel exhaustion of each stage. The intention of the 3-sigma rule was the use of a 99.7% confidence level. However, the 3-sigma rule does not hold true (the same percentage confidence level) when the analysis adds multiple dimensions. Therefore, the FAA proposes the requirement with 99.7% confidence level instead of the 3-sigma rule in the existing regulation.

In proposed § 450.169(e) an operator would be required to obtain a collision avoidance analysis for each launch or reentry from a Federal entity identified by the FAA. An operator would be required to use the results of the collision avoidance analysis to establish flight commit criteria for collision avoidance, account for uncertainties associated with launch or reentry vehicle performance and timing, and ensure that each window closure incorporates all additional time periods associated with such uncertainties. This latter proposed requirement would remove outdated practices from the launch collision avoidance requirements that are currently found in sections A417.31(c)(7)(iv) and C417.11(d)(7)(iv), which require adding 10 minutes to the screen duration time, sections A417.31(b)(4) and C417.11(c)(4) and § 431.43(c)(1)(iii) which require adding 15-second buffers to the launch window closures, and appendix A to part 415 which is a redundant form to the worksheet specified in sections A417.31 and C417.11. The current practices no longer require a 10-minute extra pad as the screening time is no longer a single orbit. Also, the 15-second buffers are no longer required because the service provider accounts for the accuracy of the result products and the 15-second buffers were based upon the last time the orbital objects were tracked. The launch operator is not responsible for tracking orbital objects and is not provided data on when the orbital objects were last tracked making the existing requirement difficult to apply. The launch or reentry operator would only be required to account for uncertainties associated with launch or reentry vehicle performance and timing in accordance with proposed § 450.169(e)(2). This is consistent with the existing requirement in § 417.231(a).

In proposed § 450.169(f), the FAA would require an operator to prepare a collision avoidance analysis worksheet for each launch or reentry using a standardized format that contains the input data required by appendix A to part 450. Proposed § 450.169(f)(1) would require an operator to file the input data with a Federal entity identified by the FAA and the FAA at least 15 days before the first attempt at the flight of a launch vehicle or the reentry of a reentry vehicle or in a different time frame in accordance with proposed § 404.15. The FAA anticipates that it initially would identify the Air Force Space Command (AFSPC) as an entity

[135] The FAA recognizes reentry windows as a number of discrete or short duration windows during which a reentry may be commanded. Past experience shows window closures are insignificant for reentry. The safety requirements for launch or reentry window management are intended to be equitable.

with whom to file the collision avoidance analysis inputs.

The FAA also proposes to maintain the current 15-day requirement of sections A417.31(b)(1) and C417.11(c)(1) in proposed § 450.169(f)(1). The 15-day requirement is necessary for federal agencies to evaluate the content of the submission and ensure the trajectory files and data provide acceptable data and can be processed successfully. It would also allow federal agencies to determine early potential conjunctions with national systems or human space flight activities, and would provide adequate time for federal agencies to develop a strategy for early orbit detection and tracking including taskings to global sensors and expected trajectories for sensors to aid in initial acquisition.

Proposed § 450.169(f)(2) would require an operator to obtain a collision avoidance analysis performed by a Federal entity identified by the FAA 6 hours before the beginning of a launch or reentry window. This is consistent with existing sections A417.31(b)(2) and C417.11(c)(2).

Consistent with current sections A417.31(b)(3) and C417.11(c)(3), proposed § 450.169(f)(3) would require an operator that needs an updated collision avoidance analysis due to a launch or reentry delay to file the request with the Federal entity and the FAA at least 12 hours prior to the beginning of the new launch or reentry window. Additionally, the current regulations, sections A417.31(b)(3) and C417.11(c)(3), limit the use of products to 12 hours from the time U.S. Strategic Command determines the state vectors of manned or mannable objects. The FAA intends to remove this limitation, as launch or reentry operators are not provided with the last time of observation of inhabitable objects and therefore cannot determine a 12-hour expiration time. The removal of this requirement would place the responsibility on the service provider to provide the time frame that the analysis is valid. For most cases, the analysis would be valid for the entire launch or reentry window. However, an extremely long launch window or sporadic reentry window may require additional analysis. The service provider would identify to an operator when its analysis in no longer valid, which is similar in intent to the original 12-hour expiration time, but more flexible in its application.

i. Inhabitable Objects

Inhabitable objects are those that are or may be occupied by persons. An inhabitable object need not be inhabited, and the FAA views the term as encompassing any object that may be inhabited, regardless of whether it is at the time of launch. One point that merits clarification in light of inquiries the FAA has received—a launch operator's own vehicle, if it is inhabitable, does not impose a corresponding obligation on a space station to keep away from it. A launch operator whose vehicle carries people should not construe the requirement to mean that the operator must always keep the vehicle 200 km away from any other object. Current FAA regulations do not protect persons on board a launch or reentry vehicle.

Vehicles deliberately approaching each other for rendezvous or docking purposes will have to get within 200 km of each other. In these instances, collision avoidance remains paramount for those orbital objects other than the intended rendezvous spacecraft. Under proposed § 450.169(c), planned close approaches for rendezvous would not be considered violations of collision avoidance if the involved operators have previously coordinated the rendezvous. The proposed requirement to perform collision avoidance would apply during launches that have a rendezvous within the screening period and for licensed reentries that originate from orbiting spacecraft or objects. For planned reentry, coordinated close approaches and departures would not be considered violations of collision avoidance requirements if the involved operators have previously coordinated the operation.

ii. Probability of Collision

The FAA also proposes to amend the collision avoidance screening methods to include new options for analysis. The current regulation offers spherical or ellipsoidal screening, however, it fails to provide distances for ellipsoidal screening and identifies a spherical distance of 200 km as default. The FAA proposes an additional option of collision probability screening using a covariance matrix. A covariance matrix is a mathematical construct that describes the upper stage's position and the uncertainty of that position in all dimensions.

In proposed § 450.169(a)(1)(i), the FAA would permit a launch operator to employ a probability of collision of 1×10^{-6}, consistent with current Air Force practice, rather than relying solely on the spherical or ellipsoidal separation distance of 200 km currently required by section A417.31(c)(8)(i) and (ii) and § 431.43(c)(1). The spherical separation-distance option is the most conservative option and requires the least detail about the location of the launch vehicle and therefore results in the largest window closures. If launch operators have covariance—that is, uncertainty—information applicable to their nominal trajectories, the option of limiting the probability of collision allows for greater fidelity in avoiding a collision with inhabitable objects.

For collision probability screening, proposed § 450.169(a)(1)(i) would require a covariance information, typically provided in a matrix, that identifies the uncertainty of the launch vehicle trajectory. When an operator can provide sufficient covariance (as identified in proposed appendix A to part 450, paragraph (d)(3)), the probability of its collision with an inhabitable object can be accurately calculated and launch window closures can be limited to only those times where actual high risk exists. In essence, this fine-tuned launch collision avoidance would provide assurance against collisions while minimizing potential launch window closures.

The FAA proposes to allow the use of a probability of collision because the 18th Space Control Squadron's (SPCS) use of the proposed probability threshold has prevented collisions while still allowing for maximum availability of launch windows. The FAA agrees that using probability assessment adequately protects inhabitable spacecraft while maximizing the time available for launch. Probability of collision is also the preferred analysis method for reentry collision avoidance.

According to NASA,[136] the Department of Defense's 18th SPCS current practice for on-orbit debris regarding the ISS is to assess potential conjunctions inside specific-sized boxes centered on the ISS. Any object predicted to pass within this box is tracked with higher priority. The 18th SPCS then uses the best available data set to compute the probability of collision with the potentially-threatening catalogued object. If that probability is greater than 1×10^{-4}, the ISS performs a collision avoidance maneuver. If that probability is greater than 1×10^{-5}, then the ISS would perform a collision avoidance maneuver when doing so would not compromise its mission objectives. Additionally, the proposed requirements in § 450.169 for a launch and reentry collision avoidance probability of collision criteria of 1×10^{-6} against inhabitable

[136] *Operational Interface Procedures.* Volume A, Report Number SSP–50643–A, Section 7.16.2. Published June 28, 2003, and last modified October 17, 2008.

objects is consistent with current NASA practices.

iii. Separation Distance Calculations by Sphere or Ellipsoid

Section 417.231 currently requires a launch operator to ensure a separation distance of 200 km between its launch vehicle, any jettisoned components, or its payload, and an inhabitable object.[137] The regulation does not specify whether the separation distance must be spherical or may be ellipsoidal. Section A417.31(c)(8) of Appendix A does, however, permit a launch operator to use spherical or ellipsoidal screening. In practice, the 18th SPCS provided ellipsoidal distances in the standardized collision avoidance request form, and the FAA has allowed the 18th SPCS methods as acceptable for launch screening volumes. The FAA anticipates that identifying these options in proposed § 450.169(a) will reduce confusion and accurately capture the requirements for ellipsoidal screening. Additionally, the FAA's proposal would clarify that either method of calculation would be acceptable.

Using ellipsoidal separation calculation would permit a launch vehicle to come within a predicted 50 km from an inhabitable object in the cross-track and radial directions. The in-track distance would be maintained at 200 km. The result is an ellipse around the inhabitable object that looks approximately like a pencil with the tip in the direction of travel. In accordance with longstanding Federal range standards, the 50-km separation distance in the cross-track and radial directions would provide an equivalent level of safety compared to a separation distance based on a sphere because the uncertainty in orbital location is significantly less side-to-side than it is along the velocity vector. Because the velocity vector is greatest in-track, a small change in velocity results in a significant variation in arrival time, and therefore requires the greatest compensation (200 km). However variations in orbital altitude are possible, but occur at a significantly reduced rate, allowing the exclusion distance to be reduced to 50 km radially. Variations laterally are also minimal and require the smallest compensation, allowing the reduction to 50 km in the cross-track directions. The FAA agrees with the Federal range conclusions that the ellipsoidal calculation maintains an equivalent level of safety as the 200-km spherical calculation.

[137] 14 CFR 417.231(b).

iv. Collision Avoidance for Objects That Are Not Inhabitable

Sections A417.31(c)(8) and C417.11(d)(8) require that if a launch operator requests launch collision avoidance analysis for unmanned or unmannable objects, the analysis must use the spherical screening method with a separation distance of 25 km (approximately 15.5 statute miles). The screening was optional but, if used, the distance was mandated. The FAA proposes to alter the collision avoidance requirements for uninhabitable objects. Launches from federal ranges require screening for uninhabitable objects to meet Air Force or NASA requirements, therefore there most space launch operators are already familiar with the process and requirements. The FAA proposal creates a common standard for all commercial space launches.

In proposed § 450.169(a)(2) and (3), the screening for potential conjunctions would include avoidance of uninhabitable objects, active objects, and trackable debris. The required minimum separation distance would remain at 25 km, or a P_C of 1×10^{-5}, for active satellites. For those objects that are tracked and not active, such as debris, defunct rocket bodies, and dead or inactive satellites, for which the FAA currently has no requirement, the FAA proposes a required minimum separation distance of 2.5 km (approximately 1.6 statute miles), consistent with 18th SPCS screening practice. This proposed separation distance would provide increased safety for launches and reentries.

The proposed screening would coincide with the screening for inhabitable objects and would cover the same time frames. This is consistent with current 18th SPCS operational procedures.

Launch availability during the launch window is a concern of the FAA because excessive launch window closures could limit launch opportunities, increase the effects of prolonged airspace closures on aviation, and increase launch operations costs. The FAA analyzed previous U.S. launches—commercial, civil, and military—to determine the consequence to the launch window availability of adding uninhabitable objects as a mandatory launch collision avoidance requirement. Of the worldwide launches between September 2011 and June 2012, the maximum impact was the closing of approximately 12% of the launch window. The average impact was only 2% of each launch window closed due to launch collision avoidance accounting for both inhabitable and uninhabitable objects. This level of impact was validated for launch closures for launches conducted in 2017. The worst-case scenarios for launch collision avoidance are launches of low inclination that pass through the densest part of the low earth orbit (LEO) population, around 800 km (approximately 497 statute miles) in altitude. The FAA believes implementing collision avoidance for inhabitable objects, active satellites, and trackable debris would adequately prevent collisions without placing excessive restrictions on launch opportunities. The FAA seeks comment on the potential impact of implementing these requirements.

v. Accounting for A Conjunction Up to 3 Hours After Launch

The current FAA requirement for screening time is one orbit (at least 100 minutes) plus 10 minutes padding.[138] The current Federal screening practice at the 18th SPCS covers 3 hours. The FAA proposes to adopt 18th SPCS's current practice as the minimum standard to ensure the necessary level of safety to inhabitable and active space objects and to avoid the generation of space debris. Under proposed § 450.169(b), the collision avoidance analysis for orbital launches would have to account for a conjunction that could occur up to 3 hours after launch. This change would be in line with practices for Federal launches. In actual practice, the 18th SPCS performs an analysis from launch to about 3 hours against all objects and debris in the catalog. However, commercial launchers currently can request screening through only one orbit after launch.

Pre-launch collision avoidance analysis ensures there are no immediate conjunctions during orbital insertion and shortly thereafter but is dependent on pre-launch estimated trajectories. Extending this collision avoidance analysis to three hours post-launch provides sufficient time for creation of the first orbital element set (ELSET), at which point collision avoidance analysis begins being calculated using real positioning information. To create an ELSET, the Department of Defense uses multiple tracking information to establish the first ELSET and reduce the position error significantly. Once an ELSET has been created when the vehicle is on-orbit, an on-orbit collision avoidance analysis is routinely run out to 72 hours. Pre-launch collision avoidance analysis is the only possible method to prevent a collision until that first ELSET is created.

[138] 14 CFR 417.107(e)(1)(ii)(B).

There is a significant collision avoidance warning time gap between the end of 18th SPCS's 3-hour launch screening time and when 18th SPCS determines an ELSET. Pre-launch collision avoidance analysis beyond 3 hours is currently of limited utility. As positional errors based on predicted trajectories grow, data validity becomes increasingly suspect. Additionally, it is possible to create large launch window closures or even close the launch window entirely. Therefore, without a significant development in prediction calculation fidelity and accuracy, the FAA proposes to extend pre-launch collision avoidance to 3 hours. The accuracy of pre-launch collision avoidance analysis would be dependent on the accuracy of the trajectories provided.

This 3-hour extension is important to protect inhabitable objects on-orbit. The ISS incurs collision risk from every launch. There is a warning time gap between the end of the pre-launch collision avoidance analysis and the start of on-orbit collision analysis done by the 18th SPCS. Until the 18th SPCS can determine the ELSET, the location of upper stages, payloads, and any released debris is unknown. During that time, whether the ISS is at risk from a collision would also be unknown. Extending the pre-launch collision avoidance requirement from one orbit to 3 hours would codify current practice.

Additionally, although not required by FAA regulation, operators should promptly provide the 18th SPCS positional updates after orbital insertion until such time as the ELSET is established and on-orbit collision avoidance analysis commences.

The FAA proposes to remove the requirements to expand the collision avoidance analysis screening time by 10 minutes to ensure that the entire first orbit of the launch vehicle is screened in sections A417.31(c)(7)(iv) and C417.11(d)(7)(iv). The expanded screening time required by those appendices would be unnecessary if the FAA extends the screening to 3 hours as described in proposed § 450.169(b).

vi. Submitting Collision Avoidance Inputs to the FAA

Proposed § 450.169(f) would require a launch operator to submit launch collision avoidance trajectory data to both AFSPC and the FAA. The current regulations only requires an operator to submit the data to the AFSPC. However, the AFSPC does not review launch operator data to ensure it complies with FAA requirements. The proposal would ensure the FAA receives and reviews the same data that is provided to AFSPC for launch collision avoidance. As this data is generally submitted electronically, sending the data to both the FAA and AFSPC is not expected to increase cost or paperwork burden of the submission. Direct submission to AFSPC and the FAA will facilitate a quicker response to the operator than having the FAA act as a middleman between the operator and AFSPC, and enables coordination throughout the process.

In the past, the FAA has found discrepancies between operator trajectory data and operator requests to AFSPC for specific launch collision avoidance analysis methods. On multiple occasions, operators have misapplied existing launch collision avoidance regulations. To ensure proper application of launch collision avoidance regulations the FAA must be able to review the launch collision data. A specific example of a discrepancy occurred when a launch operator directed the exclusion of the ISS from launch collision avoidance analysis in a request to AFSPC. The launch operator incorrectly assumed the protections for the ISS, the ultimate destination for one of the launched payloads, did not apply. In actuality, the planned rendezvous with the station was days into the mission, and not all objects launched were planned to rendezvous with the ISS. Collision avoidance analysis should have been requested for all launched objects against the catalog of space objects, including the ISS. FAA review of launch collision avoidance trajectory data would have identified that oversight.

vii. Appendix A to Part 450—Collision Analysis Worksheet

The FAA proposes to consolidate the data input requirements of sections A417.31 and C417.11 and to clarify the data and process for collision avoidance in appendix A to part 450. Existing sections A417.31 and C417.11 provide nearly identical requirements for mission information. However, some elements are no longer useful or require an update to meet current practices. Specifically, proposed appendix A to part 450, paragraph (a)(1) mission name and launch location, paragraph (a)(2) launch or reentry window, paragraph (a)(3) epoch, time of powered flight, and point of contact remain the same as existing requirements. Proposed paragraph (a)(4) segment number has been updated to change the requirement to provide vector at injection to instead provide orbital parameters. The substantive requirement to identify how the operator would receive analysis results in current sections A417.31(c)(3) and C417.11(d)(3) also remains unchanged in proposed paragraph (b); however, minor editorial revisions were made to the examples of the transmission mediums provided to reflect modern technology.

The proposed rule provides clarifications for some data elements. Specifically, the FAA proposes to change the requirement to identify orbital objects to evaluate contained in section A417.31(c)(9). As written, section A417.31(c)(9) requires the operator to identify the orbiting objects to be included in the analysis. In all cases the analysis must include all objects. However, the current practice is to identify the characteristics of the orbiting object, *i.e.,* name, length, width, depth, diameter, and mass. The FAA proposes to capture current practice in proposed paragraph (a)(6). Also, the proposed appendix would replace ''vector at injection'' in sections A417.31(c)(5) and C417.11(d)(5), with orbital parameters at proposed paragraph (a)(5). The proposed change would require an operator to identify the orbital parameters for all objects achieving orbit including the parameters for each segment after thrust end instead of the vector at injection for each segment. This requirement would allow accurate COLA calculations that consider changes in trajectory after orbital insertion.

The FAA also proposes to clarify the trajectory file requirements in proposed paragraph (d) of appendix A to part 450. Sections A417.31(c)(5)(ii) and C417.11(d)(5)(ii) require that current operators provide position and velocity for each launched object after burnout or deployment. This requirement severely lacks in clarity and completeness. Proposed paragraph (d) would provide a clearer requirement in line with current practices. Launch and reentry operators would be required to provide trajectory files with position and velocity for each object through the entire screening process, not exclusively after burnout. The current practice at Federal ranges is to provide data through the entire screening process, therefore the FAA proposal is in line with current practices. Additionally, radar cross section and covariance (position and velocity) for probability of collision analysis would be required by proposed paragraph (d). These products are used in the analysis of potential collisions. Parts 431 and 437 require the same trajectory files for analysis, however the current regulations do not provide guidance on how to provide the products necessary to complete the analysis. Proposed § 450.169 and appendix A to part 450 would provide

the necessary guidance for all launch and reentry analysis.

Proposed (e) of appendix A to part 450 would provide the three possible screening methodologies—spherical, ellipsoidal, or probability of collision. These requirements were discussed previously in this section.

13. Safety at End of Launch

Proposed § 450.171 would include requirements aimed at preventing the creation of orbital debris. Proposed § 450.171(a) is the same as § 417.129 and substantively the same as § 431.43(c)(3), which require certain measures to be taken by a launch operator to prevent the creation of orbital debris. The FAA is not proposing to update the substantive requirements for orbital debris mitigation in this rulemaking because it plans to do so in a future rulemaking.

Proposed § 450.171(b) would require an applicant to demonstrate compliance with the requirements in § 450.171(a) in its application. This requirement is the same as § 415.133, which applies to applications for the launch of an ELV from a non-Federal launch site. Proposed § 450.171(b) would broaden the applicability of the application requirement to all launches. This is necessary because the importance of orbital debris mitigation has no relation to whether a launch takes place from a Federal or non-Federal launch site, or whether the launch vehicle is expendable or reusable. The expansion of the applicability of the application requirement is the only change related to orbital debris mitigation. As noted earlier, the substantive safety requirements remain the same.

14. Mishaps: Definition, Plan, Reporting, Response, Investigation, Test-Induced Damage

As a part of its streamlining efforts, the FAA proposes four mishap-related actions, including a revised definition of anomaly. First, the FAA proposes to consolidate the many chapter III mishap-related definitions into a mishap classification system. Second, this proposal would consolidate existing chapter III requirements for mishap, accident investigation, and emergency response plans, and clarify and streamline reporting requirements. Third, the FAA proposes to redefine the term ''anomaly'' and expand its application to include licensed, and not just permitted, activities. Fourth, the FAA proposes to exempt pre-coordinated test-induced damage to property involved with the test from being a mishap.

The FAA proposes using an overarching mishap classification system instead of separate terms for ''mishap,'' ''launch accident,'' ''reentry accident,'' ''launch incident,'' ''reentry incident,'' ''human space flight incident,'' and ''launch site accident.'' The proposed mishap classification system would streamline and clarify the current accident, incident, and mishap definitions to create four mishap categories organized by severity, from most severe (Class 1) to least severe (Class 4). This proposal would also eliminate the $25,000 monetary threshold from current ''mishap'' and accident terms. This proposal would consolidate parts 417 (Accident investigation plan), 420 (Launch site accident investigation plan), 431 and 435 (Mishap investigation plan and emergency response plan), and 437 (Mishap response plan), into a single section applicable to all types of licenses, permits, and vehicles.

Additionally, the FAA proposes to update the definition of the term ''anomaly'' and relocate it from part 437 to part 401, making it applicable to licensed and permitted activities. Finally, the FAA proposes to exclude pre-coordinated test activities, resulting in damage to property owned by the operator and associated with test activities, from mishap consideration. This test-induced damage proposal provides permittees and licensees the freedom to conduct test activities that may result in damage to associated property, and the freedom to test without the need for a mishap investigation for foreseeable test failures.

i. Mishap Definitions

The FAA currently uses a variety of terms to describe the occurrence of an unplanned event during commercial launch, reentry, and site activities. The term ''mishap'' is a broad term encompassing several of these unplanned events. Mishap, as currently defined in § 401.5, means a launch or reentry accident, launch or reentry incident, launch site accident, failure to complete a launch or reentry as planned, or an unplanned event or series of events resulting in a fatality or serious injury (as defined in 49 CFR 830.2), or resulting in greater than $25,000 worth of damage to a payload, a launch or reentry vehicle, a launch or reentry support facility, or government property located on the launch or reentry site.[139] As the definition shows, the term ''mishap'' captures 15 specific kinds of unplanned events,[140] including five types of accidents and incidents. These are launch accident, reentry accident, launch incident, reentry incident, and launch site accident. These terms are defined separately in §§ 401.5 and 420.5. Mishap also includes unplanned events resulting in failure to complete a mission as planned, a fatality or serious injury, or damages greater than $25,000 to certain property associated with the licensed or permitted activity.

The terms ''launch accident,'' ''reentry accident,'' and ''launch site accident,'' which are encompassed by the mishap definition, all include the occurrence of a fatality or serious injury to persons not associated with the activity and damage to property not associated with the activity exceeding $25,000. Unlike the term ''launch site accident,'' launch and reentry accidents account for the occurrence of a fatality or serious injury to a space flight participant or crew member during FAA-regulated activities. Other factors may also satisfy the various accident definitions. For instance, for launches involving an ELV, impacts of a launch vehicle, its payload, or any component thereof outside designated impact limit lines constitute an accident. If, however, the launch involves an RLV, impacts outside the designated landing site constitute an accident. In contrast, the definition for reentry accident makes no distinction between expendable and reusable vehicles. For reentry accidents, if the vehicle, its payload, or any component thereof lands outside a designated reentry site, the FAA deems it an accident.

Similarly, although launch incidents and reentry incidents are both incidents, their definitions consist of different requirements. Launch and reentry incidents occur due to the malfunction of a FSS or other safety-critical system, or a failure of the operator's safety organization, design or operations. The FAA proposes to consolidate these

[139] Section 401.5.

[140] (1) Launch accident; (2) reentry accident; (3) launch incident; (4) reentry incident; (5) launch site accident; (6) failure to complete a launch as planned; (7) failure to complete a reentry as planned; (8) an unplanned event resulting in a fatality; (9) an unplanned event resulting in a serious injury; (10) an unplanned event resulting in greater than $25,000 worth of damage to a payload; (11) an unplanned event resulting in greater than $25,000 worth of damage to a launch vehicle; (12) an unplanned event resulting in greater than $25,000 worth of damage to a reentry vehicle; (13) an unplanned event resulting in greater than $25,000 worth of damage to a launch support facility; (14) an unplanned event resulting in greater than $25,000 worth of damage to government property located on the launch site; or (15) an unplanned event resulting in greater than $25,000 worth of damage to a reentry site.

terms into a single mishap classification system eliminating the need for multiple terms.

Current definitions of mishap and accident also include a $25,000 monetary threshold that is arbitrary and outdated. Experience has shown that even minor damage that does not pose a threat to public safety can easily exceed the $25,000 monetary threshold, triggering potentially costly and burdensome notification, reporting, and investigation requirements. For example, a relatively minor unplanned event following a successful launch could result in damages to ground support equipment or launch facilities exceeding $25,000. The ARC noted the amount is outdated and does not necessarily reflect safety implications. Additionally, the conditions listed under the current definitions do not necessarily reflect the severity of consequences and associated public safety risks. A better mishap classification system would provide consistency of mishap thresholds and applicability to all types of operations, mitigating potential confusion. Rather than adding more definitions, the FAA would consolidate and replace the existing accident, incident, and mishap definitions with a mishap classification system that would be defined in § 401.5 and would apply to all licensed and permitted activities.

Under the proposed changes, ''mishap'' would mean any event, or series of events associated with a licensed or permitted activity, that meets the criteria of a Class 1, 2, 3 or 4 mishap. The FAA would use this overarching definition to describe any mishap type occurring during permitted or licensed activities regardless of classification or consequence threshold. The FAA's proposal was informed by existing NASA and Air Force mishap classification system definitions,[141] and NTSB definitions.[142]

A ''Class 1 mishap'' would mean any event resulting in a fatality or serious injury to any person who is not associated with the licensed or permitted activity (*e.g.,* members of the public) along with any space flight participant, crew, or government astronaut. The FAA would be adopting the definition of fatality or serious injury from 49 CFR 830.2. To constitute a Class 1 mishap, the fatality or injury must result from licensed or permitted activity, including ground operations at a launch or reentry site. A Class 1 mishap would be a mishap that has the highest consequences and greatest impact on public safety. The proposed Class 1 mishap definition would incorporate existing fatality and serious injury criteria from current ''launch accident,'' ''reentry accident'' and ''launch site accident'' definitions.

On November 25, 2015, the U.S Commercial Space Launch Competitiveness Act was signed into law (Pub. L. 114–90). This law amends 51 U.S.C. 50901(15) by inserting ''government astronauts'' after ''crew'' each place it appears. In accordance with this amendment, and to ensure Class 1 mishap criteria applies equally to all persons on board a launch or reentry vehicle, the FAA Class 1 mishap definition includes government astronauts. The definition would only cover fatalities or serious injuries to crew, Government astronauts, spaceflight participants, or uninvolved public. The definition of Class 1 mishap would not cover other persons associated with the launch or reentry, similar to the current accident definitions for which it replaces. The proposed Class 1 Mishap also consolidates existing accident definitions, which would include potential recovery site accidents that were previously not defined. The FAA proposes to define a ''Class 2 mishap'' as any unplanned event, other than a Class 1 mishap, resulting in a malfunction of a safety-critical system, a failure of the safety organization or procedures, substantial damage to property not associated with the operation, or a high risk of causing a serious or fatal injury to any space flight participant, crew, government astronaut, or member of the public. The Class 2 mishap definition would encompass the current definitions of a ''launch incident,'' ''reentry incident,'' and ''human space flight incident.'' The definition would use a substantial damage to uninvolved property requirement instead of the $25,000 damage threshold.

Under this proposal, the FAA would make a case-by-case determination whether the damage to public property is substantial. This evaluation may be based on, but not limited to, direct replacement cost, repair cost, and the property's intended use and functionality. For example, structural damage to public property exceeding 50 percent of its market value may be deemed as substantial damage. This approach potentially reduces the burden on the commercial space industry and Federal government by providing flexibility on the determination of substantial damage and the scope of the resulting investigation. This is consistent with the ARC feedback. Other criteria—such as events posing a high risk of causing a serious or fatal injury to any space flight participant, crew, government astronaut, or member of the public—are based on the existing ''human space flight incident'' definition and expanded to include government astronauts and members of the public. With this criterion, the FAA intends to cover events akin to a near miss in the aviation industry and is consistent with the Air Force and NASA practices. The addition of ''members of the public'' is consistent with the FAA's public safety mission. The FAA's goal is to evaluate the event type by impact to public safety.

The FAA proposes to define ''Class 3 mishap'' as any unplanned event, other than a Class 1 or Class 2 mishap, resulting in permanent loss of a vehicle during licensed activity or the impact of a vehicle, its payload, or any component thereof outside the planned landing site or impact area. This change would differentiate between licensed launches and reentries and permitted launches and reentries. The FAA believes this proposal captures the intent of the current mishap definition that includes the failure to complete a launch or reentry as planned criterion. At the same time, the separation of licensed and permitted operations between Class 3 and 4 mishaps is also consistent with ARC feedback.

The FAA would consider debris impacts outside of defined limits to meet the Class 3 mishap definition, provided the event did not satisfy the criteria of a Class 1 or 2 mishap. Impacts of launch vehicle debris outside designated impact limit lines are currently considered a launch accident.

The FAA proposes to define a ''Class 4 mishap'' as an unplanned event, other than a Class 1, Class 2, or Class 3 mishap, resulting in permanent loss of a vehicle during permitted activity, a failure to achieve mission objectives, or substantial damage associated with licensed or permitted activity. The FAA intends proposed ''Class 4 Mishap'' to capture other events with the potential for future public safety implications without directly affecting public safety during occurrence. For example, an operator may have complete loss of a permitted vehicle in a remote and unpopulated area. Although the loss may not have resulted in fatalities, serious injuries, or public property damage on this occasion, it is important to find the root cause of the mishap. Otherwise, if the operator does not identify and address the underlying

[141] NPR 8621.1C, *NASA Procedural Requirements for Mishap and Close Call Reporting, Investigating, and Recordkeeping.* Air Force Instruction 91–204, *Safety Investigation and Hazard Reporting.*

[142] As defined in 49 CFR 830.2.

cause, it may endanger public safety during a future launch in different conditions.

ii. Anomaly Definition

The FAA proposes to change the definition of ''anomaly'' and to move the definition to § 401.5, where it would apply to all of chapter III. Anomaly would mean any condition during a licensed or permitted activity that deviates from what is standard, normal, or expected, during the verification or operation of a system, subsystem, process, facility, or support equipment. The inclusion of anomaly in § 401.5 would clearly define the expectation of post-operation reporting for all licensed or permitted operations. It would also capture off-nominal events that do not fall under the thresholds of Class 1–4 mishaps as part of the required post-launch report.

The FAA currently defines anomaly only in part 437. Part 437 defines an anomaly as a problem that occurs during verification or operation of a system, subsystem, process, facility, or support equipment. Section 437.73 requires strict recording, reporting, and implementation of corrective actions in the event of a public safety related anomaly. Section 417.25(c)(1), applicable to ELVs, requires operators to report an anomaly that occurred during launch countdown and flight in the post-launch report but does not define anomaly. Although part 431 does not have specific anomaly reporting requirements, in practice, the FAA requires operators to report anomalies. To ensure anomaly reporting, the FAA has begun adding a term and condition to launch licenses requiring operators to report anomalies prior to the next launch. The FAA uses anomaly reporting to track vehicle-related issues and to ensure an operator mitigates those issues prior to future flights. Given that not all anomalies are identified during flight, the post-launch reporting requirement allows the operator to review countdown and flight data for off-nominal conditions and report any anomalous condition to the FAA as a part of the post-launch report.

Although an anomaly is defined in § 437.3, as ''a problem that occurs during verification or operation of a system, subsystem, process, facility, or support equipment,'' it is not defined in part 415, 417, 431, or 435, and hence, it is applicable only to experimental permits. However, § 417.25—Post launch report, requires an operator to ''identify any discrepancy or anomaly that occurred during the launch countdown or flight.'' The FAA is proposing to update the existing definition of an anomaly to ''any condition during a licensed or permitted activity that deviates from what is standard, normal, or expected, during the verification or operation of a system, subsystem, process, facility, or support equipment.'' The proposed definition seeks only to clarify what a ''problem'' is by adding ''deviates from what is standard, normal, or expected.''

iii. Mishaps—Reporting, Response, and Investigation Requirements

The FAA proposes to consolidate current chapter III mishap plan, reporting, response and investigation requirements into proposed § 450.173. The FAA seeks comment on its proposed approach, as discussed below, to mishap requirements, including reporting.

Current title 14 CFR chapter III requirements for mishap and accident reporting, response, and investigation requirements are inconsistent and create confusion. For that reason, the FAA's proposed changes would apply to mishap requirements for launch and reentry licenses, experimental permits, and launch and reentry site licenses. Proposed § 450.173 would replace §§ 417.111(h) (Accident Investigation Plan), 417.415(c) (Post launch and post flight hazard controls), and 431.45 (Mishap investigation plan and emergency response plan). The proposed mishap plan changes to §§ 420.59(a) (Mishap) and 437.41 (Mishap plan) would require an operator to meet the requirements of § 450.173.

The inconsistencies in the FAA's current regulatory scheme, including signature requirements for mishap plans, has led to much confusion. For example, § 417.111(h) requires an operator to implement a plan containing the launch operator's procedures for reporting and responding to launch accidents, launch incidents, or other mishaps. It also requires two signatures, one from an individual authorized to sign and certify the application, and another from the designated safety official. Similarly, § 420.59 requires that licensed launch site operators develop and implement a launch site accident investigation plan that contains the licensee's procedures for reporting, responding to, and investigating launch site accidents and for cooperating with Federal officials in case of a launch accident. It also requires a signature from an individual authorized to sign and certify the application, but not from the designated safety official like § 417.111(h). Current § 431.45 requires an RLV operator to submit a mishap investigation plan (MIP) containing the applicant's procedures for reporting and responding to launch and reentry accidents, launch and reentry incidents, or other mishaps that occur during the conduct of an RLV mission. It also requires that an RLV operator submit an emergency response plan (ERP) containing procedures for informing the affected public of a planned RLV mission. The FAA requires that an individual authorized to sign and certify the license application, the person responsible for the conduct of all licensed RLV mission activities, and the designated safety official, sign the MIP and ERP. In contrast, § 437.41 does not require any signatures. To ensure consistency between all title 14 CFR chapter III requirements, the FAA proposes to consolidate these requirements.

The ARC noted that reporting requirements for mishaps not involving a fatality or serious injury are unclear and left up to the operator to determine. The ARC said the FAA should define a minimum standard for a reportable mishap, in addition to a minimum set of investigation and reporting requirements, including information that should be provided during initial notification.

Current notification requirements are generally consistent for a launch, reentry, launch site accident, launch or reentry incident, or mishap involving a fatality or serious injury. In those instances, regulations throughout title 14 CFR chapter III require that operators provide immediate notification to the FAA's Washington Operations Center (WOC).[143] This is not the case when a mishap does not involve a fatality or serious injury.[144] For example, part 417 requires notification within 24 hours to the Associate Administrator for Commercial Space Transportation or to the FAA WOC in the event of a mishap that does not involve a fatality or serious injury. In contrast, parts 431 and 437 only require 24-hour notification to the Associate Administrator for Commercial Space Transportation, but not to the FAA WOC for a mishap that does not involve a fatality or serious injury. Current part 420 does not require a launch site operator to provide a 24-hour mishap notification. If a mishap occur during non-business hours, this raises the possibility that a launch operator may be unable to report it to the Associate Administrator for Commercial Space Transportation, which would create the potential for a

[143] 14 CFR 417.111(h)(1)(i), 420.59(b)(1), 431.45(b)(1), and 437.75(a)(1).

[144] 14 CFR 417.111(h)(1)(ii), 431.45(b)(2), and 437.75(a)(2).

non-compliance. To address these issues, the FAA proposes to provide a single source for all initial mishap notifications. The single source would be the FAA's WOC, a 24-hour, seven-day, operational facility.

Parts 417, 420, 431, and 437 all require an operator to submit a written preliminary report within five days [145] of either an accident or incident to the FAA, Associate Administrator for Commercial Space Transportation. The five-day report is a follow-up requirement designed to supplement initial mishap notification once more detailed information is known. Under the proposed mishap classification system and mishap plan requirements, all mishaps would have similar reporting requirements. The FAA believes the proposed mishap classification system would save the operator time and resources during the initial mishap response by eliminating the need to evaluate whether the event is an accident, incident, or mishap. This streamlining of reporting requirements reduces the burden of unclear reporting requirements noted by the ARC.

Based on past examples, the five-day report is usually only one to three pages in length, requiring minimal time to compose. The FAA will use the information contained within the five-day report to ensure the mishap has been properly classified and the proper level of investigation and FAA oversight is being conducted. The FAA believes the time required to complete the five-day report is minimal and that by providing a clear expectation of required report contents in the event of all mishap types will eliminate confusion and ultimately result in time-savings.

Response plan requirements for containing and minimizing the consequences of a mishap and for ensuring the preservation of data and physical evidence are generally consistent throughout license types with some exceptions. For instance, the regulations require that a launch site operator's plan include procedures for reporting and cooperating with FAA and NTSB investigations, and for designating one or more points of contact. Additionally, licensees must identify and adopt preventive measures for avoiding recurrence of the event.

Current investigation requirements are also generally consistent across license types. The FAA currently requires that operators investigate the cause of a launch, reentry, or launch site accident, launch or reentry site incident, or mishap across license types.[146] After the investigation, an operator must report investigation results to the FAA and delineate responsibilities for personnel assigned to conduct the investigation and for anyone retained by the operator to participate in an investigation. Section 420.59(e)(1) also requires that a launch site operator's investigation plan include procedures for participating in an investigation of a launch accident for launches launched from the launch site.

To ensure vehicle recovery can be conducted safely and effectively and with minimal risk to the public, part 431 operators must submit an ERP containing the operator's procedures for notifying local officials of unplanned and offsite landings. In addition, these operators must provide a plan for informing the public potentially affected of the estimated date, time, and landing location for the reentry activity. This information must be provided in layman's terms. These requirements are unique to operations conducted under part 431.

Section 417.415(c)'s post-launch and post-flight-attempt hazard controls require that an operator establish procedural controls for hazards associated with an unsuccessful flight where the launch vehicle has a land or water impact. These procedures ensure the evacuation and rescue of members of the public, the dispersion and movement of toxic plumes, identifying areas of risk, and communication with local government authorities. Additionally, these procedures require that an operator extinguish fires, secure impact areas, evacuate members of the public, prevent unauthorized access, and preserve evidence. Lastly, the operator must ensure public safety from hazardous debris and have plans for the recovery, salvage, and safe disposal of debris and hazardous materials.

For all FAA-licensed operations, proposed § 450.173 would require that an operator report, respond, and investigate class 1, 2, 3, and 4 mishaps, using a plan or other written means.[147]

An approved mishap plan document would be eligible for reuse with other specific or similar vehicles, sites, and operations. This would ease the burden on industry. For example, a permittee applying for a license or a current licensee applying for a different type of license, would be able to use the same written mishap plan document previously developed because the requirements would be the same regardless of license type. This mishap plan document would include notification to local officials should a mishap cause the vehicle to land offsite, such that a coordinated effort can be made to protect the public. Provided emergency response requirements such as coordinated emergency response agreements remain current, a permittee can submit a mishap response plan developed for permitted operations to satisfy the mishap plan document application requirements under a license. Additionally, the FAA would not have to evaluate the same company differently depending on the permit or license type. This would reduce time and cost for the industry and the FAA while maintaining the same level of public safety.

iv. Discussion of the Mishap Plan—Reporting, Response, and Investigation Proposed Requirements

Proposed § 450.173 would eliminate all mishap plan signature requirements. The requirement that the person certifying the accuracy of the application also sign the mishap plan document is not necessary because by signing the application, the operator is already certifying that the components thereof, including the mishap plan document, are accurate. Additional signatures (*e.g.,* from the safety official or mission director) are also unnecessary as the roles and responsibilities for personnel implementing the mishap plan document are contained in the plan itself. Eliminating the signature requirements would provide operators with the flexibility to assign personnel to implement a mishap plan document without having to resubmit a signed document to the FAA.

Proposed § 450.173(a) would require an operator to report, respond, and investigate class 1, 2, 3, and 4 mishaps according to paragraphs (b) through (h) of § 450.173, using a plan or other written means. Proposed § 450.173(b)(1) would require that an operator document the responsibilities for personnel assigned to implement the requirements of proposed § 450.173. Proposed § 450.173(b)(2) would require an operator to document reporting responsibilities for personnel assigned to conduct investigations and for anyone retained by the licensee to conduct or participate in investigations. Proposed § 450.173(b)(3) would require an operator to document the allocation of roles and responsibilities between the launch operator and any site operator for reporting, responding to, and

[145] 14 CFR 417.111(h)(1)(iii), 420.49(b)(2), 431.45(b)(3), and 437.75(a)(3).

[146] 14 CFR 417.111(h)(3), 420.59(d)(3), 431.45(d), and 437.75(c).

[147] For purposes of the preamble discussion regarding proposed § 450.173, the term ''mishap plan document'' is used to encompass a plan or other written means.

investigating any mishap during ground activities at the site. Further, proposed § 450.173(c) would require an operator to report to, and cooperate with, FAA and NTSB mishap investigations. Also, it would require that the operator identify one or more points of contact for the FAA and NTSB. This proposal does not substantively change current requirements to report, cooperate, and designate points of contact. Any changes from current regulations would be made merely for clarification purposes. In the event of an FAA- or NTSB-led investigation, the FAA would not require an operator to perform an independent internal investigation because it would be a party to the investigation. However, the operator would remain responsible for reporting investigation results to the FAA, which would include any government-generated or independent investigation reports as well as party submissions. In the event of an operator-led investigation under FAA oversight, the operator's investigation would be the primary investigation, although the FAA may grant official observer status to U.S. Government representatives (*e.g.,* NASA, the Air Force). As official observers, these representatives would be integrated into the operator's investigation to the extent the FAA finds appropriate. These U.S. Government entities may decide to conduct their own investigation independent of FAA oversight, although the FAA and NTSB have primary jurisdiction.

Proposed § 450.173(d) would establish mishap reporting requirements applicable to all operations, vehicles, or mishap types. Proposed § 450.173(d)(1) would require that an operator immediately notify the FAA WOC in case of a mishap involving a fatality or serious injury. Immediately would continue to mean notification without delay. The immediate notification should not hamper emergency response activities. Proposed § 450.173(d)(2) would require that operators report other mishaps not involving a fatality or serious injury to the WOC within 24 hours. This would eliminate the current option to notify the Associate Administrator for Commercial Space Transportation instead of the WOC because the WOC, unlike the Administrator for Commercial Space Transportation, is available 24-hours per day, 7 days per week. Proposed § 450.173(d)(3) would require operators to submit a written preliminary report to the FAA Office of Commercial Space Transportation within five days of any mishap. The report would need to include the information listed in proposed § 450.173(d)(3). This list of information would include the operator's assessment on how the cause of its mishap could potentially affect similar vehicles, systems, or operations. Given some systems and components are common across operators, this information could prevent mishaps due to similar failures of a common system or component, including ground and range systems. The reporting requirements in this paragraph are similar to existing five-day reporting requirements. Under current regulations, a five-day preliminary written report was only required in the event of an accident or incident. Based on lessons learned from past mishaps, the FAA is streamlining these reporting requirements to ensure consistency between mishap classes and that information required to properly classify a mishap and the level of investigation required are reported. For example, mishaps involving a fatality or serious injury are typically investigated at the Federal level, as such, the FAA is aware of the information that may affect the safety of the public or public property. The operator, in accordance with their mishap plan, may investigate mishaps not involving a fatality or serious injury. In such cases, it is possible that the FAA may not become aware of information potentially affecting the public safety or public property in a timely manner, or other facts that may require elevating the class of mishap to a higher level.

Proposed § 450.173(e) sets emergency response requirements. Proposed § 450.173(e)(1) would require that an operator activate emergency response services following a mishap. This requirement is consistent with the post-launch and post-flight attempt hazard controls in current § 417.415. Proposed § 450.173(e)(2) would require that an operator maintain existing hazard area surveillance and clearance as necessary to protect public safety. These notices would include NOTAM and NOTMAR. Proposed § 450.173(e)(3) would require that an operator contain and minimize the consequences of a mishap. Proposed § 450.173(e)(4) would provide for the preservation of data and physical evidence, including debris, which the FAA considers to be a physical record. In an effort to contain and minimize the consequences of the mishap and maintain site integrity for investigation, an operator would need to safe and secure the mishap site in a timely manner. Proposed § 450.173(e)(4) is consistent with current requirements. Proposed § 450.173(e)(5) would require an operator to implement agreements with local government authorities and emergency response services, as necessary. Emergency response procedures should identify who is responsible for securing the mishap site, and procedures for access to the mishap site. For example, the procedures should identify who is responsible for educating persons on the treatment of debris, and the disposal of hazardous materials. The FAA recommends that prior to beginning operations, an operator coordinate with Federal, state, and local authorities and emergency first responders to familiarize them with permitted and licensed operations and hazards associated with an operator's activities, such as launch vehicle hazards. This pre-coordination is important to ensure the safety of emergency personnel responding to the mishap. Vehicle and operational hazards may include vehicle composites, propellants, oxidizers, pressure vessels, unexploded ordnance, oxygen systems, and batteries.

If implemented, proposed § 450.173(f) would require an operator to investigate the root causes of a mishap and report the results to the FAA. Proposed § 450.173(g) would require that an operator identify and implement preventive measures prior to the next flight, unless otherwise approved by the Administrator. The FAA is proposing that preventive measures be implemented prior to the next flight in all cases in order to codify current practice. The FAA would work with operators on a case-by-case basis to determine whether its next operation may proceed if it is unable to implement preventive measures before the next flight. The requirement to implement corrective action prior to next flight is consistent with existing requirements in § 437.73(d) for anomaly recording, reporting, and implementation of corrective actions.

Proposed § 450.173(h) would require that an operator maintain records associated with a mishap in accordance with proposed § 450.219(d) (Records). The operator would make these records available to Federal officials for inspection and copying. This requirement is consistent with existing record keeping requirements.[148] Records would include debris, which the FAA considers a physical record. In all mishap cases, disposal of any related debris would be required to be coordinated with the FAA. Note that this proposal would allow for the sharing of proposed § 450.173

[148] Sections 417.15(b), 420.61(b), 431.77(b), and 437.87(b).

responsibilities between launch and reentry operators pursuant to an agreement. For example, the site operator may report the mishap occurrence to the FAA as required by proposed § 450.173(d), while the emergency response requirements of proposed § 450.173(e) may be shared by both the launch or reentry operator and site operator. An operator would be required to retain all records until completion of any Federal investigation and the FAA advises the operator that the records need no longer be retained.

Finally, proposed § 450.173(i) would set application requirements. This section would require the submission of the mishap plan document at the time of license or permit application.

v. Test-Induced Damage

The FAA proposes to introduce a test-induced damage exception to the mishap definition in proposed § 450.175 (Test-induced Damage). This proposal would allow an operator to coordinate testing activities with the FAA before the activities take place to prevent the FAA from labeling failures as mishaps. Any test failure covered by this section would be considered test-induced damage and not a mishap, so long as the failure falls within the pre-coordinated and FAA-approved testing profile. The test-induced damage concept is not currently within the FAA's commercial space regulations. This proposal is due to the FAA's recognition that current mishap regulations may deter the kind of robust testing that may yield future safety benefits.

The FAA currently deems a failure to achieve test objectives as a mishap (failure to complete a launch or reentry as planned). Similarly, a test failure that results in over $25,000 in damage to associated property would also be considered a mishap.[149] In both cases, the resulting mishap designation would require a mishap investigation to identify root causes and preventive measures, which the operator would need to implement before the next operation.

In the recent past, the FAA accepted the possibility of a test-induced damage approach by pre-coordinating with a launch operator prior to conducting an in-flight abort test of a crew escape system.[150] The FAA found that this process worked well in pre-defining the objectives of the test, test limits, expected outcomes, and potential failure modes. It also allowed the operator and FAA to reach a common understanding of what events would be categorized as a test-induced damage or mishap. This approach would also be consistent with ARC feedback that the existing mishap definition leads to protracted mishap investigations because it does not recognize the difference between operational missions and higher risk experimental or test missions. The ARC and FAA believe this discourages robust testing to push the limits of a vehicle and undercutting test programs currently covered under experimental permits.

As noted earlier, the ARC shared its concern that current mishap reporting and investigation requirements discourage robust testing. The FAA believes that the proposed test-induced damages paradigm addresses this concern by providing an opportunity for license applicants and existing license holders to pre-coordinate test activities and pre-declare damages that the FAA would not consider a mishap. Under this paradigm, failure to achieve identified test objectives and certain pre-declared damages to property associated with the licensed activity, including ground support equipment, ground support systems, and flight hardware would not be reportable as an FAA-mishap provided the requirements of this section are met. The FAA also proposes to replace its existing mishap related definitions in favor of a mishap classification system to further clarify the types of events that would be considered a mishap.

Proposed § 450.175(a) would lay out the specific conditions for the test-induced damage approach. It would require an operator to coordinate test activities with and obtain approval from the FAA before the planned activity. The coordination should take place with sufficient time for the FAA to evaluate the proposal during the application process or as a license modification. A test activity would need to be pre-coordinated with the FAA to be eligible for the test-induced damage mishap exception. The FAA would conduct pre-coordination activities during pre-application consultation. The test-induced damage exception would be optional and an operator would not be required to take this path. However, absent the test-induced damage exception, the FAA would categorize an unplanned event as a mishap in accordance with the proposed mishap classification system. Proposed § 450.175(a)(2) would preclude certain kinds of mishaps from the test-induced damage alternative. Specifically, any mishap involving a serious injury or fatality, damage to property not associated with the licensed activity, or hazardous debris leaving the pre-defined hazard area would be treated as a mishap and not test-induced damage. Finally, proposed § 450.175(a)(3) would require test-induced damage to fall within the scope of activities coordinated with the FAA to be eligible for this alternative. In other words, the FAA would consider the occurrence of damages resulting from test activities that fall outside the scope of approved activities (*e.g.,* before scheduled test activities begin or exceeding operation limits) as a mishap in accordance with the proposed mishap classification system. The approved scope of the test would be outlined in the information submitted by the permittee or licensee to meet the application requirements of proposed § 450.175(b).

Proposed § 450.175(b) would set the test-induced damage application requirements. The paragraph would list the information an applicant would need to submit under the test-induced damage alternative to mishap classification. The FAA does not intend the test-induced damage exception to apply to the operation of an entire vehicle, but rather the testing of specific components and systems. The applicant should submit test objectives in a complete, clear, and concise manner to help the FAA distinguish between nominal operations and specific test objectives. It should also provide test limits such as the expected environments, personnel, equipment, or environmental limits. Also, the applicant would identify expected outcomes that the FAA would later compare to actual outcomes. The FAA would also request a list of potential risks, including the applicant's best understanding of the uncertainties in environments, test limits, or system performance. Applicable procedures or steps taken to execute the tests and the expected time and duration of the test would also be required. Finally, the FAA may request additional information such as clarification information to ensure public safety, safety of property, and to safeguard the national security and foreign policy interests of the United States.

This proposal is similar to NASA's test-induced damages process, as defined in NPR 8621.1C (NASA Procedural Requirements for Mishap and Close Call Reporting, Investigating, and Recordkeeping). NASA developed the test-induced damages paradigm in support of the December 2014 launch of Exploration Flight Test-1 and it has been in use supporting NASA test

[149] "[R]esulting in greater than $25,000 worth of damage . . ." in accordance with the mishap definition in § 401.5.

[150] Given these events fell within the pre-coordinated possible scenarios, the FAA did not consider them unplanned events and therefore, did not consider the events mishaps.

programs ever since. The test-induced damages process is a formal process documenting the risk of damage and accepting that risk by signature before the test. Similar to the commercial space industry, NASA conducts tests to better understand and mitigate complex design, manufacturing, or operational issues with the objective of providing NASA with confidence that the system meets its technical and programmatic requirements and can successfully and safely perform its mission in the operational environment. As noted in NPR 8261.1C, some tests are designed and intended to result in hardware damage (*e.g.,* a structural test-to-failure). Other tests are aggressive in nature, and test-incurred damage often occurs; the knowledge gained is used to improve designs. These statements hold true for the commercial space transportation industry as well. The FAA's proposed test-induced damages takes a NASA-proven process and tailors it to satisfy the FAA's public safety mission.

L. Pre- and Post-Flight Reporting

1. Preflight Reporting

Under proposed § 450.213, the FAA would continue to require a licensee to provide the FAA with specified information prior to each launch or reentry, consistent with current requirements. An operator would send the information as an email attachment to *ASTOperations@faa.gov,* or by some other method as agreed to by the Administrator in the license. The FAA would require five categories of information: mission-specific, flight safety analysis products, flight safety system test data, data required by the FAA to conduct a collision avoidance analysis, and a launch or reentry schedule.

The first category would be mission-specific information in proposed § 450.213(b). As currently required in §§ 417.17(b)(2) and 431.79(a), an operator would be required to provide this information to the FAA not less than 60 days before each mission conducted under the license. The FAA may also agree to a different time frame in accordance with § 404.15. An operator would not have to provide any information under this section if the mission-specific information was already provided in the application. This would be the case if an operator's license authorizes specific missions, as opposed to unlimited launches or reentries within certain parameters.

Specifically, an operator would continue to have to provide payload information in accordance with proposed § 450.43(i), and flight information, including the vehicle, launch site, planned flight path, staging and impact locations, each payload delivery point, intended reentry or landing sites including any contingency abort locations, and the location of any disposed launch or reentry vehicle stage or component that is deorbited. This section would combine the reporting requirements of §§ 417.17(b)(2) and 431.79(a), although reporting the location of any disposed launch or reentry vehicle stage or component that is deorbited would be a new requirement. The FAA would add this information requirement because disposals are much more common now than when parts 417 and 435 were issued, and notifications to airmen and mariners would be necessary to protect the public from vehicle stages or components reentering as part of a disposal. In practice, licensees have arranged for the issuance of NOTAMs and NTMs for vehicle stages purposefully deorbited.

The second category is flight safety analysis products in proposed § 450.213(c). An operator would need to submit to the FAA updated flight safety analysis products, using previously-approved methodologies, for each mission no less than 30 days before flight. The FAA may also agree to a different time frame in accordance with proposed § 404.15. The flight safety analysis products are similar to what is currently required under § 417.17(c)(3). Part 431 does not require similar flight safety analysis products to be submitted, although current practice is to require similar information in license orders.

An operator would not be required to submit flight safety analysis products if the analysis submitted in the license application already satisfies all the requirements of the section. This would be the case if a licensee's license authorizes specific missions, as opposed to unlimited launches within certain parameters. An operator would also not be required to submit flight safety analysis products if the operator demonstrated during the application process that the analysis does not need to be updated to account for mission-specific factors. This would be the case if an operator operates within certain operational constraints proven to satisfy public safety criteria.

Otherwise, an operator would be required to submit flight safety analysis products while accounting for vehicle and mission specific input data and potential variations in input data that may affect any analysis product within the final 30 days before flight. An operator would also be required to submit the analysis products using the same format and organization used in its license application. Lastly, an operator would not be able to change an analysis product within the final 30 days before flight, unless the operator has a process, approved in the license, for making a change in that period as part of the operator's flight safety analysis process.

The third category is flight safety system test data in proposed § 450.213(d). If an operator would be required to use an FSS to protect public safety as required by proposed § 450.101(c), it would need to submit to the FAA, or provide access to, any test reports in accordance with approved flight safety system test plans no less than 30 days before flight. The FAA may also agree to a different time frame in accordance with proposed § 404.15. This reporting requirement is discussed earlier in the section for flight safety systems.

The fourth category would be data required by the FAA to conduct a collision avoidance analysis in proposed § 450.213(e). Not less than 15 days before the flight of a launch vehicle or the reentry of a reentry vehicle, an operator would need to submit the collision avoidance information in proposed Appendix A to part 450 to a Federal entity identified by the FAA, and the FAA. This reporting requirement is discussed in the ''Launch and Reentry Collision Avoidance Requirements'' section.

The fifth category, as proposed in § 450.213(f), a launch or reentry schedule that identifies each review, rehearsal, and safety-critical operation. The schedule would be required to be filed and updated in time to allow FAA personnel to participate in the reviews, rehearsals, and safety-critical operations. This is similar to current § 417.17(b).

2. Post-Flight Reporting

Under proposed § 450.215, the FAA would require an operator to provide specified information no later than 90 days after a launch or reentry. The FAA may also agree to a different time frame in accordance with proposed § 404.15. An operator would send the information as an email attachment to *ASTOperations@faa.gov,* or other method as agreed to by the Administrator in the license.

Specifically, as discussed earlier, an operator would need to provide any anomaly that occurred during countdown or flight that is material to public health and safety and the safety of property,[151] and any corrective action

[151] What is material to public health and safety and the safety of property is discussed later in this preamble in reference to proposed § 450.211(a)(2).

implemented or to be implemented after the flight due to an anomaly or mishap. Section 417.25(b) and (c) requires similar information. Part 431 does not require post-flight information, although current practice is to require similar information in license orders.

In addition, an operator would need to provide the actual trajectory flown by the vehicle, and, for an unguided suborbital launch vehicle, the actual impact location of all impacting stages and impacting components. The actual trajectory flown by the vehicle would be a new requirement, while the actual impact locations for an unguided suborbital launch vehicle is similar to the requirements in current § 417.25(b) and (c). The FAA would use the actual trajectory flown by the vehicle to compare it to predicted trajectories. Because the FAA may not need this information for all launches, this information would only need to be reported if requested by the FAA.

Lastly, an operator would need to report the number of humans on board the vehicle. This would be required because the FAA keeps a human space flight database for use by launch and reentry operators for the purposes of informed consent. Under § 460.45(c), and pursuant to statute, an operator must inform each space flight participant of the safety record of all launch or reentry vehicles that have carried one or more persons on board, including both U.S. government and private sector vehicles, to include the total number of people who have died or been seriously injured on these flights, the total number of launches and reentries conducted with people on board, and the number of catastrophic failures. To facilitate all operators accurately informing space flight participants, the FAA maintains the human space flight database and populates it using voluntarily provided information from industry. As more launches and reentries are expected with humans on board, the FAA will require this information to keep the human spaceflight database up to date, and expects that this would not significantly increase the burden to operators.

Ground Safety

A. Definition and Scope of Launch

As discussed in more detail in this section, the FAA proposes to amend the definitions of ''launch'' and ''reentry'' in part 401 to mirror the statutory definitions. The FAA would move the beginning and end of launch to proposed § 450.3, which defines the scope of a vehicle operator's license. Proposed § 450.3(b) would establish that launch begins under a license with the start of hazardous activities that pose a threat to the public, and it would amend the end of launch language to remove any reference to ELVs and RLVs. Finally, the FAA proposes to clarify that, absent the launch vehicle, the arrival of a payload at the launch site would not trigger the beginning of launch. Also, at a non-U.S. launch site, launch would begin at ignition or take-off for a hybrid vehicle.

Title 51 U.S.C. 50902 defines launch as to place or try to place a launch vehicle or reentry vehicle and any payload or human being from Earth in a suborbital trajectory; in Earth orbit in outer space; or otherwise in outer space, including activities involved in the preparation of a launch vehicle or payload for launch, when those activities take place at a launch site in the United States. The FAA added the current regulatory definition of launch in the 1999 final rule.[152] The language in the regulatory definition differs slightly from the current statutory language regarding activities in preparation of the vehicle, and the regulatory definition does not include the reference to human beings because that reference was added to the statute after 1999.[153] The regulatory definition also includes language that is not set forth in the statute pertaining to pre- and post-flight ground operations including language identifying the beginning of launch and end of launch.

The FAA and industry have identified a number of issues associated with the current definition of launch in § 401.5. The current definition of launch is inflexible and has resulted in confusion regarding launch from non-U.S. sites and whether the arrival of a payload constitutes the beginning of launch.

The preamble discussion in the 1999 final rule stated that the intent of the FAA's definition of ''launch'' is to require a license at the start of those hazardous preflight activities that put public safety at risk. The final rule stated that, in accordance with this responsibility, the FAA will exercise regulatory oversight only if an activity is so hazardous as to pose a threat to third parties. Specifically, the FAA determined that launch begins when hazardous activities related to the assembly and ultimate flight of the launch vehicle commence.[154] The preamble further elaborated that the moment at which hazardous activities begin is when the major components of a licensee's launch vehicle enter, for purposes of preparing for flight, the gate of a U.S. launch site, regardless of whether the site is situated on a Federal launch range and regardless of whether flight occurs from that site.[155] At the time, the FAA determined that the arrival of the launch vehicle at a U.S. launch site would trigger the beginning of launch for the following reasons: ease of administration, consistent and broad interpretation, and change in the level of risk.[156] Additionally, the rule stated that shortly after vehicle components arrive, hazardous activities related to the assembly and ultimate flight of the launch vehicle begin and therefore the arrival of the vehicle or its parts is a logical point at which the FAA should ensure that a launch operator is exercising safe practices and is financially responsible for any damage it may cause.[157] In accordance with the definition of launch, the FAA has required a launch license to be in place before the arrival of major components of a launch vehicle at a U.S. launch site that are intended for use on a specific FAA-licensed launch.

The lack of flexibility in the definition of beginning of launch has led to multiple requests from the industry to waive the requirement for a license to bring vehicle hardware on site and begin preflight activity.[158] The FAA has issued numerous waivers because it determined that the proposed preflight activities associated with the arrival of launch vehicles or their major components were not so hazardous to the public as to require FAA oversight. In granting a waiver, the FAA determines that the waiver is in the public interest and will not jeopardize public health and safety, the safety of property, or any national security or foreign policy interest of the United States. In addition, by requesting a waiver to conduct preflight activities, the operator agrees that it must forgo the opportunity to seek indemnification for

[152] 64 FR 19586 (April 21, 1999).

[153] As currently defined in 14 CFR 401.5, launch means to place or try to place a launch vehicle or reentry vehicle and any payload from Earth in a suborbital trajectory, in Earth orbit in outer space, or otherwise in outer space, and includes preparing a launch vehicle for flight at a launch site in the United States. The current definition also defines beginning and end of launch, which, as discussed later in the preamble, the FAA proposes to amend and move to proposed part 450 (Scope of a vehicle operator license).

[154] 64 FR 19586 (April 21, 1999), at 19591.

[155] 64 FR 19586 (April 21, 1999).

[156] 64 FR 19586 (April 21, 1999), at 19589.

[157] 64 FR 19586 (April 21, 1999), at 19591.

[158] As stated previously, the FAA is only able to waive regulatory requirements, not definitions, and therefore has issued waivers to the requirement to obtain a license, rather than to the definition of launch.

any loss incurred under the waiver during the waived preflight activities.

Further, the current definition does not account for the significant technological advances the industry has experienced since adoption of the 1999 rule. For example, in the current commercial space transportation environment, launch operations often include vehicles or vehicle stages that fly back to a U.S. launch site and remain at the launch site. In cases where no license was in place to cover the presence of flight hardware for possible reuse, consistent with 1999 rule preamble language, the FAA has deemed this to be storage and does not require a license or waiver.[159] As currently written, however, the definition could imply that a license is required for RLV launches during the period between end-of-launch and launch vehicle reuse, even when the vehicle is in a safe and dormant state, and would not be a threat to public safety.

Because the current definition states that launch begins under a license with the arrival of a launch vehicle or payload at a U.S. launch site, the term ''or payload'' has been interpreted to mean arrival of a payload by itself could constitute beginning of launch. However, the 1999 preamble explicitly states that the FAA does not define launch to commence with the arrival of a payload absent the launch vehicle at a launch site.[160] Also, it states that the FAA does not consider payload processing absent launch vehicle integration to constitute part of licensed activities.[161] In addition, the 1999 rule preamble refers to launch beginning when the ''major components'' of a launch vehicle arrive at the launch site. However, the regulatory language remains unclear.

Another point of current uncertainty is when launch begins from a non-U.S. site. Title 51 U.S.C. chapter 509 gives the FAA authority to issue a launch license to a U.S. citizen conducting a launch anywhere in the world. However, the current definition of launch is silent as to when launch begins from a non-U.S. site. This has resulted in operators lacking clarity as to when launch begins. In recent years, the FAA has licensed launches from international waters, Australia, the Marshall Islands, New Zealand, and Spain. In licensing these launches, the FAA has consistently interpreted that launch from outside of U.S. territory to begin at ignition or at the first movement that initiates flight, whichever occurs earlier.

The ARC commented about the definition of launch for licensed launches from a U.S. launch site. The ARC report stated that launch should be defined on a case-by-case basis for all operators. The ARC recommended licensed activities on U.S. launch sites for all vehicles include preflight ground operations, flight operations, and launch operations phases as tailored by each launch operator. The ARC further recommends the initiation and scope of launch activities, including preflight ground operations and flight operation phases, be defined by the impact of each activity on public safety and property. These activities may include both hazardous and safety-critical operations, the latter encompassing non-hazardous activities that may impact public risk during other pre-launch and flight activities. A list of performance-based criteria for licensed activities would be tailored for each operator and the FAA based on their specific concept of operations. This scope should only include hazardous operations unique to activities as defined in the operator's license application documents and not activities already regulated by another government agency.

In light of the multiple waiver requests and ARC recommendations, the FAA proposes to amend the regulatory definitions of launch and reentry (discussed later in this section) to match the statutory definitions. The FAA would also move the details in the definitions for beginning and end of launch (discussed later in this section) and reentry to the scope of a vehicle operator license requirements in proposed § 450.3. In addition, the FAA would revise ''beginning of launch'' to be more performance-based and ''end of launch'' to remove references to ELVs and RLVs. Finally, the FAA proposes to clarify that launch from a non-U.S. site would begin at ignition, and that the arrival of a payload to a launch site does not constitute beginning of launch. The FAA believes the proposed revisions capture the primary intent of the ARC's recommendation, which is to limit FAA oversight to those launch operations that pose a hazard to public safety and the safety of property.

The FAA would revise the definitions of launch and reentry in § 401.5 to mirror the statutory definitions. Specifically, the FAA would remove the beginning and end of launch language from the definition of ''launch,'' and add the term ''human being'' to align with the 2015 update to the Act. Similarly, the FAA would revise the definition of ''reenter/reentry'' in part 401 to mirror the statutory definition, and would add the term ''human being'' to align with the 2015 update to the Act.

The FAA would move the beginning and end of launch and reentry language to proposed § 450.3. The FAA proposes this change because such detail in a definition makes the definition unwieldy and, unlike regulatory requirements, definitions cannot be waived.

The FAA would amend beginning of launch such that launch begins with the first hazardous activities related to the assembly and ultimate flight of the launch vehicle at a U.S. launch site. Unless a later point is agreed to by the Administrator, hazardous preflight ground operations would be presumed to begin when the launch vehicle or its major components arrive at the launch site. For operations where an applicant identifies a later time when hazardous operations begin, the applicant may propose the event that it believes should constitute the beginning of launch during the pre-application process.[162] As a result, there would be no need to request a waiver.

This proposed change would also clarify that for launch vehicle stages or when launch begins for an RLV that returns to a launch site and remains there in a dormant state, FAA oversight is not necessary since no hazardous activity that falls under the FAA's oversight responsibilities are being performed.

This proposal would clarify that, absent vehicle hardware, the arrival of payload does not constitute beginning of launch. Instead, launch would begin with the arrival of a launch vehicle or its major components at a U.S. launch site, or at a later point as agreed to by the Administrator.

This proposal would also specify that launch from a non-U.S. site begins at ignition, or at the first movement that initiates flight, of the launch vehicle, whichever comes first. For hybrid vehicles, flight commences at take-off. The current ''beginning of launch,'' as defined in the definition of ''launch'' refers only to launches from a U.S. launch site, and is silent with regard to launches from sites outside the United States. Although the FAA issues launch licenses for launches from non-U.S. launch sites if the operator is a citizen

[159] 64 FR 19586 (April 21, 1999), at 19593. ''On the other hand, the FAA does not intend a launch license to encompass components stored at a launch site for a considerable period of time prior to flight.''

[160] 64 FR 19586 (April 21, 1999), at 19589.

[161] 64 FR 19586 (April 21, 1999), at 19593.

[162] The FAA's proposal regarding how an operator would determine what event constitutes the beginning of launch, and how to obtain the Administrator's approval, is located in the Ground Safety section under the *Identifying First Hazardous Activity* sub-heading of this preamble.

of the U.S., the FAA considers it outside its authority to license preflight activities that take place at a non-U.S. launch site in light of the statutory definition of launch that explicitly refers to ''activities involved in the preparation of a launch vehicle . . . when those activities take place at a launch site in the United States.'' The FAA also believes that this interpretation is necessary because of issues of sovereignty and liability under international law. For these non-U.S. launch sites, the FAA has historically licensed launches beginning at ignition, or if there is no ignition, then at the first movement that initiates flight. In order to provide clarity for launch operators launching from non-U.S. sites, the FAA is proposing to codify this approach in part 450.

In addition to addressing issues in the current definition of ''launch'' regarding when launch begins, the FAA proposes to clarify when launch ends. First, the FAA would move the provisions in the current definition of launch regarding end of launch to proposed § 450.3. Second, the FAA would remove the distinction between ELVs and RLVs, which is consistent with one of the overall goals of this proposed rule. Overall, the substance of the current provisions related to end of launch currently located in § 401.5 would not change. Specifically, launch ends:

1. For an orbital launch of an ELV, after the licensee's last exercise of control over its vehicle whether on orbit or a vehicle stage impacting on Earth;
2. For an orbital launch of an RLV, after deployment of all payloads or if there is no payload, after the launch vehicle's first steady state orbit; and
3. For a suborbital launch of either an ELV or RLV that includes reentry, launch ends after reaching apogee; or for a suborbital launch that does not include a reentry, launch ends after the vehicle or vehicle component lands or impacts on Earth.

In all these cases, activities on the ground to return either the launch site or the vehicle or vehicle component to a safe condition are part of launch and could possibly extend the end of launch. In the rare, yet to be seen, situation of a suborbital launch that does not require an FAA launch license but does require a reentry license, launch ends after the vehicle reaches apogee. In addition, the FAA would move the provisions related to reentry readiness and returning the vehicle to a safe state on the ground to proposed § 450.3. Including these reentry provisions in the scope of a vehicle operator license would clarify an operator's responsibilities regarding post-flight ground operations related to returning the vehicle to a safe state on the ground.

Finally, the FAA proposes to modify the definition for reentry. Title 51 U.S.C. 50902 defines reentry as: to return or attempt to return, purposefully, a reentry vehicle and its payload or human beings, if any, from Earth orbit or from outer space to Earth. In 2000, the FAA codified the current regulatory definition of reentry in the final rule, *Commercial Space Transportation Reusable Launch Vehicle and Reentry Licensing Regulations.* Section 401.5 defines ''reenter; reentry'' as: To return or attempt to return, purposefully, a reentry vehicle and its payload, if any, from Earth orbit or from outer space to Earth. The term ''reenter; reentry'' includes activities conducted in Earth orbit or outer space to determine reentry readiness, and that are critical to ensuring public health and safety and the safety of property during reentry flight. The term ''reenter; reentry'' also includes activities conducted on the ground after vehicle landing on Earth to ensure the reentry vehicle does not pose a threat to public health and safety or the safety of property. As noted earlier, the FAA proposes to revise the definition to mirror the statute and move the provisions related to reentry readiness and returning the vehicle to a safe state on the ground to proposed § 450.3.

B. Ground Safety Requirements

This proposal would revise current ground safety requirements to make them more flexible, scalable, and adaptable to varying types of launch and reentry operations. The proposal seeks to ensure that the FAA's oversight of ground operations at U.S. launch sites would only cover activities that are hazardous to the public and critical assets. Specifically, as proposed in § 450.179, an operator would be required to protect the public from adverse effects of hazardous operations and systems associated with preparing a launch vehicle for flight, returning a launch or reentry vehicle to a safe condition after landing, or after an aborted launch attempt, and returning a site to a safe condition. An operator would be required to conduct a ground hazard analysis (proposed § 450.185) and comply with certain prescribed hazard controls during those preflight activities that constitute launch. In addition, an operator would be required to comply with other ground safety and related application requirements in proposed part 450.

The FAA proposed the part 417 ground safety regulations in the 2000 NPRM [163] and codified it in the 2006 final rule. The 2006 final rule adopted ground safety standards governing the preparation of a launch vehicle for flight. The final rule specified that in order for a launch operator to meet part 417 ground safety requirements, an operator must conduct a ground hazard analysis to meet the requirements of subpart E, part 417, as well as a toxic release hazard analysis to meet the requirements of § 417.227. For launches conducted from a Federal launch range, a launch operator could rely on an LSSA as an alternative means of demonstrating compliance with the FAA's part 417 ground safety rules. Because most licensed ground operations were covered by the LSSA approach, the FAA did not begin to exercise the ground safety requirements in part 417 until 2016.

Beginning in 2016, the FAA received several applications for launch licenses from non-Federal launch sites.[164] Applicants were required to demonstrate compliance with the ground safety regulations in part 417. During the FAA's evaluation, the agency found that many of its ground safety requirements were overly burdensome, highly prescriptive, and did not include criteria for determining public safety. Furthermore, the FAA discovered the requirements were out-of-date with commercial space transportation practices and operations, and in some cases duplicated other state and Federal regulations.

Part 431 does not include explicit ground safety requirements. However, the scope of a launch license under part 431 includes preparing a launch vehicle for flight at a launch site in the United States. In conducting its safety review under § 431.31, the FAA must determine whether an applicant is capable of launching an RLV and payload, if any, from a designated launch site without jeopardizing public health and safety and the safety of property. The FAA evaluates on an individual basis all public safety aspects of a proposed RLV mission to ensure they are sufficient to support safe conduct of the mission, including ground safety. In licenses issued under part 431, the FAA has required operators to address reasonably

[163] *Licensing and Safety requirements for Launch,* NPRM. 65 FR 63922 (October 25, 2000).

[164] The FAA's first license application involving a launch from a non-Federal launch range was from SpaceX for operations at pad 39A in Cape Canaveral, Florida. The FAA completed its evaluation and issued SpaceX the license on February 2017. Astra Space originally applied for a launch license from a non-Federal launch range in June 2017, and the FAA issued its license March 2018.

foreseeable hazards to ensure the safety of pre- and post-flight ground operations. The lack of clarity in part 431 is problematic, and would be fixed by the ground safety requirements in this proposal.

The ARC recommended that the FAA create ground safety regulations that are flexible and streamlined, continue to protect the public, and are not duplicative of other state or Federal authorities. The ARC provided four primary recommendations for ground safety. First, the ARC recommended the FAA allow operators to determine what activities and operations would be covered under FAA regulations by performing an analysis to define hazards. Second, the ARC recommended the FAA scale the scope of what is considered licensed activities based on each operator's unique operations. Third, the ARC recommended the FAA focus its regulatory authority solely on those things that affect public safety. Finally, the ARC recommended the FAA only regulate those things that are not already overseen by other governmental authorities.

The FAA agrees with the ARC's recommendations that ground safety regulations should be flexible, performance-based, and utilize a ground hazard analysis that determines the best methods for protecting the public. The proposed ground safety regulations would rely on a system safety approach to allow flexibility by stripping away specific design requirements, establishing more performance-based requirements, and giving the operator flexibility in satisfying these requirements. Specifically, an operator would conduct a ground hazard analysis (proposed § 450.185), and comply with prescribed hazard controls. In addition to any mitigations identified in the ground hazard analysis, the proposed regulations would require several prescribed hazard controls, including an accounting of how the operator would protect members of the public who enter areas under their control, provisions on how the operator would mitigate hazards created by a countdown abort, an explanation of the operator's plans for controlling fires, and generic emergency procedures an operator would implement. As will be discussed later, operators using toxic materials would have to perform a toxic release hazard analysis (proposed § 450.187), show how it would contain the effects of a toxic release, or how the public would be protected from those risks from toxic releases. Operators would also be required to develop an explosive siting plan (proposed § 450.183) and to coordinate with licensed launch and reentry site operators (proposed § 450.181).

1. Ground Safety: Identifying First Hazardous Activity

In proposed § 450.3, an operator would have the flexibility to determine for its particular operation when the first preflight activity that poses a hazard to the public begins in coordination with the FAA. An operator could identify the arrival of the vehicle or its major components at the launch site as the beginning of hazardous operations, which is consistent with current practice. This option would provide a clear demarcation of when launch begins that is easily understood by both an operator and the FAA. The license would cover all ground operations that may present a hazard to the public from the time flight hardware first arrives at the launch or reentry site to the end of launch or reentry.

Alternatively, an operator could identify some other action, after the arrival of the vehicle or its major components at the launch site, as the beginning of hazardous activities. As discussed earlier in the scope of a vehicle operator license discussion, this option would be available for those operations where the arrival of the launch vehicle does not constitute the beginning of hazardous activities. It would also provide flexibility to operators because the start of hazardous launch operations is unique to each operator's circumstances. These hazardous launch operations would include the pressurizing or loading of propellants into the vehicle or launch system,[165] operations involving a fueled launch vehicle,[166] or the transfer of energy necessary to initiate flight.[167]

While this option offers greater flexibility, it would require that an applicant talk with the FAA during pre-application consultation to identify which activity would be the beginning of hazardous launch operations. This is necessary for the FAA to scope its requirements accordingly, and so that the applicant knows what to include in its application. Early interactions with the FAA would allow a potential applicant to work with the FAA to determine which preflight operations constitute launch and therefore must occur under a license. An applicant that elects to identify an activity after the arrival of a launch vehicle or associated major components at a launch site as the beginning of launch should be prepared to discuss its operations with the FAA so that the FAA can determine that operations occurring prior to that point would not pose a threat to public safety. Note that under this proposal, indemnification and reciprocal waiver of claims coverage would start when launch begins as it does under current regulations. In other words, financial responsibility requirements would apply from the first hazardous operation until launch ends.

2. Ground Safety: Ground Hazard Analysis

Proposed § 450.185 (Ground Hazard Analysis) would require an operator to complete a ground hazard analysis which would include a thorough assessment of the launch vehicle, the launch vehicle integrated systems, ground support equipment, and other launch site hardware. The analysis would include an identification of hazards, a risk assessment, an identification and description of mitigations and controls, and provisions for hazard control verification and validation. Although the analysis might incorporate employee safety and mission assurance, this proposal would only require an applicant to identify the hazards that affect the public, and how an operator would mitigate those hazards.

Proposed § 450.185(a) would require an operator to identify hazards. A hazard is a real or potential condition that could lead to an unplanned event or series of events resulting in death, serious injury, or damage to or loss of equipment or property. The FAA proposes separating ground hazards into two primary categories: System and operational hazards. System hazards would include, but would not be limited to, vehicle over-pressurization, sudden energy release including ordnance actuation, ionizing and non-ionizing radiation, fire or deflagration, radioactive materials, toxic release, cryogens, electrical discharge, and structural failure. Operational hazards would be hazards introduced to the launch site through procedures and processes that occur during vehicle processing. Operational hazards would include propellant handling and

[165] This would include the loading of propellants or pressurants, where there are potential hazards such as overpressure, explosion, debris, deflagration, fire, and toxic material release. The operations that are typically performed include wet dress rehearsals, cold flow, returning the vehicle to a safe state following a scrub, and tests that might be performed while the vehicle is being fueled.

[166] This would include static fire or tests with a fully-fueled integrated vehicle.

[167] This would include activities that involve placing the launch vehicle into a state that would enable it to achieve suborbital or orbital flight. Even if traditional propellants are not used, the energy needed to escape Earth's gravity is significant and the initiation of the action to launch a vehicle could potentially have significant impact to public safety.

loading, transporting vehicles or components, vehicle system activation, and related tests.

Once an operator has identified hazards, proposed § 450.185(b) would require an operator to conduct a risk assessment. In other words, an operator would have to evaluate each hazard to determine the likelihood and the severity of that hazard. This assessment should identify the likelihood of each hazard causing a casualty. This assessment should also account for the likelihood of each hazard causing major damage to public property or critical assets. Public property, in this case, means any property not associated with the operation. Critical assets means an asset that is essential to the national interests of the United States, and includes property, facilities, or infrastructure necessary to maintain national defense, or assured access to space for national priority missions.

Proposed § 450.185(c) would require an operator to identify mitigations or controls used to eliminate or mitigate the severity or likelihood of identified hazards. An operator would be required to demonstrate, as part of its ground hazard analysis, that the mitigations or controls reduce the likelihood of each hazard that may cause (1) death or serious injury to the public to an extremely remote likelihood, and (2) major damage to public property or critical assets to a remote likelihood. These qualitative thresholds are the same as those in § 437.55(a)(3) and proposed § 450.109(a)(3). A hazard control is a preventative or mitigation measure that reduces the likelihood of the hazard or ameliorates its severity.

Proposed § 450.185(d) would require an operator to identify and describe the risk elimination and mitigation measures required to satisfy the risk criteria in proposed § 450.185(c). Under current industry standards, these measures include one or more of the following: Design for minimum risk, incorporate safety devices, provide warning devices, or implement procedures and training, as previously discussed in reference to the analogous flight hazard analysis requirement in § 450.109(a)(4).[168]

Finally, proposed § 450.185(e) would require an operator to demonstrate through verification and validation that the risk elimination measures meet the remote and extremely remote standards discussed earlier. Verification is an evaluation to determine that safety measures derived from the ground hazard analysis are effective and have been properly implemented. Verification provides measurable evidence that a safety measure reduces risk to acceptable levels. Validation is an evaluation to determine that each safety measure derived from the ground hazard analysis is correct, complete, consistent, unambiguous, verifiable, and technically feasible. Validation ensures that the right safety measure is implemented, and that the safety measure is well understood.

While this proposal would require an operator to complete a full ground hazard analysis as described previously, an operator would not need to submit this analysis in its entirety as part of its vehicle operator license application. Rather in proposed § 450.185(f), the FAA would require an applicant to provide a description of the ground safety hazard analysis methodology, a list of the systems and operations involving the vehicle or payload that may cause a hazard to the public, and the results of the ground hazard analysis that affect the public. Although the results of the ground hazard analysis would be unique to each applicant's operations, the ground hazard analysis application deliverables should have common elements. Specifically, the ground hazard analysis should contain the hazards that have a high likelihood or high severity of affecting the public. The analysis should include controls for the hazards that mitigate the risk to the public and all of the other requirements shown in § 450.185. Common hazards that affect public safety, which the FAA would expect to be addressed in a ground hazard analysis, include propellant loading, ordinance installation or actuation, proximity to pressurized systems during operations, certain lifting operations (such as solid rocket motors and payload integration), operations which could result in toxic release, and RF testing. Fundamentally, if the operator identifies a hazard that affects the public, it must be properly documented and mitigated to reduce the risk to the public. It should be noted that any part of the ground hazard analysis could be reviewed during inspection.

3. Ground Safety: Ground Safety Prescribed Hazard Controls

In addition to those mitigations an operator would implement as a result of its ground hazard analysis, proposed § 450.189 (Ground Safety Prescribed Hazard Controls) would require an operator to implement certain prescribed hazard controls during the ground operations period of launch or reentry. These prescribed hazard controls would require that an operator document how it would protect members of the public who enter areas under the operator's control, mitigate hazards created by a countdown abort. They would also require the operator's plans for controlling fires and emergency procedures.

Specifically, proposed § 450.189(b) would require an operator to document a process for protecting members of the public who enter any area under the operator's control. Although the public would be protected from many hazards because they are excluded from safety clear zones and prevented from entering the site during certain hazardous operations, an operator should account for the protection of the public when they are allowed to be on the site. The proposed rule would require an operator to develop procedures to identify and track members of the public while on site, and methods to protect the public from hazards in accordance with the ground hazard analysis and the toxic hazard analysis. For example, the operator could have plans in place to control who enters its site, whether or not members of the public on site will be escorted, how the public will be made aware of and protected from hazards, and if members of the public will be required to wear personal protective equipment.

This rule would also require an operator to establish, maintain, and perform procedures for controlling certain hazards in the event of a countdown abort or recycle operation. Current § 417.415(b) requires an operator to meet specific requirements for safing their vehicle, maintaining control of their FSS, and controlling access to the site until it is returned to a safe state. This rule would require a more performance-based approach to ensuring the safety of the vehicle and the site following a countdown abort or recycle operation in order to accommodate many different types of flight safety systems and operations.

Proposed § 450.189(c) would require that an operator, following a countdown abort or recycle operation, establish, maintain, and perform procedures for controlling hazards related to the vehicle and returning the vehicle, stages, or other flight hardware and site facilities to a safe condition. In all of these instances, this proposal would require an operator to have provisions in place to keep the public safe while returning the launch vehicle or launch site back to a safe condition. If a launch vehicle does not lift-off after a command to initiate flight, an operator would be required to ensure that the vehicle and any payload are in a safe configuration, prohibit the public from entering into any identified hazard areas until the site

[168] MIL–STD–882E, section 4.3.4.

is returned to a safe condition, and maintain and verify that any FSS remains operation until certain that the launch vehicle does not represent a risk of inadvertent flight. These more specific requirements would be levied on an operator in the event of a failure to lift-off after a command to initiate because a launch vehicle can be in a particularly hazardous state.

This proposed requirement is similar to § 417.415(b), which requires a launch operator to establish procedures for controlling hazards associated with a failed flight attempt where an engine start command was sent, but the launch vehicle did not lift-off. These procedures must include maintaining and verifying that each flight termination system remains operational, assuring that the vehicle is in a safe configuration, and prohibiting launch complex entry until the launch pad area safing procedures are complete.

Proposed § 450.189(d) would require an operator to have in place reasonable precautions for reporting and controlling any fire that occurs during launch and reentry activities in order to prevent the occurrence of secondary hazards such as a brush fire caused by a static fire test or some related ground launch activity. These secondary hazards, if not controlled, could reach pressure vessels or other related equipment causing more damage. An operator may choose to meet industry standards or fire codes as a means of satisfying this requirement.

Proposed § 450.189(e) would require an operator to establish general emergency procedures that address how emergencies would be handled at the site. An emergency has the potential to directly affect the public or create secondary hazards that may affect the public; therefore, implementation of these procedures are critical for safety of the public. An emergency would include any event that would require an evacuation, or a response from emergency officials such as the fire department or emergency medical technicians. Additionally, the establishment of general emergency procedures would allow the operator to have roles, responsibilities, and plans in place in advance of an emergency to reduce the effects of any emergency on the public. Section 417.111(c)(15) currently requires an operator to have generic emergency procedures in place for any emergency that may create a hazard to the public, and this rule would replace those prescriptive requirements with performance-based requirements.

Proposed § 450.189(f) would require an applicant to submit its process for protecting members of the public who enter any area under the operator's control. This process would be submitted as part of an applicant's vehicle operator license application.

4. Ground Safety: Coordination With a Licensed Launch or Reentry Site Operator

Under proposed § 450.181(a), for a launch or reentry conducted from or to a Federal launch or reentry site or a site licensed under part 420 or 433, an operator must coordinate with the site operator because the two entities each have public safety responsibilities during ground operations. Specifically, an operator must coordinate with the site operator to ensure public access is controlled where and when necessary to protect public safety, to ensure launch or reentry operations are coordinated with other launch and reentry operators and other affected parties to prevent unsafe interference, to ensure that any ground hazard area does not unnecessarily interfere [169] with continued operation of the launch or reentry site, and to ensure prompt and effective response in the event of a mishap that could impact public safety. This is similar to § 417.9(b)(2), which requires a launch operator to coordinate with a launch site operator and provide any information on its activities and potential hazards necessary for the launch site operator to determine how to protect any other launch operator, person, or property at the launch site. Part 431 requires an agreement between a launch or reentry operator and any site operator in § 431.75. In addition, in the mission readiness review requirements in § 431.37(a), an operator must involve launch site and reentry site personnel and verify their readiness to provide safety-related launch property and launch services.

For a launch or reentry conducted from or to a site licensed under part 420 or 433, § 450.181(b) would require an operator to also coordinate with the site operator to establish roles and responsibilities for reporting, responding to, and investigating any mishap during ground activities at the site. The same mishap plan requirements in proposed § 450.173 would apply to a site operator leaving open the assignment of roles and responsibilities between a site and launch or reentry operator for reporting, responding to, and investigating mishaps during ground operations. Proposed § 450.181(b) is designed to ensure those roles and responsibilities are established.

As part of its application, an applicant would be required to describe how it is coordinating with a Federal or licensed launch or reentry site operator in compliance with this section. As discussed earlier, in reference to proposed § 450.147, a vehicle operator would be required to submit as part of its vehicle operator license application references to any agreements with other entities utilized to meet any requirements of this section. In this context, agreements may include security, access control services, any lease agreements for launch sites, services used for hazard controls or analysis, or any agreement with local emergency or government services.

5. Ground Safety: Explosive Site Plan

Proposed § 450.183 (Explosive Site Plan) would require an applicant to include an explosive site plan as part of its vehicle operator license application, if it proposes to conduct a launch or reentry from or to a site exclusive to its own use. The explosive site plan would have to demonstrate compliance with the explosive siting requirements of §§ 420.63, 420.65, 420.66, 420.67, 420.69, and 420.70. Currently for exclusive use sites, § 417.9(c) requires a launch operator to satisfy the requirements of the public safety requirements of part 420. With proposed § 450.183, the FAA is clarifying that the only requirements from part 420 that need be conducted by an exclusive use operator is the explosive safety requirements.

6. Ground Safety: Toxic Hazards During Ground Operations

Proposed § 450.187 contains requirements for toxic hazard mitigation for ground operations. This is discussed later in the ''Additional Technical Justification and Rationale'' section, in the subsection on toxic hazards for flight, due to the commonality of toxic requirements for ground operations and flight.

Process Improvements

A. Safety Element Approval

This proposal would modify part 414 to enable applicants to request a safety

[169] The FAA has proposed minimum requirements for ground hazard areas based on safety thresholds, either toxic hazard areas or other hazard areas derived from the ground hazard analysis, but has always allowed operators to propose to clear areas larger than necessary to ensure greater safety. In consultation with NASA and the Department of Defense, the FAA discovered that FAA approved ground hazard areas were having adverse impacts on neighboring space operations in easily avoidable ways. As such, the FAA has proposed ground hazard areas be coordinated with the affected launch or reentry site operators prior to licensing.

element approval in conjunction with a license application as provided in proposed part 450. Proposed § 450.39 (Use of Safety Element Approval) would allow an applicant to use any vehicle, safety system, process, service, or personnel for which the FAA has issued a safety element approval under part 414 without the FAA's reevaluation of that safety element during a license application evaluation to the extent its use is within its approved envelope. Finally, this proposal would change the part 414 term from ''safety approval'' to ''safety element approval'' to distinguish it from ''safety approval'' as used in parts 415, 431, and 435, and proposed part 450, because these terms, as discussed later in this section, have entirely different meanings.

i. Part 414 and 415 Safety Approval Clarification

As defined in current § 414.3, a safety approval is an FAA document containing an FAA determination that one or more safety elements, when used or employed within a defined envelope, parameter, or situation, will not jeopardize public health and safety or safety of property. As listed in the Act, safety elements include: (1) Launch vehicle, reentry vehicle, safety system, process, service, or any identified component thereof; or (2) qualified and trained personnel, performing a process or function related to licensed launch activities or vehicles. In contrast, parts 415, 431, and 435 reference ''safety approval'' to mean an FAA determination that an applicant is capable of launching a launch vehicle and its payload without jeopardizing public health and safety, and safety of property. Other chapter III parts, including parts 431 and 435, reference ''safety approval'' as described in part 415.

The use of identical terms in parts 414, 415, 431, and 435 to reference different meanings has caused confusion. Therefore, the FAA proposes to distinguish these terms by changing the part 414 term to ''safety element approval.'' This proposed term more accurately reflects the substance of a part 414 safety approval of a particular element that may be used to support the application review for one or more launch or reentry licenses. Other than the addition of ''element'' to the current term, the part 414 definition and related references in parts 413 and 437 would remain the same. The FAA would make conforming changes throughout parts 413, 414, and 437, where a part 414 safety approval is referenced, to change those references to ''safety element approval.'' The term ''safety approval'' would maintain the same meaning as that in current 415, 431 and 435 where it appears in the proposed rule.

ii. Part 414 Safety Element Approval [170] Application Submitted in Conjunction With a License Application

Part 414 enables a launch and reentry operator to use an approved safety element within a specified scope without a re-examination of the element's fitness and suitability for a particular launch or reentry proposal. A safety element approval may be issued independent of a license, and it does not confer any authority to conduct activities for which a license is required under chapter III. A safety element approval does not relieve its holder of the duty to comply with all applicable requirements of law or regulation that may apply to the holder's activities.

The ARC recommended that an applicant for a launch or reentry license be able to identify one or more safety elements included in the applicant's license application and to request review of those safety elements for a safety element approval concurrent with the license application review.[171]

The FAA agrees with the ARC's recommendation. The FAA notes that its practice has always been to accept references to information provided in a previous license application so long as the applicant can demonstrate the relevance of that information to the current application. The FAA also relies on previous evaluations where it analyzed compliance with a particular requirement if the same operator submits a more recent application using the same analysis. The proposed changes would codify this approach for safety element approval applications in proposed § 450.39 [172] and the relevant sections in part 414.

This proposal would allow an applicant to request a safety element approval as part of its vehicle operator license application. Specifically, this rule would provide a process in proposed § 414.13 to apply for a safety element approval concurrently with a license application. These safety element approval applications submitted in conjunction with a license would largely use information contained in a license application to satisfy part 414 requirements. This would alleviate the need to provide separate applications for a vehicle operator license and a safety element approval. The FAA envisions safety element approvals in conjunction with a license application to cover the same safety elements as delineated in § 414.3.

Using similar processes as for part 414, the FAA would determine whether a safety element is eligible for a safety element approval. The FAA would base its determination on criteria in proposed part 450. The applicant would be required to specify the sections of the license application that support its application for a safety element approval. The technical criteria for reviewing a safety approval submitted as part of a vehicle operator license application would be limited to the requirements of proposed part 450. This limitation would simplify the safety element approval process by eliminating the need to provide a Statement of Conformance letter, as required under current § 414.1(c)(3) for a safety element approval separate from a vehicle operator license application. To avoid this limitation to proposed part 450 criteria, an applicant could apply for a safety element approval separate from a vehicle operator license. However, there is no difference between a safety element approval issued through a separate application or a vehicle operator license application.

Finally, the FAA proposes to remove the requirement stating that, for each grant of a safety element approval, the FAA will publish in the **Federal Register** a notice of the criteria that were used to evaluate the safety element approval application, and a description of the criteria. The FAA provided the rationale for this notification in the preamble to a proposed rule.[173] The FAA explained that the purpose of this notification requirement was to make clear the criteria and standards the FAA used to assess a safety element. However, the FAA has found that this requirement is unnecessary, and has potentially discouraged applications for safety element approvals due to concerns that proprietary data may be disclosed. Going forward, a safety element approval application submitted concurrently with a vehicle operator license application would be evaluated

[170] For readability and ease of understanding, this section refers to a current part 414 safety approval as a safety element approval, regardless of whether the discussion is referencing the current regulations or the proposed regulations. For direct quotations, the FAA retains the previous term ''safety approval.''

[171] ARC Report, p. 24–25.

[172] Proposed § 450.39 is similar to § 437.21(c) for experimental permits, which states that if an applicant proposes to use any reusable suborbital rocket, safety system, process, service, or personnel for which the FAA has issued a safety approval under part 414, the FAA will not reevaluate that safety element to the extent its use is within its approved envelope. Parts 415 and 431 do not have similar sections because they were developed before part 414 was issued.

[173] *Safety Approvals,* NPRM, 70 FR 32191, 32198 (June 1, 2005).

based only on criteria in proposed part 450. For other safety element approvals, experience has shown that there is no need to publish the criteria because the FAA's determinations were not based on any uniquely-derived standard. In fact, all eight safety element approvals granted by the FAA have been evaluated against regulations in 14 CFR chapter III. Therefore, the FAA proposes to revise the requirement in current § 414.35 (re-designated as § 414.39) such that safety element approval evaluation criteria, whether related to an application submitted concurrently with a license application or separately, would not require publication.

Given the FAA's proposal to not require publication of evaluation criteria, the confidentiality provision under current § 414.13(d) [174] is no longer necessary. That provision notifies applicants that if proposed criteria is secret, proprietary, or confidential, it may not be used as a basis to issue a safety approval.

B. Incremental Review of a License Application

In response to the ARC recommendations, the FAA proposes to amend part 413 and to include language in proposed part 450 to allow an applicant the option for an incremental review of the safety approval portion of its application.

Under 51 U.S.C. 50905(a)(1), the FAA is required by statute to issue or deny a launch or reentry license not later than 180 days after accepting an application. Under the same statute, the FAA must inform the applicant of any pending issue and action required to resolve the issue not later than 120 days after accepting an application. To ensure that the FAA has sufficient time to complete a thorough review to evaluate whether the applicant complies with the FAA's commercial space transportation regulations in the prescribed time frame, § 413.11 states the FAA screens the application to determine if it contains sufficient information for it to begin its review. It also states that if the application is so incomplete or indefinite that the FAA cannot start to evaluate it, the FAA will notify the applicant accordingly. In accordance with internal policy, the FAA aims to make this complete enough determination within two calendar weeks after receiving the application. When the FAA accepts an application, the 180-day review period begins on the date that the FAA received the application. If the FAA accepts an application as complete enough to review, the FAA works with applicants to identify additional information and documentation needed to demonstrate regulatory compliance, and advises applicants when those materials are needed. If the additional materials are not provided within an appropriate time frame, the FAA tolls the review period, stopping the counting of time towards the 180-day deadline. Once the FAA has completed its review, it issues a license, or informs the applicant, in writing, that the license application is being denied and states the reasons for denial.

Industry representatives have expressed frustration both with a lack of clarity as to what is ''complete enough'' for the FAA to accept an application and begin review and with the 180-day review period. The FAA seeks comment on how the FAA can improve the clarity of ''complete enough'' to address past frustrations. For an applicant that is in the early stages of development, there are challenges with compiling all of the documentation in parallel with their vehicle development. First-time applicants regularly underestimate the amount of time needed for licensing. For nearly all applicants, much of the vehicle and mission information is only refined and finalized within the 180-day review period, which may subject the application to tolling and business risk to the applicant's timeline for launch operations. The timing of the issuance of an FAA authorization has never caused a delay to a launch or reentry operation, but the FAA is cognizant that there could be impacts on an operator even absent an operation delay.

In part to address these issues, and bearing in mind that a written application is the means by which the FAA determines whether a launch or reentry operator can conduct a launch or reentry safely, the FAA invited the ARC to describe how the FAA might modify its application process to improve efficiency for both the FAA and applicants. The ARC suggested in part that the FAA allow for an incremental or modular application and review process. Specifically, the ARC recommended that the application review process should be modified to allow for incremental approvals of subsections to guide a focused review and avoid tolling. The recommendation suggested further that, rather than 180 days for review of an entire application, the FAA should assign a brief period for each subsection or module.

The current application process is already modular to an extent. The FAA has issued payload determinations outside of a license, primarily for payload developers seeking early assurances that their payload would be permitted to be launched. The FAA has even conducted preliminary policy reviews to provide similar assurances to future applicants on a less formal basis. Despite these allowances, the vast majority of FAA commercial space licensing evaluation time is spent on evaluating the safety implications of a license application. Because this proposed rule seeks to convert the prescriptive safety requirements to performance-based criteria, the FAA believes that it may be possible to develop a flexible safety review process that can afford applicants early determinations, providing an applicant more flexibility and control over the timing of the licensing process.

The ARC also recommended that the FAA reduce its application review time. The ARC focused on differentiating between experienced and inexperienced operators in order to decrease FAA review time of license applications. While the FAA agrees that experienced operators may require shorter application review times, it should be noted that this would likely be due to familiarity with the application process, more streamlined application materials that lend themselves to a more efficient review, and established processes that have been through FAA review previously (such as ground safety analyses). While the proposed incremental review process would empower operators to better define when certain portions of an application are reviewed and would allow an operator that has satisfied certain requirements early to receive credit for those portions of its application in advance, other proposals in this rulemaking, such as safety element approvals concurrent with a license application, flexible time frames, and reduced application burdens, would probably serve to reduce review times more effectively than an incremental application process. Nevertheless, the modular nature of payload determinations, policy approvals, environmental evaluations, and financial responsibility requirements, and the more granular incremental review of compliance with the safety approval requirements would allow an applicant to seek partial approval of an application as soon as a portion is ready to be evaluated. These approvals would allow an operator to better manage its timeline and any potential timeline risk. The flexible nature of this proposal would allow the FAA to further engage with industry and establish new best practices and greater efficiencies for

[174] Current § 414.13 would be renumbered in this proposal as § 414.17 to maintain sequential section numbering.

both government evaluators and our commercial partners. The option of using an incremental approach would provide more flexibility to operators who are able to provide portions of their application in advance.

In proposed § 450.33 (Incremental Review and Determinations), the FAA would revise the launch and reentry regulations to allow for an incremental review application submission option for vehicle operator license applicants. Because the current regulations already allow an operator to submit the payload, policy, environmental, and financial responsibility portions of its application independently, the FAA proposes that the incremental review process apply specifically to the safety approval portion of a license application. Given the large variety of applicant experience, proposed operations, and company timelines, the FAA recognizes a need for flexibility. Accordingly, the FAA is proposing amendments to part 413 and regulatory language in proposed part 450 to allow for incremental application submission and determinations. This incremental review application process would not replace the traditional review of a full, complete application submitted at once—the incremental review would be an optional path to obtaining an FAA license determination that allows an applicant to choose an application submission process that suits their business model and program needs.

The FAA is proposing in § 450.33(a) that, prior to any submission, an applicant would be required to identify to the FAA that it plans to avail itself of the incremental review and determination application process. During pre-application consultation, the FAA would work with an applicant towards an incremental review process that is aligned to both the development process for an applicant and the necessities of the FAA's evaluation framework. The FAA proposes to coordinate with applicants during pre-application consultation to determine the following: (1) Appropriate portions of an operator's application that could be submitted and reviewed independently; (2) the application and review schedule with dates of key milestones; (3) the applicant's planned approach to demonstrate compliance with each applicable regulation, to include any foreseeable requests for waiver; and (4) the scope of the proposed action being applied for, the identification of any novel safety approaches or other potentially complicating factors, and how those will be addressed during the licensing process.

The details of an applicant's incremental application process would have to be approved by the FAA in accordance with proposed § 450.33(b) prior to application submission and the FAA could issue determinations towards a safety approval resulting from those reviews, in accordance with proposed § 450.33(c). An applicant would be able to propose sections of the safety approval portion of its application that the FAA could review independently. This process would allow an applicant to submit completed sections, for example the System Safety Program, to the FAA early, rather than wait until the entire application was complete enough. The FAA would also be able, where appropriate, to review and make determinations on these increments prior to a full licensing determination. It would also allow an applicant to identify more challenging or lengthy portions of an application that could be submitted earlier to avoid delays and tolling closer to a launch date. The FAA believes this process would improve predictability for applicants seeking assurances against business risks. As the FAA gains more experience with the incremental application process, the FAA may issue guidance for the process or an example of a process that has been found to satisfy the intent of the regulation.

The FAA considered the ARC's recommendations for predetermined modules, but identified several concerns in attempting to model the practice of such a process. The ARC provided a flow diagram that partitioned the evaluation process into nine conceptual 30-day modules, with the proposal that those modules could be reviewed in serial or in parallel. As noted earlier, the FAA is statutorily limited to a 180-day review process, so any review of modules in serial could not exceed 180 days. The ARC recommended that if the modules are submitted in parallel for concurrent review, extra time should be provided for FAA review up to 90 days to allow for dependent analyses. The ARC recommendation asserted the importance that the modules are independent in terms of content, when possible, but correctly acknowledged that some modules will necessarily depend on others.[175] The FAA seeks to provide as much flexibility as practicable in the proposed process to enable innovative business practices and schedules that contemplate frequent launches and reentries, but many aspects of the safety evaluation are interdependent, and the FAA requires certain material from one aspect of a safety evaluation to inform and remain consistent with other aspects. Furthermore, operators generally develop and define standards, methodologies, processes, preliminary designs, and plans for an aspect of their evaluation long before they are able to submit advanced analysis products or testing results. The FAA seeks comment on how a formal incremental review process would account for the statutory 180-day review period, when application increments or modules are likely to be submitted and reviewed at very different time periods.

To enable incremental application submission and review, the FAA is proposing to amend § 413.1 to broaden the term application to encompass either a full application submitted for review or an application portion submitted under the incremental review process. In making this amendment, the FAA would be able to accommodate applications submitted under either process. The FAA proposes to retain the pre-application consultation requirement of § 413.5, which is streamlined by the proposed removal of § 415.105 and its duplicative requirement for a more prescriptive pre-application consultation process. Under this proposal, an operator would be required to identify whether it wants to enter into the incremental application process during pre-application consultation. Should an operator elect to submit its application incrementally, it would work with the FAA to detail what is needed for each application portion to begin review. In proposing an approach to incremental review, the FAA expects that an applicant would consider the following:

1. Application increments submitted at different times should be not be dependent on other increments to the extent practicable.

2. Application increments should be submitted in a workable chronological order. In other words, an applicant should not submit an application increment before a separate application increment on which it is dependent. For example, the FAA would not expect to agree to review a risk analysis before reviewing a debris analysis or probability of failure analysis because the risk analysis is directly dependent on the other two analyses.

3. An applicant should be able to clearly identify all the regulations and associated application materials that would be required for each application increment, and should be able to demonstrate to the FAA that all the applicable regulations are covered by the separately submitted portions.

[175] ARC Report, p. 61.

4. Examples of application increments that may be suitable for incremental review include: System Safety Program, Preliminary Safety Assessment for Flight, Flight Safety Analysis Methods, and FSS Design.

The FAA seeks comment on the incremental approach generally. The FAA further seeks comment on any other useful guidelines that an applicant should consider when crafting an incremental approach. Finally, the FAA also seeks comment on any other safety approval sections of a license application that would be appropriate for incremental review.

Finally, the FAA would amend § 413.15 to provide that the time frame for any incremental review and determinations would be established with an applicant on a case-by-case basis during pre-application consultation. The FAA would continue to work with applicants during the pre-application phase to assist applicants in navigating the FAA's regulations and identifying potential challenges.

C. Time Frames

Chapter III regulations include a number of prescriptive time frame requirements that the FAA proposes to make more flexible. In 2016, the FAA conducted a review of the time frames in chapter III and found that many could be made more flexible without any discernable impact on safety. During meetings with the Commercial Spaceflight Federation (CSF) [176] in 2017 and 2018, some members of industry expressed concern about the FAA's restrictive time frame requirements. The ARC also stated that the current regulatory time frames and requirements for submission of changes is onerous and untenable for high flight rates.[177]

In consideration of the industry's comments and the FAA's review of chapter III time frames, the FAA proposes in § 450.15 to increase flexibility by allowing an operator the option to propose alternative time frames that better suit its operations. The FAA would revise the time frame requirements in parts 404, 413, 414, 415, 417, 420, 431, 437, and 440 that are overly burdensome and may result in waiver requests. Further, the FAA would, after reviewing the operator's request for an alternative time frame, provide the FAA's expected review period to make its determination on the proposed alternative time frame. The proposed revisions to parts 415, 417, and 431 would be included in new proposed part 450. For ease of reference, the FAA would list all revised chapter III time frames in proposed appendix A to part 404.

Proposed § 450.15(b) would inform the operator to submit its request for an alternative time frame in writing. The ''in writing'' provision could be in the form of a formal letter or email sent electronically to the email address *ASTApplications@faa.gov,* with the subject line ''Alternative Time Frame Request.'' If an operator would like to send the request in hardcopy, it would mail the request to the Federal Aviation Administration, Associate Administrator for Commercial Space Transportation, Room 331, 800 Independence Avenue SW, Washington, DC 20591; Attention: Alternative Time Frame Request. The FAA anticipates that an operator would submit these requests during the pre-application consultation or during the application process, and not after a license has been issued. At a minimum, the operator would be required to submit its request before the time frame specified in the regulations. Note, the FAA would need time to process the request. For example, if a requirement states that an operator must submit a document 30 days before launch, the operator may not submit a request for an alternative time frame 30 days before launch or later. Also, under the proposal, the requested alternate time frame must be specific. For example, an operator could request to submit a document 15 days before launch, but not ''as soon as possible.'' The FAA would provide the operator its decision in writing.

Proposed § 404.15(c) would provide the conditions under which the Administrator would agree to an alternative time frame. That is, the FAA would review and agree to an alternative time frame if the proposed alternative time frame would allow time for the FAA to conduct its review and make the requisite findings. For example, the default time frame in proposed § 450.213(b) for a licensee to submit to the FAA certain payload information would be not less than 60 days before each mission conducted under a license. The FAA uses the information to verify that each payload fits within any approved class of payload under the license, and to address any issues that may arise. The FAA may only need a shorter time frame for this effort if the approved payload classes are well defined and unlikely to generate payload-specific issues. As another example, the default time frame in proposed § 450.213(d) for a licensee to submit to the FAA certain flight safety system test data would be no later than 30 days before flight. The FAA may agree to a shorter time frame for an experienced operator that uses a proven flight safety system.

D. Continuing Accuracy of License Application and Modification of License

The FAA proposes to consolidate continuing accuracy requirements currently in §§ 417.11 and 431.73 in proposed § 450.211. The proposed rule would preserve the standards in §§ 417.11 and 431.73. In addition, it would allow an applicant to request approval of an alternate method for requesting license modifications during the application process. This option currently only exists in § 437.85 for experimental permits.

Under the current regulations, an operator must ensure that any representation contained in a license application is accurate for the entire term of a license. After the FAA issues a launch license, an operator must apply to the FAA for a license modification if any representation that is material to public health and safety or safety of property is no longer accurate (commonly referred to as ''material change''). An application to modify a license must be prepared and submitted in accordance with part 413. The licensee must indicate what parts of its license application or license terms and conditions would be affected by a proposed modification.

Although license applications are often updated during the application process, the application, as fixed at the time of license issuance, becomes part of the licensing record. After issuing the license, the FAA deems any material change to a representation in the application to be a modification to the license. However, changes may occur after a license is issued, particularly among operators that are developing new systems or incorporating innovative technology. The FAA does not wish for the material change requirement to deter those changes intended to improve operations. Although the FAA and operators may not always agree on what constitutes a material change, the FAA works with the operator to resolve any issues and reduce uncertainties.

Regarding compliance with an issued license, the ARC recommended that information needed prior to each launch, as long as it is within the approved flight envelope, should be minimized and a centralized, automated

[176] The Commercial Spaceflight Federation (CSF) states that its mission is ''to promote the development of commercial human spaceflight, pursue ever-higher levels of safety, and share best practices and expertise throughout the industry.'' Its member businesses and organizations include commercial spaceflight developers, operators, spaceports, suppliers and service providers.

[177] ARC Report, p. 48.

system for submitting preflight information should be established. Continuing accuracy reviews should be limited to an assessment of the risks created by the change. The ARC further recommended that if the regulations continued to use the term ''material change,'' then that term should be defined in the regulations, guidance, or pre-application agreement.

The FAA agrees with the ARC's recommendations. While there already exist avenues by which a licensee can minimize the need for license modifications,[178] this rule would adopt an approach from § 437.85 where the FAA may identify the types of changes that a permittee may make to a reusable suborbital rocket design without invalidating the permit. In proposed § 450.211, the FAA may approve an alternate method for requesting license modifications if requested during the application process. The FAA envisions that this approach would permit an applicant during the application process to propose a method that is responsive to its anticipated types of changes after a license is issued.

Regarding the recommendation for the development of a centralized automated system for submitting preflight information, while the FAA has been flexible in accepting application material and license updates submitted in electronic format, it recognizes that an improved system is desirable. The FAA is exploring mechanisms to facilitate these submissions.

Finally, the FAA agrees with the ARC recommendation that it should develop guidance on what constitutes a ''material change'' and has identified the following areas that often constitute a material change:

1. Safety-critical system or component changes (*e.g.,* flight safety system) that may affect public safety, including—

a. Substitution of an existing safety-critical component with a component with a new part number or manufacturer (reflecting changed dimensions, changed functional or performance specifications, or changed manufacturing process).

b. Modifications to a safety critical component deemed necessary by an anomaly investigation, and requiring re-verification by test or inspection.

c. Rework or repair of a safety-critical component after inspections or tests revealed fabrication or assembly imperfections.

d. Reuse, after an earlier launch or reentry, of safety-critical systems or components, requiring refurbishment, re-qualification testing, and re-acceptance testing.

2. Hazard analysis changes that may affect public safety such as the validity of the hazard analysis, mitigation measure, or verification of a safety critical system or component.

3. Flight safety rule changes that may affect public safety such as flight commit criteria associated with public safety.

4. Hazard area changes that may affect public safety, including the dimensions of the area.

5. Maximum Probable Loss (MPL) related changes that affect the validity of the assumptions used to establish the MPL (*e.g.,* change in the number of personnel within a hazard area, change in trajectory resulting in more overflight of people or property, increase in vehicle size with more propellant, hazardous materials, or potential debris).

6. Environmental Assessment related changes that affect the validity of an environmental assessment (*e.g.,* changes to mitigation measures outlined in a record of decision or environmental impact statement).

7. Safety organization changes that may affect public safety such as changes to the roles and responsibilities of the safety organization or personnel, including changes in contractual safety services.[179]

8. Critical documents or processes that may affect public safety.

The FAA believes that this list provides guidance to help operators better understand what constitutes a material change. As the industry continues to develop and the FAA identifies material changes, it will consider providing more detailed guidance.

Other Changes

A. Pre-Application Consultation

As discussed earlier, the ARC recommended that the FAA require the pre-application process only for new operators or new vehicle programs. For all other operations, the ARC recommended that pre-application occur at the operator's discretion.[180] The FAA does not agree that pre-application should be discretionary for anyone. In light of the various flexibilities proposed in this rule, pre-application consultation would remain critical to assist operators with the licensing process, especially those that choose to avail themselves of the flexibilities provided in this proposal. These flexibilities include incremental review, timelines, and the performance-based nature of many of the regulatory requirements. Pre-application consultation eases the burden on both the applicant and the FAA during the application process by identifying and resolving issues that allow applicants to submit application materials the agency can accept as complete enough for review. That being said, pre-application consultation with an experienced operator conducting an operation substantively similar to one previously licensed would likely be an abbreviated process.

In response to the ARCs request for defined review times, the FAA considered an approach to pre-application consultation that would culminate in a mutually agreeable ''compliance plan.'' Under this approach, a compliance plan would be developed collaboratively between the applicant and the FAA. Key milestones that could be established by the compliance plan would include, but would not be limited to, the planned dates of the formal application submittal, the FAA's licensing determination, and the submission of any required information that is unavailable at the time of formal application submittal. The FAA chose not to propose this requirement because it could be overly burdensome, possibly delay an application submittal, and the compliance plan could require frequent updates. However, the FAA would be open to commenters' views on how to best develop a voluntary pre-application product, such as a compliance plan.

B. Policy Review and Approval

The FAA currently reviews a launch and reentry license application to determine whether it presents any issues affecting national security

[178] A license applicant may circumvent or lessen the need for frequent license modification due to material change by providing in its application a range of payloads, flight trajectories, hazard areas, and orbital destinations, so as to encompass more flexibility in actual licensed operations. A license applicant may also create acceptable processes for making changes to safety critical systems and their components, mission rules, hazard areas, and safety organization, that limit the need for license modifications. Part of these processes would include a mechanism for informing FAA of the change.

[179] As discussed earlier in the preamble, the proposed rule would eliminate the current requirement to name a specific individual as the safety official. Instead, the NPRM would allow for one person or several persons to perform the safety official functions, and, the operator would be required to designate a position, not a specific individual, to accomplish the safety official functions. Therefore, under this proposal, if the operator changes the specific individual performing the safety official functions, that would not constitute a material change.

[180] ARC Report, p. 23.

interests, foreign policy interests, or international obligations of the United States. As part of its review and in accordance with section 50918 of the Act, the FAA consults with the Department of State, Department of Defense, and other executive agencies, as appropriate. The Department of Defense assesses the effect of the launch on U.S. national security, and the Department of State assesses its effect on foreign policy interests and international obligations of the United States. For good practice, the FAA also consults with NASA, the Department of Commerce's National Oceanic and Atmospheric Administration (NOAA), and the Federal Communications Commission (FCC), for counsel on those U.S. interests related to the primary responsibilities of each agency. As such, the FAA coordinates with the FCC and NOAA over matters related to frequency licensing and Earth imaging, respectively, and with NASA for matters particularly related to its assets in space.

Section 415.25 currently contains application requirements for a policy review of the launch of a vehicle other than an RLV, § 431.25 for the launch and reentry of an RLV, and § 435.23 for the launch of a reentry vehicle other than an RLV.[181] To date, these informational requirements have served their purpose well. However, the FAA believes that the current informational requirements should be modified to relieve the applicant of unnecessary burden and to improve the utility of the information requested for a policy review. Currently, §§ 415.25(b) and 431.25(b) both require an applicant to identify structural, pneumatic, propellant, propulsion, electrical and avionics systems. Section 431.25(b) also requires an applicant to identify thermal and guidance systems used in the launch vehicle, and all propellants. Although identifying the aforementioned systems is important for a safety review, the FAA believes that this information is not critical for a policy review, which addresses whether the launch or reentry presents issues affecting national security interests, foreign policy interests, or international obligations of the United States.

The FAA proposes to consolidate the policy review requirements contained in §§ 415.25 and 431.25 under proposed § 450.41 (Policy Review and Approval). In doing so, the FAA would retain the substance of the current requirements while further tailoring the informational requirements toward a policy review. Also, the FAA would replace the launch or reentry vehicle description requirements with vehicle description requirements that are more appropriate for a policy review. Finally, the FAA would require the applicant to provide flight azimuths, trajectories, and associated ground tracks and instantaneous impact points, and contingency abort[182] profiles, if any, for the duration of the licensed activity.

Specifically, proposed § 450.41(e)(2) would replace the current requirement to identify structural, pneumatic, propulsion, electrical, thermal, guidance and avionics systems with a requirement to describe the launch or reentry vehicle and any stages, including their dimensions, type and amounts of all propellants, and maximum thrust. As previously mentioned, currently required information is not critical for a policy review because policy determinations do not require the same level of technical detail as a safety review and do not need to delve into vehicle design specifics. Instead, the information required by proposed § 450.41(e)(2) would provide the FAA and its interagency partners with the scope of the proposed activity that is more pertinent to a policy review. Moreover, the FAA anticipates that the proposed changes would be significantly less burdensome for an applicant, as the information is readily available and requires minimal effort to provide. In contrast, the currently required information, while also readily available, might be extensive and require more effort to compile.

Additionally, it is unclear that the requirements to supply flight azimuths, trajectories, and associated ground tracks and instantaneous impact points, currently found in §§ 415.25(d)(2) and 431.25(d)(2), apply for the duration of the licensed activity (*i.e.,* from lift-off to the end of licensed activities). For example, applicants previously have interpreted the requirement to supply flight azimuths and trajectories to end at orbital insertion because that is when ground tracks and instantaneous impact points vanish. However, during interagency coordination for policy reviews of orbital missions, NASA and the Department of Defense have repeatedly, and specifically, requested information from the FAA concerning the trajectories of upper stages after orbital insertion in order to determine the potential for the proposed mission to jeopardize the safety of government property in outer space or national security.

Therefore, in addition to consolidating §§ 415.25(d)(2) and 431.25(d)(2) into proposed § 450.41(e)(4)(ii), the FAA would add language to clarify that the requirement to supply flight azimuths, trajectories, and associated ground tracks and instantaneous impact points applies for the duration of the licensed activity (*i.e.,* lift off to the end of launch). This clarification would eliminate the need for the FAA to request additional information from an applicant to satisfy inquiries from NASA and the Department of Defense during policy reviews and prevent any unnecessary delays to the policy review process.

C. Payload Review and Determination

The FAA proposes to consolidate the payload review requirements. The agency would also remove the requirement to identify the method of securing the payload on an RLV, add application requirements to assist the interagency review, such as the identification of approximate transit time to final orbit and any encryption, clarify the FAA's relationship with other federal agencies for payload reviews, and modify the 60-day notification requirement currently found in §§ 415.55 and 431.53.

While speaking of payload reviews, it is important to keep in mind the definitions of launch vehicle and payload as defined in FAA regulations. The FAA is not proposing to amend these definitions. A launch vehicle is a vehicle built to operate in, or place a payload in, outer space or a suborbital rocket. A payload is an object that a person undertakes to place in outer space by means of a launch vehicle, including components of the vehicle specifically designed or adapted for that object. Thus, a payload can become a reentry vehicle. For example, the Dragon is a payload when it is launched on the Falcon 9 and a reentry vehicle when it reenters from Earth orbit. The FAA believes that any component attached to, or part of, a launch or reentry vehicle that has an intended use in space other than transporting itself or a payload, is in fact a payload. For example, the FAA has treated canisters of cremains attached to a stage left in orbit as payloads.

[181] These sections require an applicant to provide basic information about the launch or reentry vehicle, its ownership, launch site, flight azimuths, trajectories, associated ground tracks and instantaneous impact points, sequence of planned events or maneuvers during flight, range of nominal impact areas for all spent motors and other discarded mission hardware, and for each orbital mission, the range of intermediate and final orbits of each vehicle upper stage, and their estimated orbital lifetimes.

[182] The FAA proposes to revise the definition in § 401.5 of "contingency abort" to mean a flight abort with a landing at a planned location that has been designated in advance of vehicle flight. The proposed definition is discussed later in this preamble.

Pursuant to § 415.51, unless the payload is exempt from review under § 415.53, the FAA reviews a payload proposed for launch to determine whether an applicant, payload owner, or operator has obtained all the required licenses, authorization, and permits. The FAA further determines whether a payload's launch would jeopardize public health and safety, safety of property, U.S. national security or foreign policy interests, or international obligations of the United States. Similarly, both § 431.51 for launch and reentry of an RLV and § 435.41 for reentry of a reentry vehicle other than an RLV, require the FAA to review a payload to examine the policy and safety issues related to the proposed reentry of a payload.

Current §§ 415.59 and 431.57 also require the applicant to submit basic payload information to allow the FAA to conduct a payload review. While the information requirements for payload review in §§ 415.59 and 431.57 are similar, they are not identical. Both sections require that an applicant provide the payload's physical dimensions and weight; owner and operator; orbital parameters for parking, transfer, and final orbits; and hazardous materials, as defined in § 401.5, and radioactive materials, and the amounts of each. However, § 415.59 requires an applicant to provide the name and class of the payload, the intended payload operations during the life of the payload, and the delivery point in flight at which the payload will no longer be under the licensee's control. Whereas, § 431.57 requires an applicant to provide either the payload name or payload class and function; the physical characteristics of the payload in addition to the payload's dimensions and weight; the explosive potential of payload materials, alone and in combination with other materials found on the payload or RLV during reentry; and the method of securing the payload on the reusable launch vehicle. It also replaces delivery point with designated reentry site(s); and requires the identification of intended payload operations during the life of the payload. With respect to hazardous materials, § 431.57 also requires the applicant to identify the container of the hazardous materials, in addition to the type and amount, because how the hazardous materials are contained is important for reentry.

The FAA believes that the current payload review informational requirements necessitate modification to improve the utility and efficiency of payload review. During interagency review, other agencies have requested information from the FAA for the amount of time a payload will take to reach its final orbital destination. This information allows the agencies to assess the payload's potential to impact their operations. However, current regulations do not contain an informational requirement that the applicant provide this information. As a result, the FAA often must make additional requests to the applicant in order to provide the requesting agencies with the information.

In the past, most non-government payloads were telecommunications or remote sensing satellites for which there were well-established regulatory regimes. Operators are now proposing payloads with new intended uses such as servicing other satellites and mapping frequency use. The capabilities of payloads continue to grow; for example, cubesats are appearing in great numbers with unique capabilities. As a result, it is possible that these new uses may pose threats to national security, such as the resolution of on-board cameras that might be used to survey national security space assets. Consequently, payload reviews increasingly need to address the threat that these new uses and capabilities might pose to U.S. national security, either unintentional or malicious.

Additionally, § 415.53 provides that the FAA does not review payloads regulated by the FCC or the Department of Commerce. Section 431.51 provides that the FAA does not review payloads subject to regulation by other federal agencies. However, neither of these regulations reflect current practice. In practice, the FAA includes payload information in its interagency reviews for all payloads, with the exception of certain U.S. Government payloads for which information is unavailable due to national security concerns, because § 415.51 provides that the safety requirements apply to all payloads, regardless of whether the payload is otherwise exempt. Even though the FAA conducts a review of all payloads, the FAA does not impinge on the authority of the FCC or the Department of Commerce, nor question the decision of the FCC or NOAA to approve communications or remote sensing satellites. It does not question the decision of another federal agency concerning its payloads. More accurately, while the FAA may conduct a review of all payloads, the FAA does not make a payload determination on what it considers an ''exempt'' payload.

Changes in the types of payloads that are being launched or proposed have also complicated the scope of FAA payload reviews and demonstrated that the language exempting certain payloads from review is overly restrictive. The FAA has made payload determinations for payloads that will undoubtedly require FCC or NOAA licensing, but the proposed payload missions were beyond the scope of communications or remote sensing. These payloads were examined in the interagency process and neither the FCC nor NOAA took exception to the FAA's approach.

Section 50918 of Title 51 of the U.S. Code mandates that the Secretary of Transportation consult with the Secretary of Defense on matters affecting national security, the Secretary of State on matters affecting foreign policy, and the heads of other agencies when appropriate. Section 50919(b) states that chapter 509 of Title 51 does not affect the authority of the FCC or Department of Commerce. The language of FAA regulations exempting from review those payloads subject to the jurisdiction of the FCC, NOAA, and other agencies, is more restrictive regarding the FAA's authority than what is required in the statutory mandate of 51 U.S.C. 50918 and 50919. The genesis of this more-limited role by the FAA came from the Report of House of Representatives, May 31, 1984, that accompanied H.R. 3942. Specifically, the report stated: ''[t]he Committee intends that the Secretary not review or otherwise evaluate the merits of communications satellites licensed and approved by the FCC, other than to assure the proper integration of such payload with the launch vehicle and its launch into orbit.'' At that time, almost all non-government payloads were communications or remote sensing satellites, regulated by the FCC and NOAA, respectively.

When DOT published the initial licensing regulations in 1988, the preamble noted that the payloads subject to existing payload regulation included only telecommunications satellites licensed by the FCC and remote sensing satellites licensed by NOAA. It went on to state that payloads that were not subject to review by DOT included all domestic payloads not presently regulated by the FCC or NOAA and all foreign payloads. Almost any domestic payload, even if it is not a telecommunications satellite, however, requires FCC licensing because it will invariably have a U.S.-owned or -operated transmitter for telemetry purposes. Therefore, it appears that the intention of the rule was only to exclude from FAA regulation telecommunications satellites licensed by the FCC and likewise, remote sensing satellites licensed by

NOAA, and not any satellite with a transmitter licensed by the FCC or with some incidental remote sensing capability.

In recent years, there have been proposals for commercial payloads where the primary purpose might be scientific or exploratory or even artistic. Despite their primary purpose, these payloads almost always require an FCC license because they have transmitters for telemetry. Similarly, some payloads also require approval by NOAA even though remote sensing may be ancillary to the main purpose. Without an interagency review, the FAA has no direct means of knowing whether a payload is exempt from review and, as a result, has initiated interagency reviews. These reviews also serve the purpose of alerting the other agencies to launches of payloads that might jeopardize U.S. national security or foreign policy interests, or international obligations of the United States, even if they are exempt from an FAA payload review. Although the FAA has not to date been faced with the Department of Defense or the Department of State raising concerns through the interagency review regarding national security or foreign policy for an ''exempt'' payload, the FAA believes that it would be its responsibility to convey those concerns to the appropriate agencies for resolution.

The ARC asserts that the payload reviews being conducted are more detailed than necessary to assure the protection of ''public health and safety.'' The ARC recommended that payloads that stay within the vehicle, have non-hazardous materials, or those that have previously been approved for flight, should not require reviews. It recommended that safety goals can be met by only requiring reviews for hazardous payloads that could impact ''public health and safety.'' The ARC also stated that it would be more cost effective to regulate only hazardous payloads ejected from the launch vehicle in reportable quantities using the existing standards in 49 CFR 172.101. It believes such an approach would reduce unnecessary paperwork and subsequent FAA review for ''benign payloads,'' and the reduction of burden on the FAA to review ''non-safety related payloads'' would support industry's increased flight tempo and reduce FAA review times.

The FAA does not agree with the ARC recommendation that payloads that stay within the vehicle, payloads that are non-hazardous materials, or those that have previously been approved for flight should not require reviews. The fact that a payload remains on or within the launch or reentry vehicle does not change the function of the payload. The payload's intended use in space or changes in the orbit of the vehicle to accommodate the payload operation might present issues because it could affect NASA or Department of Defense assets either due to its orbit or function. For example, the Department of Defense has concerns regarding payloads that may pass close enough to its assets to photograph them. The FAA recognizes that some payloads, such as canisters of cremains, attached to an upper stage, might have little or no safety or policy implications. However, a review is still necessary to make that determination. Obviously, the absence of hazardous materials also removes some safety concerns; however, as previously discussed, hazardous materials are not the only concern addressed in the payload review.

While payloads that stay within a vehicle, do not contain hazardous materials, or have previously been approved may require less scrutiny, a payload review is still required because the FAA is statutorily mandated under 51 U.S.C. 50904(c) to determine whether a license applicant or payload owner or operator has obtained all required licenses, authorization, and permits. If no license or authorization or permit is required by another federal agency, the FAA must determine whether a launch would jeopardize public health and safety, safety of property, U.S. national security or foreign policy interests, or international obligations of the United States. Similarly, while potentially it might be more cost effective to regulate only hazardous payloads ejected from a launch vehicle in reportable quantities using existing standards in 49 CFR 172.101, the FAA must still comply with the statutory requirements imposed on it by 51 U.S.C. 50904(c). Both the FAA's current and proposed regulations reflect this statutory requirement.

As for payloads that have previously been approved for launch, the FAA already authorizes classes of payloads under §§ 431.53 and 415.55, but it still requires identification of the specific payload at least 60 days prior to the launch in order to confirm that the payload fits within the authorized class and to coordinate with other federal agencies. The FAA currently does not make a new payload determination if a payload fits within a class of payloads authorized under a particular license, but the review is still necessary to confirm there are no issues that affect public health and safety, the safety of property, or national security. The more defined the payload class, the less the likelihood of any issues once the specific payload is identified. For series of virtually identical payloads, the FAA has authorized the entire series. A payload or launch operator can work with the FAA to facilitate and expedite payload approvals by defining payload classes to accommodate possible payloads. Also, payload classes authorized for one operator will usually be authorized for another operator. The FAA acknowledges that the current 60-day notification requirement might be unnecessary for certain well-defined payload classes and proposes to modify this requirement to permit a shorter notification on a case-by-case basis. The FAA anticipates that the notification requirement would be specified either in the separate payload determination or in a vehicle operator license.

The ARC recommended that payloads that contain hazardous materials in Federally-reportable quantities be reviewed in 15 days. The FAA does not agree with the ARC's recommendation because there are other considerations regarding intended operations in space that might affect national security or the safety of property. For example, a payload may have the capability of observing or interfering with U.S. national security assets or violate a provision of a treaty.

The FAA proposes to consolidate the requirements for a payload review currently contained in subparts D of parts 415, 431, and 435 in proposed § 450.43 (Payload Review and Determination). The proposed consolidation would retain most of the current payload review requirements. The limited changes the FAA proposes to the payload requirements are discussed in this section.

The FAA proposes to modify the relationship with other agencies by removing the misleading statement that the FAA does not review payloads that are subject to regulation by the FCC or the Department of Commerce. Specifically, the FAA proposes to modify the regulation to reflect that while it does not review those aspects of payloads that are subject to regulation by the FCC or the Department of Commerce, it still reviews the payloads to determine their effect on the safety of launch. The FAA also consults with other agencies to determine whether their launch would jeopardize public health and safety, safety of property, U.S. national security or foreign policy interests, or international obligations of the United States. Proposed § 450.43(b) would provide that the FAA would not make a payload determination over those aspects of payloads that are subject to regulation by the FCC or the

Department of Commerce. The FAA does not intend to interfere with any requirement that these agencies might impose or with approvals or denials. This clarification is merely a recognition of current practice regarding payloads that do not easily fit into the existing regulatory rubric.

The FAA also proposes not to retain the specific reference to NOAA in § 415.53(a). Although commercial remote sensing is currently licensed by NOAA's Office of Commercial Remote Sensing Regulatory Affairs (CRSRA), the Secretary of Commerce recently proposed merging CRSRA with NOAA's Office of Space Commerce and moving them directly under the Office of the Secretary of Commerce. As a result, proposed § 450.43(b) would revise the description of which payloads are exempt, to clarify that a payload planning to conduct remote sensing operations would be exempt if licensed by any office within the Department of Commerce.

In consolidating the informational requirements in parts 415, 431, and 435, the FAA proposes to eliminate information requirements concerning the method of securing a payload that was a requirement under § 431.57(g) for RLVs because that information is not relevant to a payload review. The FAA considered replacing that informational requirement with a more general one to provide the potential of the payload to affect the dynamics of the vehicle. However, the FAA determined such information was more pertinent to the vehicle operator and should instead be included in systems safety analysis for the launch or reentry, if appropriate.

Proposed § 450.43(i)(1) also would require an applicant to provide an expanded description for the payload that would include its composition and any hosted payloads in addition to the current requirements of physical dimensions and weight. The FAA proposes to ask for any foreign ownership of the payload or payload operator. In addition, the FAA would add the approximate transit times to final orbit for the payload. The FAA proposes to elaborate what it means by intended payload operations during the life of the payload by adding its anticipated life span and any planned disposal. Further, it proposes a requirement to describe any encryption associated with data storage on the payload and transmissions to or from the payload. Encryption helps ensure against cyber intrusion, loss of spacecraft control, and potential debris-causing events. The FAA is proposing these additions to the information requirements for launches to assist other federal agencies because NASA and the Department of Defense frequently have requested this information in response to the FAA's interagency review in order to determine whether the proposed payload would jeopardize the safety of government property in outer space, or U.S. national security.

The FAA also proposes to add a general requirement that it may request any other information necessary to make a determination based on public health and safety, safety of property, U.S. national security or foreign policy interests, or international obligations of the United States. The FAA believes that it would rarely invoke this provision but believes that it is crucial to address unique payloads.

The FAA anticipates that for payload classes—as distinguished from specific payloads—the applicant might only be able to provide a range of expected transit times and would find this acceptable. Similarly, for classes of payloads the FAA would find it appropriate to provide ranges for information related to size of the payload and quantities of hazardous materials. It also proposes to add the explosive potential of payload materials, alone and in combination with other materials on the payload for launches, as it already does for reentries because the information is equally relevant to the safety of a launch as for a reentry.

The FAA anticipates that these additional data requirements would impose minimal burden, if any, on the applicant. For example, the payload operator should already have detailed plans for moving its payload to its final destination, and the explosive equivalent for most materials is easily calculated using readily-available information. As another example, in requesting information about what encryption, if any, is used, the FAA is not asking for a detailed account of encryption methodology. Many operators are already using 256-bit Advanced Encryption Standard encryption (AES–256) to protect commercial telemetry, tracking, and control data links and mission data transmission or storage. In this case, an operator would only need to state that it uses AES–256. These additional data requirements help inform the overall evaluation of a payload.

By specifying in its regulations what is required to expedite the FAA's payload review process without the need to make supplemental requests to an applicant to address interagency concerns, and the applicant would avoid having to respond to such requests. The FAA seeks comment on this proposed approach.

D. Safety Review and Approval

As part of its current licensing process under parts 415 and 431, the FAA conducts a safety review to determine whether a proposed launch or reentry will jeopardize public health and safety and safety of property. The FAA would not change the philosophy or purpose of a safety review in this rulemaking. As with the current regulations, an applicant would have to satisfy the safety requirements in order to obtain a license to conduct a launch or reentry. Only a vehicle operator license applicant would be eligible to apply for a safety approval, and may apply for a safety approval separately and incrementally. As with current regulations, the FAA would advise an applicant, in writing, of any issues raised during a safety review that would impede issuance of a license, and the applicant may respond in writing, or amend its license application in accordance with § 413.17. This proposal would also not change the process by which the FAA denies a license, and the recourse afforded an applicant if a license is denied.

For launches and reentries from, or to, a Federal launch range or any launch or reentry site where a Federal launch range provides safety-related launch or reentry services or property by contract, the FAA would accept the service or property as meeting the relevant requirements of proposed part 450, as long as the FAA determines that the Federal launch range's safety requirements for the launch or reentry services or property provided satisfy those requirements. Note that a Federal launch range could, at the direction of the operator, provide FSA products such a debris risk analyses or flight safety limits analyses, directly to the FAA on behalf of an operator.

While the FAA is not proposing to change the philosophy and purpose of a safety review and approval, the FAA is proposing changes to the requirements to obtain a safety approval. The FAA proposes to locate the application requirements for a safety approval in proposed § 450.45 (Safety Review and Approval), in paragraph (e), and throughout proposed subpart C.

The application requirements in proposed § 450.45(e) are general and not specific to any safety requirement, and would include information not covered explicitly in proposed subpart C. Proposed § 450.45(e)(1) would address basic requirements for an application, such as the inclusion of a glossary of terms and a listing of referenced material. This proposed requirement is similar to current § 415.107, although

the proposed regulation would not include the requirement for an application to be logically organized, with a clear and consistent page numbering system, and topics cross-referenced. The FAA expects an applicant to ensure its application meets these basic organizational standards without explicitly requiring them.

In proposed § 450.45(e)(2), the FAA would require an applicant to submit information about its launch or reentry site. This proposed requirement is similar to current § 415.109(a), with the addition of references to a reentry site.

In proposed § 450.45(e)(3), the FAA would require an applicant to submit information about its launch or reentry vehicle, including safety critical systems. This proposed requirement is similar to current § 415.109(b), but would include reentry vehicles in addition to launch vehicles.

In proposed § 450.45(e)(4), the FAA would require an applicant to submit a generic launch or reentry processing schedule that identifies any readiness activities, such as reviews and rehearsals, each safety-critical preflight operation, and day of flight activities. Although the proposed regulations do not necessarily require reviews or rehearsals, should the applicant propose them to meet readiness requirements, they should be included in the schedule. This proposed requirement is similar to current § 415.119, but with the addition of reentry vehicles.

Proposed § 450.45(e)(5) would apply to any proposed launch or reentry with a human being on board the vehicle, and would require an applicant to demonstrate compliance with certain safety requirements in part 460. This proposed requirement is similar to current § 415.8, except that it would include reentry vehicles.

Proposed § 450.45(e)(6) would address the potential launch or reentry of radionuclides, similar to current § 415.115(b) but with the addition of reentries. Because such proposals are rare, it is the current practice of the FAA to address the public safety issues on a case-by-case basis. This proposed rule would not change this approach.

Lastly, in proposed § 450.45(e)(7), the FAA would reserve the right to request additional information if necessary. This request would include information incorporated by reference in the license application, such as a previous application submittal. The FAA could also request additional products that would allow the FAA to conduct an independent safety analysis. The FAA periodically conducts independent system safety and flight safety analyses in order to gain a deeper understanding of the safety issues associated with a launch or reentry proposal. This independent analysis is particularly important for novel systems or operations. The FAA proposes to continue this practice with this rulemaking.

Proposed subpart C would contain the remainder of the application requirements for a safety approval. With some exceptions, discussed later, each safety requirement in proposed subpart C has application requirements articulated at the end of each section. Under current regulations for ELVs, application requirements are contained in part 415, while safety requirements are contained in part 417. Under current regulations for RLVs contained in part 431, application requirements and safety requirements are not distinguished so clearly. The proposed approach is designed to clearly separate safety requirements from application requirements.

However, the following proposed sections do not include application requirements, either because they introduce other sections or because the FAA would not require a demonstration of compliance to obtain a license:

1. § 450.101: This section would address the core public safety criteria for launching a launch vehicle or reentering a reentry vehicle. An applicant would demonstrate that it can meet these criteria in other parts of proposed subpart C.

2. § 450.113 (Flight Safety Analysis Requirements—Scope and Applicability): This section would address the scope and applicability of the FSA requirements contained in §§ 450.113 through 450.141.

3. § 450.157: This section would include requirements for communication procedures, but an applicant would not have to demonstrate compliance with this section in order to obtain a license.

4. § 450.159: This section would include requirements for preflight procedures. Similar to proposed § 450.157, an applicant would not have to demonstrate compliance with this section in order to obtain a license.

5. § 450.169: This section would include requirements for launch and reentry collision avoidance analysis. An applicant would not have to demonstrate compliance with this section in order to obtain a license, but it would have to provide certain information to the FAA prior to a launch or reentry.

6. § 450.179 (Ground Safety—General): This section would address the scope and applicability of the ground safety requirements contained in §§ 450.181 (Coordination with a Site Operator) through 450.189.

E. Environmental Review

The FAA proposes to consolidate environmental review requirements for launch and reentry operators in a single section, as proposed § 450.47 (Environmental Review). Currently, these requirements are set forth in §§ 415.201, 415.203, 431.91, 431.93, and 435.61. In addition, the FAA proposes to revise current §§ 420.15, 433.7, 433.9, and 437.21 to conform to the changes in proposed § 450.47. Apart from consolidation, these proposed revisions would not alter the current environmental review process.

The FAA is responsible for complying with the National Environmental Policy Act (NEPA) and other applicable environmental laws, regulations, and Executive Orders prior to issuing a launch or reentry license. To comply with NEPA, the FAA must first determine whether the licensing action requires a Categorical Exclusion (CATEX), an Environmental Assessment (EA), or an Environmental Impact Statement (EIS). A CATEX is appropriate when actions, individually or cumulatively, do not have a significant effect on the human environment. An EA broadly documents evidence and analysis necessary to determine whether a proposed action may significantly affect the human environment requiring the preparation of an EIS or results in a finding of no significant impact (FONSI). If the action may significantly affect the human environment, NEPA requires preparation of an EIS. An EIS is a thorough analysis of a proposed action's impacts on the environment, including a public involvement process.

Under current FAA practice, the issuance of a new launch or reentry license does not fall within the scope of a CATEX. However, an applicant may provide data and analysis to assist the FAA in determining whether a CATEX could apply (including whether an extraordinary circumstance exists) to a license modification. Examples include modifications that are administrative in nature or involve minor facility siting, construction, or maintenance actions. If a CATEX does not apply to the proposed action, but it is not anticipated to have significant environmental effects, then NEPA requires the preparation of an EA instead. The FAA may prepare an EA using applicant-provided information. In the alternative, an applicant may prepare an EA with FAA oversight. When NEPA requires an EIS for commercial space actions, the FAA uses third-party contracting to

prepare the document. That is, the FAA selects a contractor to prepare the EIS, and the license applicant pays the contractor. Finally, if an EA or EIS was previously developed, the FAA may require a written re-evaluation of the environmental document to ensure the document's continued adequacy, accuracy and validity.[183]

This proposed rule would not alter the current environmental review requirements. However, the consolidation of the launch and reentry regulations would require a consolidation of the environmental review requirements.

F. Additional License Terms and Conditions, Transfer of a Vehicle Operator License, Rights Not Conferred by a Vehicle Operator License

As discussed earlier in this preamble, the FAA proposes to consolidate, under proposed part 450, the differing types of launch and reentry licenses, currently in parts 415, 431, and 435, into a single vehicle operator license. As part of this consolidation, the FAA would combine specified sections of parts 415, 431, and 435 into proposed sections of part 450, such that the consolidated requirements would apply to a single vehicle operator license. Except for these changes, the current requirements would remain the same. The specific proposed changes are identified below.

1. Additional Terms and Conditions

The FAA proposes to consolidate the current additional terms and conditions requirements in §§ 415.11, 431.11, and 435.11 into proposed § 450.9 (Additional License Terms and Conditions) without substantive change. Therefore, the proposed requirement would state that the FAA may amend a vehicle operator license at any time by modifying or adding terms and conditions to the license to ensure compliance with the Act and regulations.

2. Transfer of a Vehicle Operator License

The FAA proposes to consolidate the requirements to transfer a license in current §§ 415.13, 431.13, and 435.13 into proposed § 450.11 (Transfer of a Vehicle Operator License). Although the location of the requirements would change, the requirements themselves would not substantively change.

The proposed requirements would continue to provide that only the FAA may transfer a vehicle operator license; and, that an applicant must submit a license application to transfer a license according to the provisions of part 413 and the requirements of proposed part 450. Also, like the current requirements, the proposal would require an applicant to satisfy all of the approvals and determinations required under part 450 before the FAA would transfer a license to an applicant, and the FAA would retain the ability to incorporate by reference any findings made part of the record to support the initial licensing determination and to modify a license to reflect any changes necessary because of a license transfer.

3. Rights Not Conferred by a Vehicle Operator License

The FAA proposes to consolidate in proposed § 450.13 (Rights Not Conferred by a Vehicle Operator License) the requirements in current §§ 415.15, 431.15, and 435.15 regarding the rights that are not conferred by issuance of a license. Although the location of the requirements would change, the requirements themselves would not substantively change.

The proposed requirements would continue to state that issuance of a vehicle operator license does not relieve a licensee of its obligation to comply with all applicable requirements of law or regulation that may apply to its activities. In addition, the proposal would state the issuance of a license does not confer any proprietary, property or exclusive right in the use of any Federal launch range or related facilities, airspace, or outer space.

G. Unique Safety Policies, Requirements, and Practices

Proposed § 450.177 (Unique Policies, Requirements and Practices) would require an operator to review operations, system designs, analysis, and testing, and to identify any unique launch or reentry hazards not otherwise addressed by proposed part 450, consistent with current regulations and practice. An operator would be required to implement any unique safety policy, requirement, or practice needed to protect the public from the unique hazard. In its application, an operator would have to identify any unique safety policy, requirement, or practice, and demonstrate that each it protects public health and safety and the safety of property.

Proposed § 450.177 would also provide that the FAA may identify and impose a unique policy, requirement, or practice, as needed, to protect the public health and safety, safety of property, and the national security and foreign policy interests of the United States. In its application, an operator would need to demonstrate that each unique safety policy, requirement, or practice imposed by the FAA protects public health and safety, safety of property, and the national security and foreign policy interests of the United States.

Proposed § 450.177 is largely the same as § 417.127 with two differences. Section 417.127 requires an applicant to file a request for license modification for any change to a unique safety policy, requirement, or practice. The FAA would not incorporate this requirement in proposed part 450 because it is duplicative given the general license modification requirement in proposed § 450.177. Also, § 417.127 applies only when necessary to protect the public, whereas proposed § 450.177(b) would also apply to national security and foreign policy interests of the United States. This is necessary to cover the full scope of FAA's licensing authority.

The purpose for this proposed section is the same as for current § 417.127. As the space transportation industry continues to grow, advances in technology and implementation of innovations by launch and reentry operators will likely introduce new and unforeseen safety challenges. These unique challenges will require FAA officials and operators to collaborate on a case-by-case basis to identify and mitigate those unique hazards to public health and safety, safety of property, and the national security and foreign policy interests of the United States not specifically addressed by proposed part 450.

H. Compliance Monitoring

The FAA proposes to combine the compliance monitoring requirements of parts 417 and 431 into § 450.209 (Compliance Monitoring). In combining the requirements, the FAA would adopt § 417.23. The FAA currently conducts safety inspections to ensure a licensee complies with applicable regulations, the terms and conditions of its license, and representations the licensee made in its application.

Compliance monitoring requirements are codified in §§ 417.23, 431.83, and 435.51. Section 417.23 requires that a launch operator cooperate with and allow Federal officers or employees access to observe any of its activities associated with the conduct of a licensed launch, and provide the FAA with a console for monitoring the countdown's progress, and the communication on all channels of the countdown communication network. The requirements of §§ 417.23(a) and 431.83 are nearly identical in that both require a licensee to cooperate with and

[183] FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures,* provides a more detailed description of the FAA's policies and procedures for NEPA and CEQ compliance.

to allow Federal officers or employees access to observe any of its activities associated with the conduct of a licensed RLV mission. However, unlike § 417.23, § 431.83 does not require a licensee to provide a console to the FAA for monitoring all the channels on the countdown communication network.

Monitoring the communications channels—including countdown, anomaly, range coordination, surveillance, and weather—is a vital part of compliance monitoring and safety inspection operations, regardless of operation type. Under part 417, a licensee cooperates with the FAA and provides its inspectors with access and consoles to observe the activities associated with the licensed launch. As a result, the FAA is able to monitor all communication channels, and has access to the safety official and the mission director through the communications panel and through a phone line. FAA inspectors regularly monitor an operator's communications channels. In doing so, an inspector can become aware of issues that arise during a countdown. These issues may include vehicle health, ground operations, FSS health, range readiness, clearance of surveillance and hazard areas, weather, and countdown procedures. Additionally, listening to the communications channels also gives an inspector a sense of an operator's safety culture, rigor, and readiness. In addition, inspectors can communicate face-to-face with the safety official and the mission director, if necessary, because they are typically collocated.

Although there is a requirement in part 431, and incorporated by reference in part 435, that an operator cooperate with safety inspectors, there is no specific requirement for the licensee to provide access to all communication channels. The FAA has had to discuss with the operator what channels will be available for monitoring during these operations. Some operators have contended that their employees will not be as forthcoming with information if they know FAA inspectors are listening. However, being able to hear how the operator communicates during critical operations is necessary for inspectors to determine compliance and to address problems before they occur. Since inspectors cannot physically listen to all channels concurrently, an inspector will listen to one or more channels that can provide situational awareness and information used to determine compliance. The necessary discussions require additional time and may cause a delay, consume man-hours, and is a cost to both the government and the operator during the license application phase, or potentially during a launch countdown.

Regarding the contention that personnel are less likely to discuss problems if inspectors are monitoring their conversation, the FAA strives to be as unobtrusive as possible so as not to affect operations. Additionally, the purpose of compliance monitoring is not to punish operators. Rather, channel monitoring and on-site inspection allows inspectors to identify potential licensing issues and alert the operator, so it can take action to maintain or return to compliance. This approach ensures safety while minimizing impacts to the operator. There have been many instances where inspectors noticed incorrect test setups for FSS checks, for example, or other issues during compliance monitoring that would affect public safety, and informed the operator so they could be corrected before safety was impacted.

Compliance monitoring is important for ensuring public safety and requires that FAA safety inspectors be exposed to actual operations in order to be trained, qualified, and capable of performing their safety-critical role. Because safety inspectors are trained to detect non-compliances, they need to have access to, and the discretion to see and hear, as much of the operation as they deem necessary. Observing activities for training and familiarization purposes benefits both the inspectors and the operator because the more familiar an inspector is with an operation, the better he or she can perform the inspection. Knowledgeable inspectors cause less operational impacts because they ask fewer questions and are less likely to incorrectly identify a non-compliance.

The FAA proposes to combine the compliance monitoring requirements of §§ 417.23 and 431.83 in proposed § 450.209. The proposed regulation would primarily adopt those requirements in § 417.23, but ''launch operator'' would be replaced by ''licensee'', and ''licensed launch'' would be replaced by ''licensed launch or reentry.'' Additionally, the FAA proposes to allow an operator the option to provide the FAA with means other than a console for monitoring the communication and countdown channels. For example, a smaller company may operate without consoles, in which case the operator may provide the FAA with radio monitoring and a location in close proximity to the necessary data to monitor launch. As a result, the compliance monitoring requirements of proposed § 450.209 would apply to all launch and reentry operations, thereby capturing licensed launch operations under current part 417 and licensed RLV operations under current part 431. Proposed § 450.209 also codifies current FAA practice for conducting compliance monitoring of part 435 operations.

Proposed § 450.209(b) would require the licensee to provide the FAA with a console or other means for monitoring the countdown and communication network. This proposed requirement would alleviate the issues that result from extended negotiations. The option for ''other means'' would provide the operator with some flexibility, as the FAA recognizes that operations may occur with temporary infrastructure and a console may be an unrealistic request. In this case, the operator would be expected to provide the FAA with an alternative method to monitor communications that is approved by the FAA prior to operations.

I. Registration of Space Objects

The FAA proposes to consolidate the requirements for the registration of space objects in proposed § 450.217 (Registration of Space Objects). These requirements currently reside in §§ 417.19 and 431.85 and are largely identical. This proposal would not change the substantive requirements of either section, except to add a registration requirement for objects owned by a foreign entity.

The 1975 Convention on Registration of Objects Launched into Outer Space (Registration Convention), to which the United States is a signatory, requires details about the orbit of each space object. To that end, current regulations require an applicant to provide information on space objects that the FAA forwards to the Department of State. The Department of State then registers the objects with the United Nations as required by the Registration Convention. Since enacting these current regulations, the Department of State has requested that the FAA also provide this information for objects possibly owned by foreign entities.

Current registration of space objects requirements is codified in § 417.19, applicable to ELVs, and § 431.85, applicable to RLVs. The two provisions are substantively identical in all respects but one. That is, they both require the registration of any object placed in space by a licensed mission, unless the object is owned and registered by the U.S. Government or owned by a foreign entity. Similarly, both sections require the licensee to submit information about the space object's international designator, the date and location of the mission, the general function of the space object, and

the final orbital parameters. The sole substantive distinction is that § 431.85 also requires an operator to notify the FAA when it removes a space object.

Proposed § 450.217 would deviate from current §§ 417.19 and 431.85 by requiring the registration of foreign-owned space objects. The FAA would not require the licensee to determine the owner's nationality. The Department of State would use this information to ensure that other nations meet their obligations by registering their foreign objects. Proper registration of all objects owned by foreign entities would allow for the protection of the United States from liability associated with these objects.

Otherwise, the FAA would retain the same informational requirements. It would continue to require a licensee to submit information about the space object's international designator, the date and location of the mission, the general function of the space object, and the final orbital parameters. Additionally, proposed § 450.217 would retain current § 431.85's requirement that an operator notify the FAA when it removes a space object.

J. Public Safety Responsibility, Compliance With License, Records, Financial Responsibility, and Human Spaceflight Requirements

The FAA is not proposing any substantive changes to the requirements specified below. However, the agency is proposing to consolidate these requirements into the new, proposed part 450; clarify that the consolidated requirements apply to any licensed launch or reentry; and make other minor, clarifying edits. The following is a summary of the proposed changes:

1. Public Safety Responsibility and Compliance With License

The FAA would consolidate the public safety responsibility requirements in current §§ 417.7 and 431.71(a) into proposed § 450.201 (Public Safety Responsibility). Also, the FAA would move the compliance requirement in current § 431.71(b) to its own section, proposed § 450.203, Compliance with License. Although the location of these requirements would change, the requirements themselves would not change.

Therefore, proposed § 450.201 would provide that a licensee is responsible for ensuring public safety and safety of property during the conduct of a licensed launch or reentry. Proposed § 450.203 (Compliance with License) would require that a licensee conduct a licensed launch or reentry in accordance with representations made in its license application, the requirements of proposed part 450, subparts C and D, and the terms and conditions contained in the license.

The proposed requirement for a licensee to conduct a licensed launch or reentry in accordance with representations made in its license application is the same, in substance, to §§ 417.11(a) and 431.71(b). Section 417.11(a) states that a launch operator must conduct a licensed launch and carry out launch safety procedures in accordance with its application. Section 431.71(b) states that a licensee must conduct a licensed RLV mission and perform RLV safety procedures in accordance with representations made in its license application. The fact that representations made in a license application become binding on a licensee is discussed earlier in this preamble.

The proposed requirement for a licensee to conduct a licensed launch or reentry in accordance with the requirements of proposed part 450, subparts C and D, is the same, in substance, to § 417.1(b)(2)'s treatment of part 417 requirements. Section 417.1(b)(2) states that the safety requirements of part 417, subparts B through E, apply to all licensed launches of expendable launch vehicles. Part 431 does not have a similar requirement because application requirements and safety requirements are interlinked, leaving uncertain the actual safety requirements under a license. Note that in subpart C, the application requirement paragraphs do not apply once a license is issued, unless a licensee applies for a modification.

The proposed requirement for a licensee to conduct a licensed launch or reentry in accordance with the terms and conditions contained in the license is the same, in substance, to §§ 415.9(b) and 431.71(b). Section 415.9(b) states that a launch license authorizes a licensee to conduct a launch or launches subject to the licensee's compliance with terms and conditions contained in license orders accompanying the license. Section 431.71(b) states that a licensee's failure to comply with any license condition is sufficient basis for the revocation of a license or other appropriate enforcement action. The FAA includes terms and conditions in a license to address license-specific requirements. Under the proposal, a licensee's failure to act in accordance with these items would be sufficient basis to revoke a license, or some other appropriate enforcement action.

2. Financial Responsibility

The FAA would consolidate the current financial responsibility requirements in §§ 417.21 and 431.81 into proposed § 450.205 (Financial Responsibility Requirements). Although the location of the requirements would change, the requirements themselves would not change.

As such, the proposed regulation would require a licensee to comply with financial responsible requirements as required by part 440, and as specified in a license or license order.

3. Human Spaceflight

The FAA would consolidate the human spaceflight requirements in current §§ 415.8, 431.8, and 435.8 into proposed § 450.207 (Human Spaceflight Requirements). The proposal would require a licensee conducting a launch or reentry with a human being on board the vehicle to comply with human spaceflight requirements as required by part 460 of this chapter and as specified in a license or license order. Although the location of the requirements would change, the requirements themselves would not change.

4. Records

The FAA would consolidate the current record requirements in §§ 417.15(a) and (b) and 431.77(a) and (b) into proposed § 450.219(a) and (b). However, the FAA would replace the terms ''launch accident'' and ''launch incident'' in § 417.15(b) and the terms ''launch accident,'' ''reentry accident,'' ''launch incident,'' and ''reentry incident'' in § 431.77(b) with ''class 1 or class 2 mishap.'' As discussed in more detail earlier in this preamble, the FAA proposes to replace current part 401 definitions involving ''accident,'' ''incident,'' and ''mishap'' with specified mishap classes.

The proposed regulation would require an operator to maintain, for 3 years, all records, data, and other material necessary to verify that a launch or reentry is conducted in accordance with representations contained in the operator's application, the requirements of subparts C and D, and the terms and conditions contained in the license. To satisfy this requirement, the FAA expects an operator to keep a record of the actual conditions at the time of flight and any deviations outside of the flight commit criteria as specified in the current § 417.113(c). Similar to current requirements, in the event of a class 1 or class 2 mishap, an operator would be required to preserve all records related to the event until the completion of any

Federal investigation (which could be greater than 3 years) and the FAA has notified the operator that the records need no longer be retained. The operator would need to make all records required to be maintained under the regulations available to Federal officials for inspection and copying.

K. Applicability

1. General

Proposed § 450.1 (Applicability) would state that part 450 prescribes requirements for obtaining and maintaining a license to launch, reenter, or both launch and reenter, a launch or reentry vehicle. As discussed previously, proposed part 450 would consolidate licensing requirements currently covered in parts 415, 417, 431, and 435.

2. Grandfathering

Under proposed § 450.1(b), proposed part 450 would not apply to any launch or reentry that an operator elects to conduct pursuant to a license issued by the FAA or an application accepted by the FAA prior to the effective date of proposed part 450, with two exceptions. The proposed requirements for collision avoidance analysis (COLA) and asset protection would apply to all operators subject to the FAA's authority under 51 U.S.C. chapter 509 who are conducting launches after the effective date of the new regulations. The FAA would determine the applicability of proposed part 450 to an application for a license modification submitted after the effective date of the part on a case-by-case basis.

The proposed regulations are more performance based, and many of the current requirements would serve as a means of compliance to meet the proposed regulations. As a result, activities authorized under the existing regulations would be authorized under the proposed regulations. The FAA proposes to allow an operator to operate under the current regulations (specifically, parts 401, 415, 417, 431, and 435) when conducting a launch after the effective date of new part 450 provided it holds a license or has had a license application accepted prior to the effective date of this regulation. Pursuant to Space Policy Directive-3 [184] (SPD–3), proposed § 450.169 and proposed appendix A to part 450 would align the COLA criteria with current common practice and provide better protection for inhabitable and active orbiting objects. Additionally, § 450.101 would require that the probability of loss of functionality for each critical asset must not exceed 1×10^{-3} to protect national assets. For that reason, the FAA is proposing that all operators would be required to comply with these two provisions on this rule's effective date.

Because many of the current regulations would serve as a means of compliance for the proposed regulations, the FAA would review license modifications that applied the current regulations as means of demonstrating compliance with the proposed regulations. Additionally, an operator could use a means of compliance other than the current regulations to demonstrate compliance in a license modification request. The FAA would determine the applicability of proposed part 450 to an application for a license modification submitted after the effective date of the part on a case-by-case basis. The FAA does not anticipate that a vehicle operator would have any greater difficulty meeting the requirements under the proposed regulations than under the existing regulations. In fact, the FAA believes that the proposed regulations are more flexible because most allow for many different means of compliance.

An applicant for a renewal would be required to meet all the requirements of proposed part 450. The FAA anticipates that this would not be burdensome for operators seeking license renewals because there would be few, if any, additional application requirements that could not be fulfilled by reference to previously submitted information.

L. Equivalent Level of Safety

In addition to developing performance-based requirements, this proposal would preserve the equivalent-level-of-safety flexibility by relocating the provision to proposed § 450.37. Unlike using a means of compliance, which requires demonstration of compliance with a performance-based regulation, the ELOS provision would continue to allow an applicant to propose an alternative method to meet the safety intent of a current regulatory requirement. For example, § 450.117(d)(3) would require representative normal flight trajectory analysis outputs for each one second of flight. An applicant may wish to request an ELOS determination to the one-second interval, and the FAA would likely accept it if an alternative interval provides smooth and continuous individual P_C contours.

To demonstrate equivalent level of safety, an operator would provide a clear and convincing demonstration, through technical rationale, that the proposed alternative approach provided a level of safety equivalent to the requirement it would replace. An ELOS determination means an approximately equal level of safety as determined by qualitative or quantitative means. Under § 450.37(b), an operator would not be able to use an ELOS determination to replace the public risk criteria set forth in § 450.101.

In 2018, the FAA issued a final rule that expanded the option to satisfy commercial space transportation requirements by demonstrating an equivalent level of safety in order to provide more choice to operators and reduce the number of waivers that must be prepared by industry and processed by the government.[185] To utilize the option, operators are required to demonstrate that they are achieving a level of safety equivalent to any safety parameters specified in the regulations. The FAA evaluates every request for an alternative means of regulatory compliance under the ELOS provisions to ensure that the safety of the public, property, or any national security or foreign policy interest of the United States is maintained to be consistent with the requirements in 14 CFR chapter III. The FAA would preserve the process established in the 2018 rulemaking, and would include its ELOS determination as part of any license issued applying this provision.

The FAA requests comment on the potential use of ''safety cases'' when demonstrating an equivalent level of safety under proposed § 450.37. A safety case is a structured argument, supported by a body of evidence that provides a compelling, comprehensive, and valid case that a system is safe, for a given application in a given environment.[186] The ARC report (at p. 25) suggested that FAA review time could be minimize if applicant submittals were ''structured as a reasonable safety case that the proposed actions are safe under all plausible scenarios.'' In fact, the ARC suggested ''safety cases'' could be useful options several times. With respect to the proposed regulation, a safety case would potentially show that certain requirements identified by the applicant, excluding the requirements of § 450.101, need not be complied with per se in order to demonstrate that an alternative approach provides an equivalent level of safety to the

[184] *Space Policy Directive-3, National Space Traffic Management Policy,* 83 FR 28969 (June 21, 2018).

[185] *Updates to Rulemaking and Waiver Procedures and Expansion of the Equivalent Level of Safety Option,* Final Rule, 83 FR 28528 (June 20, 2018).

[186] This Safety Case definition is from the U.K. Ministry of Defence (MOD) Standard 00–56, ''Safety Management Requirements for Defence Systems.''

requirements identified by the applicant.

A–P–T Research, Inc., under contract to the FAA, recommended the use of a safety case approach as an alternate path to securing a license.[187] The FAA considered proposing a safety case approach to demonstrating an equivalent level of safety under proposed § 450.37 that would include a formal proposal process that must use a means of compliance accepted by the Administrator, unless the Administrator determines otherwise based on predicted public risks and consequences, or demonstrated reliability. The formal proposal process would: (1) Facilitate an FAA audit of all risk management methods proposed for use, including a demonstration of how the proposed methods can demonstrate compliance with § 450.101; (2) implement all the recommended improvements from the audit or justify all deviations from the recommended improvements; (3) document the risk management methods used and the verification evidence to demonstrate compliance with § 450.101; (4) facilitate an audit by an FAA-approved third party of the risk management methods used and the verification evidence to demonstrate compliance with § 450.101; and (5) submit the results of the third party audit for FAA review and approval. An applicant that sought to use this safety case approach would need to submit: (1) A description of their plan to facilitate an FAA audit of all risk management methods proposed for use, including a demonstration of how the proposed methods can demonstrate compliance with § 450.101; (2) a description of the improvements implemented based on the FAA audit and detailed justifications for any deviations from the FAA recommended improvements; (3) a description of the risk management methods used and the verification evidence to demonstrate compliance with § 450.101; (4) an agreement to facilitate an audit by an FAA-approved third party of the risk management methods used and the verification evidence to demonstrate compliance with § 450.101; and (5) a description of the results of the third party audit. The safety case approach recommended by APT included the use of a third party to review. The FAA sees potential complications, including liability considerations, when involving a third party in the licensing process. The FAA seeks comments on the potential usefulness and challenges associated with a safety case approach, whether or not a third party would be involved.

Additional Technical Justification and Rationale

The sections below provide detailed discussions of flight safety analyses and software safety. Additionally, this section discusses the numerous conforming changes the FAA proposes to the existing regulations in order to implement the proposed regulations.

A. Flight Safety Analyses

As discussed earlier, for purposes of this proposed rule, an FSA consists of a set of quantitative analyses used to determine flight commit criteria, flight abort rules, flight hazard areas, and other mitigation measures, and to verify compliance with the public safety criteria in proposed § 450.101. The FAA proposes 15 sections for flight safety analysis, as discussed below.

1. Scope and Applicability

Proposed § 450.113 establishes the portions of flight for which an operator would be required to perform and document an FSA, and would describe the analyses required for each type of operation. The portion of flight governed by the public safety criteria is central to the scope of the FSA.

The current scope of FSA regulations is laid out in §§ 417.201 and 417.107(b) for ELVs. Specifically, § 417.107(b)(1) currently requires that FSAs quantify the collective risks from lift-off through orbital insertion for orbital launches and from lift-off to final impact for suborbital launches. Unfortunately, § 417.107(b)(2) does not clearly specify the portion of flight for which an FSA must quantify the individual risks. In practice, the FAA has reconciled this vagueness by requiring the same scope for both collective and individual risks: From lift-off through orbital insertion for orbital launches and from lift-off to final impact for suborbital launches.

It is also unclear in current regulations what portions of flight the FSA needs to cover for RLVs. Section 431.35(b)(1) simply states that the collective public risk limit applies to each proposed reentry, but does not speak specifically to beginning and end of the period of flight that an FSA must analyze. Reentry means to return or attempt to return, purposefully, a reentry vehicle from earth orbit or from outer space to Earth.[188] Reentry includes activities conducted in Earth orbit or outer space to determine reentry readiness and that are critical to ensuring public health and safety and the safety of property during reentry flight. The definition also includes activities conducted on the ground after vehicle landing on Earth to ensure the vehicle does not pose a threat to public health and safety or the safety of property. In practice, the FAA has required public risk assessments to begin at the final health check prior to initiation of de-orbit burn and ending when flight stops, such as splashdown for a capsule.

Further, for both ELVs and RLVs, the current regulations do not expressly address the potential public safety hazards caused by the disposal of a launch vehicle stage or component from orbit. That is, §§ 417.107(b) and 431.35(b)(1), in addressing the public risk criteria, do not specifically address the disposal of launch vehicle stages or components. As discussed earlier, such vehicle disposals have become more common in recent years, reflecting the elevated priority put on orbital debris mitigation. The FAA explained in the 2016 final rule[189] that when the FAA requires that the quantitative risk analysis account for the planned impact of a first stage (or any stage) jettisoned prior to orbital insertion, it includes accounting for stage impacts regardless of whether the actual impact occurs before or after orbital insertion.

For reentry, proposed §§ 450.101(b) and 450.113(a)(4) would clarify and reduce the period FSAs must analyze when quantifying the public risks posed by reentry operations. The proposal would clarify that post-flight operations are not included in the safety analyses necessary to quantify the public risks posed by reentry operations. In § 401.5, the FAA proposes to include a definition for deorbit that clarifies that deorbit begins with the final command to commit the vehicle to a perigee below 70 nautical miles, approximately 130 km, and ends when all vehicle components come to rest on the Earth.

Proposed § 450.113 replaces § 417.201 to clarify the scope and applicability of FSAs. In proposed § 450.113(a)(1), an operator would be required to perform and document an FSA for orbital launch, from lift-off through orbital insertion,[190] including any component or stage landings. In proposed § 450.113(a)(2), an operator would be

[187] A–P–T Research, Inc. ''A New Path to Launch Licenses,'' Doc. No. CDSP–FL004–18–00402 (October 16, 2018).

[188] 14 CFR 401.5.

[189] *Changing the Collective Risk Limits for Launches and Reentries and Clarifying the Risk Limit Used to Establish Hazard Areas for Ships and Aircraft,* Final Rule. 81 FR 47017 (July 20, 2016).

[190] The FAA proposes orbital insertion to mean the point at which a vehicle achieves a minimum 70-nautical mile perigee based on a computation that accounts for drag. This adopts the definition of orbital insertion in RCC 321–17 Standard.

required to perform and document an FSA for suborbital launch, from lift-off through final impact. In proposed § 450.113(a)(3), the FAA clarifies the scope of disposal FSA that would be necessary to demonstrate compliance with the disposal safety criteria in proposed § 450.101(d). Specifically, for disposal, an FSA would span from the beginning of the deorbit burn through final impact.

Proposed § 450.113(a)(4) would require an operator to perform and document an FSA for reentry, from the beginning of the deorbit burn through landing. The proposal is consistent with current practice, but would clarify that post-landing activities are not included in the FSA.

Proposed § 450.113(a)(5) would explicitly address hybrid vehicles, which include air-launch rockets released from carrier aircraft such as the Pegasus rocket carried by a modified L–1011 airliner. The proposal would clarify that FSAs generally apply to hybrid vehicles, for all phases of flight unless the Administrator determines otherwise based on demonstrated reliability. Thus, the proposal would enable an operator of a hybrid vehicle with a high level of demonstrated reliability for the entire flight or for a phase of flight, to be exempt from performing some FSAs without seeking a waiver for the flight or phase of flight. Demonstrated reliability refers to statistically valid probability of failure estimates based on the outcomes of all previous flights of the vehicle or stage. For example, if an applicant seeks to operate a hybrid vehicle that features an air-launch rocket released from a carrier aircraft with minimal modification from the original design certified as a commercial transport aircraft, the FAA would find certain FSAs not applicable if empirical data sufficiently showed that the demonstrated reliability and estimated public risks of the system are equivalent to general aviation aircraft during a given phase of flight. Specifically, the FAA foresees that such an applicant could be exempt from some of the normal flight trajectory analysis requirements during the captive carry phases of flight if the applicant could demonstrate compliance with the public safety criteria in proposed § 450.101 without the benefit of some of the normal flight trajectory analysis outputs.

Proposed § 450.113(b) would identify the specific FSA actions applicable to all launch and reentry vehicles (in paragraph (b)(1)), a launch or reentry vehicle that relies on an FSS to comply with proposed § 450.101 (in paragraph (b)(2)), and launch of an unguided suborbital launch vehicle (in paragraph (b)(3)).

2. Flight Safety Analysis Methods

Proposed § 450.115 (Flight Safety Analysis Methods) would set the methodology requirements for FSAs. This section would replace the prescriptive requirements currently in § 417.203 and appendices A, B, C and I to part 417. Currently, § 417.203(a) requires that FSAs meet the requirements for methods of analysis contained in appendices A (section A417) and B (section B417) to part 417 for a launch vehicle flown with an FSS, and appendices B and C (section C417) for an unguided suborbital launch vehicle that uses a wind-weighting safety system. Specifically, section A417 provides prescriptive requirements on the FSA methodologies and products for a launch vehicle flown with an FSS. Section B417 provides prescriptive requirements on the FSA for hazard area analyses for ship and aircraft protection. Section C417 provides prescriptive requirements on the FSA methodologies and products for a launch vehicle flown with a wind weighting safety system.

Section 417.203(b) specifically lists the broad categories of approved methods of analysis while § 417.203(c) addresses requirements for alternate analysis methods. Section 417.203(c) currently requires that an alternate FSA method be based on accurate data and scientific principles, and is statistically valid. In practice, the FAA has evaluated the validity of an applicant's proposed methods by comparing the results to valid benchmarks such as data from mishaps, test, or validated high-fidelity methods. Section 417.203(e) requires that a launch operator demonstrate to the FAA compliance with the requirements of part 417, subpart C. In its application, a launch operator must include the analysis products required by parts 415, subpart F, 417, subpart A, and appendices A, B, C, and I, depending on whether the launch vehicle uses an FSS or a wind-weighting safety system.

Pursuant to § 431.35(c), the FSA for an RLV is required to account for any reasonably foreseeable hazardous event and safety-critical system failures during launch flight or reentry that could result in a casualty to the public. However, part 431 does not include requirements for the methods used to provide an FSA, thus providing no standards for evaluating an FSA's validity or level of fidelity. The part 431 license applications approved by the FAA included FSA methodologies and products comparable to those in 417 license applications.

Proposed § 450.115(a) sets the scope for FSA methods. This section would not materially change the scope of the FSA methods under current parts 417 and 431, which account for the risk to the public from hazards associated with normal and malfunctioning vehicle flight in accordance to § 417.205(a). However, proposed § 450.115(a) would add language currently not expressly provided in § 417.205(a) that would require an operator's FSA method to account for all reasonably foreseeable events and failure of safety-critical systems. This language is consistent with the current requirement in § 431.35(c) to account for any reasonably foreseeable hazardous event, and safety-critical system failures during launch flight or reentry that could result in a casualty to the public.

Proposed § 450.115(b) would establish the level of fidelity for FSAs. Specifically, it would require a level of fidelity sufficient to demonstrate that any risk to the public would satisfy the public risk criteria of proposed § 450.101, including the use of mitigations, accounting for all known sources of uncertainty, using a means of compliance accepted by the Administrator. It would also require that the analysis identify the dominant source of each type of public risk with a criterion in proposed § 450.101(a) or (b) in terms of phase of flight, source of hazard (such as toxic exposure, inert, or explosive debris), and vehicle response mode. Thus, this proposed rule would provide performance targets instead of the current part 417 approach that mandates a single level of fidelity equivalent to methods that comply with the extensive requirements given in the appendices of part 417.

The requirements in proposed § 450.115(b) would account for all known sources of uncertainty and identify the dominant sources of risk. The proposal would be consistent with the best practices of other regulatory agencies that use quantitative risk analyses as part of a risk management approach to ensure public safety. The Nuclear Regulatory Commission (NRC), which has a long history of performance-based regulations with quantitative risk analyses to ensure public safety, has a long-standing policy to ensure that the quantitative techniques used for regulatory decision-making take into account the potential uncertainties that exist so that an estimate can be made on the confidence level to be ascribed to the quantitative

results.[191] The NRC has also found that, through use of quantitative techniques, important uncertainties have been, and continue to be, brought into better focus and may even be reduced as compared to those that would remain with sole reliance on deterministic decision-making. The NRC found that direct lack of severe accident experience makes it necessary that proper attention be given not only to the range of uncertainty surrounding probabilistic estimates, but also to the phenomenology that most influences the uncertainties. In other words, the NRC found the need to identify the dominant sources of public risks and their uncertainties when using quantitative risk analyses to ensure public safety.[192]

The FAA would require that operators use a means of compliance accepted by the Administrator for FSA methods. The FAA plans to publish a draft version of that AC concurrently with this NPRM. An important aspect of that AC is the use of approaches generally consistent with the consensus U.S. Government standards on launch and reentry risk assessments (*e.g.,* RCC 321). The RCC 321 Standard (paragraph 2.4) recognizes that there is significant uncertainty in the computed risks of rocket launches and notes that confidence bounds of 90 percent describing the uncertainty in the computed risk can span multiple orders of magnitude. Thus, the consensus U.S. Government standards on launch and reentry risk assessments contains a policy statement that uncertainty cannot be ignored. The RCC 321 Supplement further concurred with several statements originally made by the NRC, including the following three: (1) The use of mean estimates does not, however, resolve the need to quantify (to the extent reasonable) and understand those important uncertainties involved in risk predictions; (2) sensitivity studies should be performed to determine those uncertainties most important to the probabilistic estimates; and (3) the results of sensitivity studies should be displayed showing, for example, the range of variation together with the underlying science or engineering assumptions that dominate this variation. Even so, the RCC went on to conclude that a formal uncertainty analysis may not be necessary under conditions where the best mean estimate of the public risk is low relative to the collective risk criterion.

For this rulemaking, the FAA considered adopting an approach to the treatment of uncertainty following RCC 321 Standard and Supplement. The FAA requests comment on whether this treatment of uncertainty is reasonable. Specifically, the FAA solicits input on the process whereby the uncertainty does not have to be considered if the computed risk is less than one-third of the primary aggregated collective risk criterion.[193] Current Air Force practice is to include implementation of measures to improve risk analyses to reduce the level of uncertainty when the predicted risks exceed 3×10^{-5} E_C. Examples of that could include refined input data or a higher-fidelity method for the risk computations.

Similarly, if the estimated risk level exceeds 3×10^{-5} E_C, the RCC 321 Standard states that the range should compute the uncertainty to ensure that a launch is not allowed that would violate the criterion based on best estimates that account for uncertainty. There are published examples of uncertainty analyses for launch risks that explicitly account for uncertainties associated with the input data (*e.g.,* the probability of failure associated with a given break-up state vector), and biases and uncertainties in key sub-models (*e.g.,* the sub-model used to compute the P_C given an impact with a given piece of debris on a specific structure type). However, the end effect of the RCC 321 Standard approach to uncertainty treatment is that a range or range user could continue operating under current practice, using their current tools without formal uncertainty quantification for missions with a collective risk no greater than 3×10^{-5} E_C. Under the RCC approach, only missions that pose collective risks above 3×10^{-5} E_C based on point estimates would be required to perform formal uncertainty quantification. The FAA requests comment on whether the current approaches to uncertainty treatment employed by the RCC or the Air Force are viable in the FAA's regulatory framework. The FAA further requests comments on any currently available approaches to address uncertainties in public risk assessments, including the approach identified in the draft means of compliance on uncertainty and level of fidelity in FSA methods.

Proposed § 450.115(b) would require that an operator account for all known sources of uncertainty in various FSAs. The FAA intends to ensure that FSA methods account for known sources of aleatory (random) uncertainties that are the result of inherently random processes. An example of aleatory uncertainty is the influence of prevailing weather conditions on the results of collective and individual risk analyses for launch or reentry. The true E_C is often highly influenced by the prevailing weather conditions during the proposed operation. The uncertainty in the true E_C due to weather conditions is substantial for a typical baseline risk analysis that accounts for the foreseeable weather conditions in a given month based upon historical data and assumes that an operation is equally feasible under any of those likely weather conditions given all the safety and mission assurance constraints. For example, most vehicles would not attempt to fly through certain wind conditions due to the potential for the vehicle to break up or veer off-course, leading to a violation of safety or mission assurance constraints. The uncertainty in the true E_C for a day-of-launch risk analysis is much smaller, but the uncertainty in any forecast or measured weather input data will still produce some uncertainty in the E_C due to measurement errors and variability in the weather measurements and forecasts. There are several other potentially important sources of aleatory uncertainty in an E_C analysis, and there are various valid approaches to account for these aleatory uncertainties. This proposed rule would require that aleatory uncertainties are accounted for, including known sources of randomness in critical input data. These would include normal and malfunction trajectories, weather conditions, population and sheltering characteristics (*e.g.,* between day and night), velocities induced during break-up, aerodynamic properties of the vehicle and debris, any yield from an explosive impact, and the amount of debris that burns up due to aero-thermal heating during re-entry.

Proposed § 450.115(c) would establish application requirements for methods of analysis. Specifically, the proposed rule would require that an applicant submit a description of the FSA methodology for each launch or reentry approved by the FAA, including identification of the

[191] *Nuclear Regulatory Commission, Nuclear Regulatory Safety Policy Goals.* 51 FR 28044 (August 21, 1986).

[192] The Department of the Interior (DOI), Bureau of Reclamation, uses risk criteria for achieving public protection in dam safety decision-making in a manner consistent with this proposed rule. Specifically, the DOI uses mean values calculated from Monte Carlo or similar analyses that include explicit treatment of input uncertainty.

[193] The choice of one-third was consistent with the recommendation in AFSPCMAN 91–710 Vol.1, 1 July 2004. Attachment 5 states that if risk to all individuals from a single hazard exceeds an E_C of 30×10^{-6}, a range user may have to take additional measures to protect personnel and resources. Examples include to fix, correct, or improve existing non-compliances, improve risk analyses to reduce the level of uncertainty, require a day-of-launch risk analysis, or establish disaster aversion criteria.

scientific principles and statistical methods used, and all assumptions and their justifications. However, if the FAA determines that the range's FSA methods meets FAA safety requirements, then the operator would not be required to provide the FAA with a description of the FSA methodology. Also, an applicant would be required to include the rationale for the level of fidelity, the evidence for validation and verification required by proposed § 450.101(g), the extent that the benchmark conditions are comparable to the foreseeable conditions of the intended operations, and the extent the analyses accounted for risk mitigations. The FAA intends for assumptions to be justified using logic, historical flight experience data, relevant test data, and the results from physics-based simulations.

3. Trajectory Analysis for Normal Flight

The FAA proposes a single regulation governing an FSA for normal trajectories, applicable to all launch and reentry vehicles, in proposed § 450.117 (Trajectory Analysis for Normal Flight). The provision would distinguish between variability in the intended trajectory and uncertainties due to random sources of dispersion such as winds and vehicle performance. It would also clarify application requirements.

All the FSAs depend on some form of analysis of the trajectory under normal conditions, otherwise known as a normal trajectory. That is, one must first understand a vehicle's trajectory when it performs as intended and under normal conditions before one can determine the effects of malfunctions along its flight path.

Current regulations for normal trajectory analyses are found in §§ 417.207 and 431.35(d) and appendix A to part 417. Section 417.207 sets the current trajectory analysis requirements for ELVs. Section 417.207(a)(1) requires an analysis that establishes the limits of a launch vehicle's normal flight, as defined by the normal trajectory and potential three-sigma trajectory dispersions about the normal trajectory for any time after lift-off. Although this requirement is generally clear, the uncertainties the analysis must consider could be clearer. For example, the current requirement does not distinguish between inherently random uncertainties that could cause the actual trajectory to differ from the nominal trajectory, and variability in the known conditions immediately prior to the initiation of the operation (*e.g.,* weather conditions at the time of the launch or the time into a launch window that the launch occurs for a rendezvous mission).

In terms of current RLV regulations in part 431, they describe flight trajectory analyses requirements in a single paragraph in § 431.35(d)(8). Specifically, the FAA requires that applicants provide flight trajectory analyses covering launch or ascent of the vehicle through orbital insertion and reentry or descent of the vehicle through landing, including its three-sigma dispersion. This regulation is silent as to the specific uncertainties for which the analysis must account. In practice, part 431 license applicants have provided normal trajectory data consistent with the part 417 regulations.

Proposed § 450.117 would retain the substantive normal trajectory analysis requirements currently in § 417.207 and the definitions of key terms such as ''normal flight'' and ''normal trajectory.'' Proposed § 450.117(a)(1) would require a trajectory analysis that establishes the limits of a vehicles normal flight. The proposal would retain the requirement in § 417.207(a)(1) to establish a nominal trajectory where the vehicle performs as designed without any deviation due to winds, propulsion performance, or mass properties but would add clarity about the sources of uncertainty that a trajectory analysis must account for by distinguishing between variability and random uncertainty.

Specifically, the proposal would expressly require a trajectory analysis to establish two separate sets of trajectories to characterize distinct sources of uncertainty, including variability and random uncertainty. One set of normal trajectories in § 450.117(a)(1)(ii) would characterize the uncertainty during normal flight due to random deviations from ideal conditions, such as wind conditions, vehicle mass, and performance characteristics. Another set of normal trajectories in § 450.117(a)(1)(i) would characterize how the intended trajectory could vary due to conditions known prior to initiation of flight. An example of variability is how the intended trajectory would change due to different times for lift-off within a launch window that lasts several minutes for a mission with an orbital rendezvous as the primary objective. Another example of variability is how the intended trajectory would change due to wind conditions. In such cases, the nominal trajectory represents the most likely lift-off time. An FSA must distinguish between variability and random uncertainty in the normal trajectory in order to demonstrate that the criteria in proposed § 450.101 would be satisfied at any time the operator intends to initiate launch or re-entry flight.

Section 450.117(a)(2) would require a fuel exhaustion trajectory that produces instantaneous impact points with the greatest range for any given time after liftoff for any stage that has the potential to impact the Earth and does not burn to propellant depletion before a programmed thrust termination. This is the same as current § 417.207(a)(2). The FAA is unaware of any challenges with the current regulation regarding a fuel exhaustion trajectory.

For vehicles with an FSS, proposed § 450.117(a)(3) would establish a new requirement for trajectory data or parameters that describe the limits of a useful mission. The FAA proposes in § 401.5 to define the ''limits of a useful mission'' as the trajectory data or other parameters that describes the limits of a mission that can attain the primary objective, including but not limited to flight azimuth limits. Thus, the proposal would require an operator to establish the limits of a useful mission based on the values of trajectory parameters necessary to attain the primary mission objective, including flight azimuth limits. Note that the azimuth limit data is currently required by the Air Force in Air Force Space Command Manual (AFSPCMAN) 91–710 Vol. 2. The limits of a useful mission are essential input data for the flight safety limits analysis, and for an evaluation of whether a vehicle should be allowed to pass through a gate, as discussed later in this preamble.

Proposed § 450.117(b) would require a final trajectory analysis to use a six-degree of freedom trajectory model, and proposed § 450.117(c) would require a trajectory analysis to account for all wind effects, including profiles of winds that are no less severe than the worst wind conditions under which flight might be attempted, and for uncertainty in the wind conditions. These are similar to § 417.207(b) and (c), respectively.

Proposed § 450.117(d) would provide application requirements for trajectory analyses that address the proposed methodology, input data, and output data. In paragraph (d)(1), an applicant would be required to describe the methodology used to characterize normal flight and the limits of a useful mission, including the scientific principles and statistical methods used, all assumptions and their justifications, the rationale for the level of fidelity of the methods, and the evidence for validation and verification that would be required by proposed § 450.101(g). In paragraph (d)(2), the FAA proposes to require that the applicant describe the

input data used in normal trajectory analyses and provides a list of the minimum input data an applicant must describe. In paragraph (d)(3), the FAA proposes to require that an applicant describe a representative normal trajectory analysis outputs (*e.g.,* position, velocity, and vacuum instantaneous impact point) for each second of flight for (1) the nominal trajectory, (2) a fuel exhaustion trajectory under otherwise nominal conditions, (3) a set of trajectories that characterize variability in the intended trajectory based on conditions known prior to initiation of flight, (4) a set of trajectories that characterize how the actual trajectory could differ from the intended trajectory due to random uncertainties, and (5) a set of trajectories that characterize the limits of a useful mission as described in proposed § 450.117(a). The proposed application requirements provide regulatory clarity regarding the normal trajectory characterization necessary to ensure compliance with proposed § 450.101.

Note that in this proposed section, and other proposed flight safety analysis application requirements, the FAA requires representative data. This allows the FAA to evaluate an applicant's methodologies. Representative data should be the best, meaning the most realistic, data available given the intended flight parameters.

The applicant would also be required to submit additional products that allow the FAA to conduct an independent analysis, if requested by the Administrator. This same application requirement would also be in proposed §§ 450.119 through 450.141. At times, the FAA conducts independent flight safety analyses which usually require additional information than is normally required of an applicant. Instead of attempting to list out what is needed for every independent analysis, which is usually case-specific, the FAA proposes to simply state that more information may be necessary. The FAA's conduct of an independent analysis is usually reserved for new vehicle concepts, new analysis methods, or proposals that involve unique public safety issues.

4. Trajectory Analysis for Malfunction Flight

Proposed § 450.119 (Trajectory Analysis for Malfunction Flight) would consolidate trajectory analysis requirements for all launch and reentry vehicles. In consolidating, the FAA would also update its requirements to reflect advancements in trajectory analysis capabilities and clarify application requirements. A malfunction trajectory analysis is necessary to determine how far a vehicle can deviate from its normal flight path in case of a malfunction. This analysis helps determine impact points in case of a malfunction and is therefore a vital input for the analyses needed to demonstrate compliance with risk criteria. The FAA's current regulations covering trajectory analyses in case of malfunction are in § 417.209 (Malfunction turn analysis), appendix A to part 417, and § 431.35(d)(8).

Current § 417.209 sets forth the trajectory analysis requirements in case of a malfunction applicable to ELVs. Section 417.209(a)(1) requires a trajectory analysis to establish the launch vehicle's turning capability in the event of a malfunction during flight using a set of turn curves. Appendix A to part 417 (section A417.9) also provides more detailed and prescriptive requirements for analyzing ''turn curves.'' Turn curve data offered a reasonable way to simulate failures that produce trajectory departures, particularly in response to thrust offsets when computational limitations made it impractical to perform six degrees of freedom (6–DOF) simulations of malfunction trajectories.

In the past, turn curves produced a reasonable way to model the classic cornus spiral behavior associated with a constant thrust offset or nozzle burn-through. Thus, § 417.209(b) requires a set of turn curves to establish the launch vehicle velocity vector turn angle from the nominal launch vehicle velocity vector, and to establish the vehicle velocity turn magnitude from the nominal velocity magnitude. There are two fundamental types of malfunction turn curves: (1) One that shows how the magnitude velocity changes during the turn; and (2) the other for the direction of the velocity. Given advancements in computational capabilities, the use of turn curves as mandated by the current regulations constitutes an outdated and unnecessarily simplified analysis technique. For instance, through current computational capabilities, particularly the prevalence of 6–DOF trajectory models, it is generally more efficient and more accurate for an applicant to provide sets of Monte Carlo trajectories that characterize a given type of malfunction, even for the thrust vector offsets and nozzle burn-through, than to provide turn curve data.

The current RLV regulations in part 431 do not explicitly address malfunction trajectory analyses. Section 431.35(d)(8) describes flight trajectory analysis requirements in a single paragraph. It requires that applicants provide flight trajectory analyses covering launch or ascent of the vehicle through orbital insertion and reentry or descent of the vehicle through landing, including its three-sigma dispersion. In practice, part 431 license applicants have provided malfunction trajectory analyses consistent with the part 417 regulations. However, the lack of clarity regarding the malfunction trajectory analysis requirements and ensuing discussions between the FAA and operators has resulted in inefficiencies and delays in the licensing process.

Proposed § 450.119 would consolidate all trajectory analysis requirements for a malfunctioning flight which would be applicable to any launch or reentry vehicle. Based on the noted advancements in computational capabilities that have rendered the current use of turn curves outdated and over simplistic, the FAA proposes to remove the § 417.209(b) requirements related to turn curves in favor of more modern Monte Carlo methods. Proposed § 450.119(b) would provide performance-based requirements regarding what a malfunction trajectory analysis must account for, including applicable times in flight and valid trajectory time intervals. Specifically, the proposal would require the analysis to account for (1) all trajectory times during the thrusting phases or when the lift vector is controlled during flight, (2) the duration starting when a malfunction begins to cause each flight deviation throughout the thrusting phases of flight, and (3) trajectory time intervals between malfunction turn start times that are sufficient to establish flight safety limits, if any, and individual risk contours that are smooth and continuous. The proposal would retain in § 450.119(b)(4) the performance-based requirement currently in § 417.209(a)(3) to establish the relative probability of occurrence of each malfunction turn of which the vehicle is capable. In proposed § 450.119(b)(5), the analysis would also have to account for the probability distribution of position and velocity of the vehicle when each malfunction will terminate due to vehicle breakup, along with the cause of termination and the state of the vehicle.[194] Finally, in proposed § 450.119(b)(6), the analysis would establish the vehicle's flight behavior from the time when a malfunction begins to cause a flight deviation until ground impact or predicted structural failure, with trajectory time intervals that are

[194] The proposed § 450.119(b)(5) requirement would be equivalent to the § 417.209(a)(4) through (9) requirements. Under § 417.209, the FAA prescribed the use of ''turn curves'' that were a particular way to compute the position and velocity at the end of a malfunction trajectory.

sufficient to establish individual risk contours that are smooth and continuous.

Finally, proposed § 450.119(c) would provide application requirements for malfunction trajectory analyses that address the proposed methodology, input data, and output data. An applicant would be required to describe the methodology used to characterize malfunction flight including the same elements required for the normal trajectory analyses. The FAA proposes to require that an applicant describe the input data used in malfunction trajectory analyses and provides a list of the minimum data an applicant must describe. The FAA also proposes to require that an applicant describe representative malfunction trajectory analysis outputs (*e.g.,* position, velocity, and vacuum instantaneous impact point) for each second of flight and for the probability of each trajectory that characterizes a type of malfunction flight. Finally, the FAA may also request additional products to conduct an independent analysis. These proposed application requirements are consistent or less burdensome than current requirements.

5. Debris Analysis

Proposed § 450.121 (Debris Analysis) would set the requirements for debris analysis by revising current requirements in § 417.211 (Debris analysis), accounting for part 431 practices not fully expressed in the regulatory language, consolidating requirements from § 417.107 (Flight Safety), and removing overly prescriptive and burdensome requirements from Appendix A to part 417.

Under § 417.211(a), a debris analysis must identify the inert, explosive, and other hazardous vehicle debris that results from normal and malfunctioning flight. Section 417.211(b) specifies that a debris analysis must account for various causes of a launch vehicle breakup. This analysis includes debris from any flight termination system activation, launch vehicle explosion, aerodynamic loads, inertial loads, atmospheric reentry heating, and impact of an intact vehicle. Section 417.211(c) asks for a list of debris fragments for each cause of breakup and any planned jettison of debris, launch vehicle components, or payload. Also, § 417.107(c) contains debris threshold requirements for debris analysis and appendix A to part 417 (section A417.11) provides detailed direction on the debris analysis constraints, debris models, and other debris analysis products.

Although part 431 does not expressly ask for a debris analysis, the FAA has deemed § 431.35(b) to require one, applying the same standards as those in part 417. However, this lack of regulatory specificity in part 431 has led to longer pre-application consultation periods as the FAA and operators worked to ascertain the applicable requirements.

Proposed § 450.121 would provide performance-based regulations regarding the level of fidelity required for key elements of a valid debris analysis. Proposed § 450.121(a) would include a debris analysis that characterizes the debris generated for each foreseeable vehicle response mode as a function of vehicle flight time, accounting for the effects of fuel burn and any configuration changes.

The FAA proposes to add the references to fuel burn and configuration changes that are absent from current part 417 because an operator's debris list will change over time with variations to the amount of available propellant and with the jettisoning of hardware.

Proposed § 450.121(b) would require that the debris analysis account for each foreseeable cause of vehicle breakup, including any breakup caused by an FSS activation or by impact of an intact vehicle. This proposal would include debris from a vehicle's jettisoned components and payloads because such debris could cause a casualty due to impact with an aircraft or waterborne vessel or could pose a toxic or fire hazard. This proposal is consistent with the ARC recommendation to develop a process for a debris catalogue. Foreseeable causes of vehicle breakup would include engine or motor explosion, or exceeding structural limits due to aerodynamic loads, inertial loads, or aerothermal heating.

Proposed § 450.121(c) is substantively the same as § 417.107(c). The section contains the debris thresholds requirements. It would adopt the references to inert, explosive, and other hazardous vehicle debris currently in § 417.211(a). The inert debris requirement would include all debris that could impact a human being with a mean expected kinetic energy at impact greater than or equal to 11 ft-lbs, or mean impact kinetic energy per unit area of 34 ft-lb/in^2. The required thresholds are well-established standards used by Federal launch ranges. In general, the 11 ft-lb requirement is the primary threshold for debris, whereas the 34 ft-lb/in^2 is for penetrating injuries. This paragraph also would clarify the need to consider the effects of all inert debris on aircraft or waterborne vessels, or those that pose a toxic or fire hazard. The debris analysis would also be required to identify any explosive debris.

Proposed § 450.121(d) would provide the debris analysis application requirements. This paragraph would inherit, in a less detailed and prescriptive manner, the requirements in appendix A to part 417, section A417.11. It would expressly identify the information and data needed by the FAA to evaluate compliance with the regulatory requirements. Proposed § 450.121(d) would describe the level of fidelity required for the products of a debris analysis including (1) a description of the debris analysis methodology, including input data, assumptions, and justifications for the assumptions; (2) a description of all vehicle breakup modes and the development of debris lists; and (3) all debris fragment lists necessary to quantitatively describe the physical, aerodynamic, and harmful characteristics of each debris fragment or fragment class. Finally, as discussed earlier, the applicant would be required to provide additional products as requested by the FAA to conduct an independent analysis to ensure that public safety criteria are satisfied.

6. Flight Safety Limits Analysis

Proposed § 450.123 would set the requirements to identify uncontrolled areas and establish flight safety limits that define when an operator must initiate flight abort to (1) ensure compliance with the public safety criteria of proposed § 450.101 and (2) prevent debris capable of causing a casualty from impacting in uncontrolled areas if the vehicle is outside the limits of a useful mission.

Current § 417.213(a) requires that a flight safety limits analysis identify the location of populated or other protected areas and establish flight safety limits to define when an FSS must terminate a launch vehicle's flight to prevent hazardous impacts from reaching any protected area and ensure that the public risk criteria of § 417.107(b) are satisfied. Section 417.3 currently defines a flight safety limit as criteria to ensure a set of impact limit lines established for the flight of a launch vehicle flown with an FSS bound the area where debris with a ballistic coefficient of 3 psf or more is allowed to impact when an FSS functions. Thus, § 417.213(a) and the definition of flight safety limit require that any populated area be protected by flight safety limits from where the FSS must be activated. This requirement is not consistent with operations on Federal launch ranges

that allow potential debris impact in populated areas inside the impact limit lines, as long as the individual and collective public risks remain within acceptable limits.

The requirements in § 417.213(b) are specific about potential contributors to the vehicle and debris dispersions for which the flight safety limits analysis must account including time delays, all wind effects, velocity imparted to vehicle fragments by breakup, all lift and drag forces on the malfunctioning vehicle and falling debris, all launch vehicle guidance and performance errors, all launch vehicle malfunction turn capabilities, and any uncertainty due to map errors and launch vehicle tracking errors.

Section 417.213(d) requires that the analysis establish designated impact limit lines to bound the area where debris with a ballistic coefficient of 3 psf is allowed to impact, assuming the FSS functions properly. In contrast, part 431 does not contain any express requirements for a flight safety limits analysis to set flight safety limits. That being said, part 431 license applicants have performed a flight safety limits analysis mirroring part 417 requirements in cases where an FSS was employed to satisfy the public risk criteria in § 431.35(b).

The FAA proposes to move the definition of ''flight safety limit'' from current § 417.3 to § 401.5 and update the definition to mean criteria to ensure that public safety is protected from the flight of a vehicle when an FSS functions properly. Thus, the proposal would remove any ballistic coefficient threshold from the definition of a flight safety limit. As previously discussed, the Air Force has permanently waived its previous requirement that embedded a specific ballistic coefficient threshold into the flight safety limits, and the FAA has also waived the corresponding requirement in § 417.213(d).[195] When the FAA adopted the 3 psf ballistics coefficient standard (in 2006), the FAA recognized that ballistic coefficient is not well correlated with the probability of a casualty producing impact.[196] Simply put, ballistic coefficient is an imperfect surrogate that was adopted based on past practice when computers were less capable than today.

In § 401.5, the proposal would also replace the term ''protected area'' with ''uncontrolled area,'' defined as an area of land not controlled by a launch or reentry operator, a launch or reentry site operator, an adjacent site operator, or other entity by agreement. This change reflects the fact that all members of the public, even those in areas of land controlled by a launch operator, are protected to the extent that collective and individual public risk limits apply everywhere. Specifically, proposed § 450.123(a) would require protection of uncontrolled areas by flight safety limits and ensure compliance with the public safety criteria of proposed § 450.101, while controlled areas would be required to meet only the collective and individual risk requirements (also in accordance with proposed § 450.101).

The FAA intends to assess the need for flight safety limits to protect environmentally-sensitive areas in the environmental review process of proposed § 450.47. The FAA anticipates that not all environmentally-sensitive areas will need this protection. For example, current practice for launches from the Western Range protects a National Marine Sanctuary in the Pacific Ocean against planned impacts of jettisoned items, but not against debris from a flight abort.

Proposed § 450.123(a) would require an FSA to identify the location of uncontrolled areas and establish flight safety limits that would define when an operator must initiate flight abort to prevent debris capable of causing a casualty from impacting in uncontrolled areas if the vehicle is outside the limits of a useful mission, and to ensure compliance with the public safety criteria of proposed § 450.101. Given flight safety limits are only required to protect people in uncontrolled areas and not people in controlled areas, the proposal would reconcile the current inconsistency between the part 417 requirements versus the current practice at some Federal launch ranges that allows the public's exposure to debris hazards as long as the collective and individual risk criteria are met.

Proposed § 450.123(b) would require a flight safety limits analysis to identify flight safety limits for use in establishing flight abort rules. The flight safety limits would be required to account for temporal and geometric extents on the Earth's surface of any vehicle hazards resulting from any planned or unplanned event for all times during flight, and account for potential contributions to the debris impact dispersions. This is the same as § 417.213(b). Proposed § 450.123(b)(3) would add a requirement to design flight safety limits to avoid flight abort under conditions that result in increased collective risk to people in uncontrolled areas, compared to continued flight. The proposed requirement is equivalent to the U.S. Government consensus standard that a conditional risk management process should be implemented to ensure that mission rules do not induce unacceptable consequences when they are implemented.[197] In the flight safety context, a flight abort is a good example of a safety intervention intended to mitigate public risks, but that typically induces a conditional risk (*e.g.,* a consequence associated with the debris event triggered by the flight abort). A flight safety limits analysis would ideally minimize all foreseeable consequences, not just those to people on the ground or to the extent necessary to meet the public safety criteria. For example, placing flight safety limits in areas where flight abort might place debris on a busy shipping lane or air corridor is not an ideal solution when other locations for the limits could meet the public safety criteria and consequence criteria, and still provide space for the vehicle to fly a useful mission. Also, as a malfunctioning vehicle's debris footprint migrates towards a populated area, the consequence to people on the ground from a flight abort will increase from a low number and possibly reach the proposed consequence limit. The ideal location for a flight safety limit on such trajectory is not at the last location where an abort would still result in meeting the consequence criteria, which would presumably result in a consequence close to the limit, but at a location that minimizes the consequence. This proposed approach could result in flight safety limits that provide debris containment, or nearly so, while also allowing normal flight and flight within the limits of a useful mission without triggering an abort. In summary, the design of the flight safety limits and the associated flight safety rules would be required to avoid an increase in risk induced by a flight abort, compared to inaction or action at a different time. This is relevant to areas where debris containment is not possible, as discussed in greater length in the next section on proposed § 450.125.

Proposed § 450.123(c) would require the flight safety analysis to include a gate analysis for an orbital launch, or any launch or reentry where one or more trajectories that represents a useful mission intersects a flight safety limit that provides containment of debris capable of causing a casualty. This is also discussed in more detail in the next section on gate analysis.

Proposed § 450.123(d) would provide flexibility to allow the computation of

[195] 81 FR 1470 (January 12, 2016).

[196] *Licensing and Safety Requirements for Launch,* NPRM. 67 FR 49464 (October 28, 2002).

[197] RCC 321–10 at p. 2–7.

flight safety limits in real-time in lieu of computing flight safety limits preflight. This alternative would reduce the number of assumptions used in the flight safety limits analysis and allow for a computation that uses the best available data on the vehicle state. The proposal would allow the computation of flight safety limits in real-time to be performed on the ground or onboard the vehicle.

The FAA proposes to remove the requirement for a straight-up time analysis currently in § 417.215. A straight-up time analysis establishes when to terminate the flight of a vehicle that fails to pitch over, and thus flies straight up, to achieve debris containment. The straight-up time is not the only method of limiting the risks and consequences to the launch area in the case of a vehicle that flies a straight-up trajectory. Although the express provision is being removed in the proposed rule, the new performance-based analysis permitted under § 450.213 would allow the straight-up time approach to control the hazards from a straight-up flight, but its use would not be required.

Proposed § 450.123(e) lays out the application requirements for flight safety limits analyses. The FAA would require an applicant to submit: (1) A description of how each flight safety limit will be computed; (2) representative flight safety limits and associated parameters; (3) an indication of which flight abort rule from proposed § 450.165(c) is used in conjunction with each example flight safety limit; (4) a graphic depiction or series of depictions of representative flight safety limits, the launch or landing point, all uncontrolled area boundaries, and vacuum instantaneous impact point traces for the nominal trajectory, extents of normal flight, and limits of a useful mission trajectories; (5) if the requirement for flight abort is computed in real-time in lieu of precomputing flight safety limits, a description of how the real-time flight abort requirement is computed including references to public safety criteria of § 450.101; and (6) additional products requested by the FAA for an independent analysis when necessary to demonstrate compliance with risk criteria. The proposed application requirements are consistent with current practice under parts 417 and 431.

7. Gate Analysis

The FAA proposes § 450.125 to make regulations governing gate analyses more performance-based, flexible, and clear. This change would include revising the definition of ''gate'' and, as discussed earlier, adding a definition of the ''limits of a useful mission.'' The proposal would also add an option to relax flight safety criteria without using a gate.

Current § 417.3 defines a ''gate'' as the portion of a flight safety limit boundary through which the tracking icon of a launch vehicle flown with an FSS may pass without flight termination. As discussed earlier, a gate is an opening in a flight safety limit through which a vehicle may fly, provided the vehicle meets certain pre-defined conditions such that the vehicle performance indicates an ability to continue safe flight. If the vehicle fails to meet the required conditions to pass a gate, then flight abort would occur at the flight safety limit. In other words, the gate would be closed.

The FAA has requirements for an overflight gate analysis in § 417.217 and appendix A, section A417.17, and for a hold-and-resume gate analysis in § 417.218. An overflight gate analysis determines whether a vehicle can overfly populated areas. This analysis requires a launch operator determine why it is safe to allow flight through a flight safety limit—the limit that protects populated or protected areas—without terminating a flight. This analysis accounts for the fact that it is potentially more dangerous to populated or protected areas to destroy a malfunctioning vehicle during certain portions of a launch than not to destroy it. In some circumstances, a destroyed vehicle may disperse debris over a wider area affecting more people than if the vehicle were to impact intact.

The primary purpose of flight safety limits and gates is to establish safe locations and conditions to abort the flight prior to the vehicle entering a region or condition where it may endanger populated or other protected areas if flight were to continue. From an operator's perspective, a gate should allow the vehicle to fly through a flight safety limit when the trajectory corresponds to a useful mission.[198] Otherwise, a flight abort would be required for every flight that intersects with a flight safety limit even if the mission can still have a successful outcome. The optimal use of flight safety limits and gates would be to prevent vehicles that cannot achieve a useful mission from continuing flight, even when the flight is along a trajectory that crosses a gate.

The current gate regulations imply that gates are the only option when debris containment is not possible along a trajectory that represents a useful mission, whether it is normal or outside of the normal trajectory envelope. This requirement does not reflect current practice at the Federal launch ranges. Federal launch ranges sometimes relax flight safety limits to allow continued flight for these trajectories without the use of a gate, as long as the operations satisfies the collective risk criterion. Also, some Federal launch ranges do not currently require explicit identification of the conditional risk posed by a vehicle that flies on a trajectory within the normal trajectory envelope or the limits of a useful mission. The preflight risk due to such a trajectory is often small because the vehicle is not likely to deviate far from nominal. However, a gate or relaxed flight safety limit to allow flight on such a trajectory implies that the risk must be acceptable given that the vehicle does fly on such a trajectory. Such a failure to identify the conditional risk associated with such a trajectory as part of the gate analysis is inconsistent with the U.S. Government consensus standard (RCC 321–17 paragraph 2.3.6) that a conditional risk management process should be implemented to ensure that mission rules do not induce unacceptable levels of risk when they are implemented.

Although part 431 has no requirements related to gate analysis, the one orbital RLV operation licensed to date employed an FSS and performed a gate analysis.

The FAA's proposed § 450.125 would establish a single set of performance-based gate analysis requirements applicable to all launch and reentry vehicles. The gate analysis requirements in §§ 417.217 and 417.218 would be combined. Proposed § 450.125 would remove prescriptive requirements on the types of gates, standardize the requirements for establishing a gate, and open the possibility of relaxing flight safety limits. The FAA believes an operator should have the freedom to select risk mitigation methods that will present the best safety posture rather than prescribing certain strategies that may not be the best for all scenarios and vehicles. The FAA also proposes to revise the existing definition of ''gate'' in § 401.5 to replace the term ''flight termination'' with ''flight abort'' and to add language to reflect that the flight must remain within specified parameters to avoid flight abort.

Proposed § 450.125(a) would require a gate analysis for an orbital launch, or

[198] As discussed earlier in this preamble, the FAA proposes in § 401.5 to define the ''limits of a useful mission'' as the trajectory data or other parameters that describes the limits of a mission that can attain the primary objective, including but not limited to flight azimuth limits.

any launch or reentry where one or more trajectories that represents a useful mission intersects a flight safety limit that provides containment of debris capable of causing a casualty.

Proposed § 450.125(b) would set the gate analysis requirements. The FAA would require an analysis to establish a relaxation of flight safety limits to allow continued flight or a gate where a decision will be made to abort the launch or reentry, or allow continued flight. If a gate is established, the analysis should establish a measure of performance at the gate that would enable the flight abort crew or autonomous FSS to determine whether the vehicle is able to complete a useful mission, and abort the flight if it is not. Further, the analysis should establish accompanying flight abort rules. Finally, for an orbital launch, the analysis should establish a gate at the last opportunity to determine whether the vehicle's flight is in compliance with the flight abort rules and can make a useful mission, and abort the flight if not. This last requirement would achieve the goal of assuring that only missions that can be useful are allowed to proceed to orbit, thereby limiting the potential for space debris. In addition, when the vehicle performance does not demonstrate an ability to reach a minimum safe orbit (without an imminent random reentry), meaning it cannot pass the useful mission requirement, the regulation would require that flight abort occur.

In proposed § 450.125(c), the FAA would require the extents of any gate or relaxation of the flight safety limits to be based on normal trajectories, trajectories that may achieve a useful mission, collective risk, and consequence criteria. In proposed § 450.125(c)(1), the FAA proposes to require a gate or relaxation of flight safety limits anywhere a flight safety limit intersects with a normal trajectory if that trajectory would meet the individual and collective risk criteria of proposed § 450.101(a)(1) and (2) or (b)(1) and (2) when treated like a nominal trajectory with normal trajectory dispersions.[199] Requiring all normal trajectories to be treated like a nominal trajectory with dispersions as input to a conditional risk analysis (given a sample normal trajectory) for the gate analysis would resolve the issue of an incomplete characterization of the conditional risk of a vehicle that flies through what was a flight safety limit while within the normal trajectory envelope.

Another requirement of the proposed gate analysis would be that the predicted average consequence from flight abort resulting from any reasonably foreseeable vehicle response mode, in any one-second period of flight, using any modified flight safety limits must not exceed 1×10^{-2} CE_C. The goal of this requirement is to ensure that flight safety limits do not create an unacceptable consequence when used, since debris containment is no longer provided. A gate that does not have flight safety limits after the gate would not need to meet this consequence criterion since it would be placed at the same location as flight safety limits that do provide debris containment. Under the proposal, any intersections of flight safety limits with normal trajectories would result in flight safety limits that are relaxed enough to allow passage, or an open gate in the flight safety limit as long as there is enough data available to confirm that the vehicle is healthy (*i.e.,* appears capable of reaching a minimum safe perigee). Flight on normal trajectories must still meet the public safety criteria in proposed § 450.101, so this practice would ensure acceptable risks and use the best available data to confirm that a vehicle is unlikely to fail before being allowed to fly through a gate, if one is present. Whether flight safety limits would be relaxed enough to let a vehicle fly through that area, or be gated, is optional. A gate is preferred if it would reduce risk, given that there is sufficient information available to make a decision on whether the vehicle is sufficiently healthy to pass. This practice would align with the Federal launch range's current practice and meet the intent of the current requirement in § 417.107(a)(2).

In proposed § 450.125(c)(2), trajectories that are outside of normal flight but within the limits of a useful mission would be evaluated as potential normal trajectories. Proposed § 450.125(c)(2) would allow flight safety limits to be gated or relaxed where they intersect with any trajectory within the limits of a useful mission, if the trajectory would meet the individual and collective risk criteria of proposed § 450.101(a)(1) and (2) or (b)(1) and (2), assuming that the trajectory flown would be treated like a nominal trajectory with normal trajectory dispersions. The predicted average consequence from flight abort resulting from a failure in any one-second period of flight, using any modified flight safety limits, would be required to not exceed 1×10^{-2} CE_C. The philosophy behind proposed § 450.125(c)(2) is to allow a non-normal flight to continue as long as the mission does not pose an unacceptable conditional risk given the present trajectory. A good example of missions that fall into this category are missions that lift-off on an incorrect flight azimuth, usually due to a software input error, such as the Ariane 5 failure on January 25, 2018, during its 97th mission (VA241). Apart from the programming error, these vehicles may be healthy and are not expected to fail more frequently than a flight without the programming error, so these flights should be allowed to continue if they meet the individual and collective risk criteria on the present azimuth (unless the risk from planned debris impacts was unacceptable on the present flight azimuth). If they do not, such flights would be required to implement an abort. This proposal is consistent with the ARC's recommendation to expand part 431 to include flight abort rules that apply when the vehicle is performing outside of its profile and is unable to reach a useful orbit or survive, and needs to be terminated prior to overflight of a populated area.

Proposed § 450.125(d) would establish the application requirements for gate analyses. Specifically, the proposal would require an applicant to submit a description of the methodology used to establish each gate or relaxation of a flight safety limit; a description of the measure of performance used to determine whether a vehicle will be allowed to cross a gate without flight abort, the acceptable ranges of the measure of performance, and how these ranges were determined; a graphic depiction showing representative flight safety limits, any protected uncontrolled area overflight regions, and instantaneous impact point traces for the nominal trajectory, extents of normal flight, and limits of a useful mission trajectories; and any additional products requested by the FAA to conduct an independent analysis when necessary to ensure that public risk criteria are not exceeded. The proposed application requirements are consistent with current practice under parts 417 and 431.

8. Data Loss Flight Time and Planned Safe Flight State Analyses

The FAA proposes to consolidate and update data loss flight times and planned safe flight states requirements in proposed § 450.127 (Data Loss Flight Time and Planned Safe Flight State Analyses).

Data loss flight time analyses are used to establish when an operator must abort a flight following the loss of vehicle tracking information. In § 417.3,

[199] The FAA would retain the definitions of ''normal flight'' and ''normal trajectory'' currently found in § 417.3.

the FAA currently defines ''data loss flight time'' as the shortest elapsed thrusting time during which a launch vehicle flown with an FSS can move from its normal trajectory to a condition where it is possible for the launch vehicle to endanger the public. This definition is unclear as to what constitutes a condition where it is possible for the launch vehicle to endanger the public. Given the overall approach to impact limit lines in § 417.213(d) and the treatment of data loss flight times in appendix A to part 417, section A417.19, the FAA has interpreted the definition to mean any impact on a protected area with debris greater than 3 psf ballistic coefficient.

With this proposal, the FAA would move the definition of ''data loss flight time'' from current § 417.3 to § 401.5 and update the definition to mean the shortest elapsed thrusting or gliding time during which a vehicle flown with an FSS can move from its trajectory to a condition where it is possible for the vehicle to violate a flight safety limit. An important change in the definition would be the replacement of ''move from its *normal* trajectory'' with ''move from its trajectory.'' Computing data loss flight times initialized using normal trajectories or nominal trajectories would both be acceptable means of compliance with the proposed regulation, since using the former should be more conservative. This resolves the issue of varying practices at different ranges and provides additional flexibility.

In § 417.219(a), the FAA requires a launch operator to establish data loss flight times and a planned safe flight state. In § 417.219(b), the FAA requires that thrust be considered as a means of moving a vehicle towards a protected area, but some vehicles can also glide a significant distance using lift. Further, § 417.219(b) requires the data loss flight time to be relative to reaching protected areas, not flight safety limits. The requirements in § 417.219(c) also include a method of establishing the planned safe flight state that includes the subjective phrase ''the absence of a flight safety system would not significantly increase the accumulated risk from debris impacts.'' Data loss times are currently computed in different ways at Federal launch ranges, with some initializing the computation from the nominal trajectory and some from trajectories within the normal trajectory envelope, sometimes referred to as ''dispersed'' trajectories.

Part 431 has no requirements related to analysis to establish data loss flight times or planned safe flight state. However, the one orbital RLV operation licensed to date employed an FSS and established data loss flight times.

The FAA's proposed § 450.127(a) would require an FSA to establish data loss flight times and a planned safe flight state for each flight to establish each flight abort rule that applies when vehicle tracking data is not available for use by the flight abort crew or autonomous FSS. Substantively, this proposal is consistent with the current rule in § 417.219(a). However, the FAA's proposal would update language to account for autonomous FSS and the use of the term flight abort in place of flight termination.

Proposed § 450.127(b)(1) would retain the data loss flight time analysis requirements consistent with § 417.219, but with the addition of gliding flight as a means of moving a vehicle towards flight safety limits (in lieu of protected areas in accordance with § 417.219). The proposal would replace the subjective method of establishing the safe flight state with a more straightforward method of analyzing when the vehicle's state vector reaches a state where the vehicle is no longer required to have a flight safety system. This is to avoid aborting a flight due to loss of track data during a phase of flight in which track data is not required to ensure safe flight. Thus, the proposal would encourage operators to avoid a flight abort, which often correlates with creating debris, due to loss of track data when in an area where flight abort is not required to meet the regulations.

Proposed § 450.127(b)(2) would require data loss flight times to account for forces that may stop the vehicle before reaching a flight safety limit, such as aerodynamic forces that exceed the structural limits of the vehicle. When more conservative methods are used, such as assuming an instantaneous turn towards the nearest flight safety limit, data loss flight times can be underestimated in that a vehicle could not physically perform the turn without breaking up. Data loss flight times that are unrealistically low create the risk of an unnecessary abort (and thus, an unnecessary debris event) if track is lost, since track may return and allow flight to continue if the data loss flight times are greater.

Proposed § 450.127(b)(3) would allow the computation of data loss flight times in real-time in lieu of only computations made preflight. This proposal would allow for a computation using the last-known state vector of the vehicle before track was lost. Proposed § 450.127(b)(3) would allow the computation of data loss flight times to be performed on the ground or onboard the vehicle, depending on whether a traditional command destruct or autonomous flight safety system is used.

In proposed § 450.127(c), the requirements regarding the planned safe flight state would be consistent with those currently in § 417.219(c), only generalized to apply to reentry as well as launch. Proposed § 450.127(c)(1) would update the § 417.219(c)(1) requirement using new terminology without any change to the meaning.

Proposed § 450.127(d) lays out the application requirements for data loss flight time and planned safe flight state analyses. Specifically, the proposal would require an applicant to submit a description of the methodology used to determine data loss flight times; tabular data describing the data loss flight times from a representative mission; the safe flight state and methodology used to determine it; and any additional products requested by the FAA to conduct an independent analysis.

9. Time Delay Analysis

For ELVs, § 417.221(a) requires a time delay analysis that establishes the mean elapsed time between the violation of a flight termination rule and the time when the flight safety system is capable of terminating flight for use in establishing flight safety limits. Section 417.221(b) requires the analysis to determine a time delay distribution that accounts for the variance of all time delays for each potential failure scenario, a flight safety official's decision and reaction time, and flight termination hardware and software delays which includes all delays inherent in tracking systems, data processing systems, display systems, command control systems, and flight termination systems.

The FAA has also required time delay analyses for RLVs under the current regulatory scheme. Specifically, § 431.39(a) requires an RLV license applicant to submit contingency abort plans, if any, that ensure safe conduct of mission operations during nominal and non-nominal vehicle flight. In practice, a time delay analysis has been necessary to ensure safe conduct of an RLV that uses flight abort.

The FAA proposes to streamline the regulations governing the analysis of time delay in proposed § 450.129 (Time Delay Analysis). Proposed § 450.129(a) would use language identical to § 417.221(a), except that the term ''terminating'' would be replaced with the term ''aborting.'' The proposal would replace the list of time delay contributions prescribed in § 417.221(b) with a performance-based requirement in proposed § 450.129(a), that the time delay analysis would be required to

determine a time delay distribution that accounts for all foreseeable sources of delay.

Proposed § 450.129(b) would list application requirements. Specifically, the proposal would require an applicant to submit a description of the methodology used in the time delay analysis, a tabular listing of each time delay source and the total delay, with uncertainty, and any additional products the FAA would request to conduct an independent analysis.

10. Probability of Failure

Proposed § 450.131 (Probability of Failure Analysis) would cover probability of failure (POF) analysis requirements for all launch and reentry vehicles. The proposal would also make application requirements clearer and implement performance-based requirements to address allocation to flight times and vehicle response modes. The proposed POF performance requirements would allow an operator to employ alternative, potentially innovative methodologies so long as the results satisfy proposed requirements such as valid input data.

Current regulations covering POF analysis requirements for ELVs are found in § 417.224. Part 431 does not have requirements for a POF analysis. Even so, a POF analysis is necessary to demonstrate compliance with the public risk criteria set for RLV operations in § 431.35(b).

Section 417.224(a) requires that POF analyses use accurate data, scientific principles, and a method that is statistically or probabilistically valid. For vehicles with fewer than two flights, the POF must account for the outcome of all previous launches of vehicles developed and launched in similar circumstances. If a vehicle has more than two flights, the POF analysis must account for the outcomes of all previous flights of the vehicle in a statistically valid manner. Section 417.224(a) does not address the use of data on partial failures and anomalies, which is a shortcoming the FAA seeks to correct. Section 417.224(b) defines failure to mean when a launch vehicle does not complete any phase of normal flight, or when any anomalous condition exhibits the potential for a stage or its debris to impact the Earth or reenter the atmosphere during the mission, or any future mission, of similar launch vehicle capability. The paragraph makes clear a launch incident or accident also constitutes a failure. Finally, Section 417.224(c) explains that previous flights begin when the launch vehicle normally or inadvertently lifts off from a launch platform and that liftoff occurs with any motion of the launch vehicle with respect to the launch platform.

Although the § 417.224 definitions have generally served the FAA and the industry well, § 417.224 lacks requirements to address allocation to flight times and vehicle response modes (VRMs), even though these allocations are necessary to determine the public risks posed by various VRMs at various times in flight. Given POF is a primary factor in any risk computation, it is impossible for an applicant to demonstrate compliance with the quantitative public risk criteria without an analysis to determine the probability of any reasonably foreseeable outcome, such as an on-trajectory loss of thrust or a malfunction turn ending in aerodynamic break-up.

The FAA would retain the substantive § 417.224 POF analysis requirements in proposed § 450.131, including the definitions of key terms such as ''failure'' and ''previous flight''. However, the proposal would apply to all launch and reentry vehicles. In addition, it would clarify the data a POF analysis must use to establish a valid allocation to flight times and vehicle response modes.

Proposed § 450.131(a) would retain the same substantive requirements regarding the an operator's estimation of the POF for vehicles with fewer than two flights. However, for vehicles with two or more previous flights, the proposal would change the § 417.224(a) provision by requiring that the outcomes of all previous flights of the vehicle or vehicle stage account for data on partial failures and anomalies including Class 3 and Class 4 mishaps. Thus, the proposal would require an analysis to account for partial failures and anomalies. These changes should improve the credibility of POF analyses by giving due credit to stages that succeed even though a subsequent stage fails. For example, consider a vehicle launched two times, with a failure during the second stage on the first launch and no failures during the second launch. For the third launch, the proposal would allow a probability of failure analysis to account for the fact that the first stage flew twice without a failure, while the second stage flew twice with one failure.

Proposed § 450.131(b) would retain essentially the same definition of ''failure'' used in § 417.224(b), with changes using the proposed mishap terminology (Class 1 or Class 2) and to cover other vehicles beyond ELVs.

Proposed § 450.131(c) would retain essentially the same definition of ''previous flight'' for FSA purposes, with changes intended to encompass all launch and reentry vehicles, including cases where an operator uses a carrier aircraft. Thus, ''previous flight'' for the purposes of an FSA would cover the flight of a launch vehicle beginning when the vehicle normally or inadvertently lifts off from a launch platform. Liftoff would still occur with any motion of the launch vehicle with respect to the launch platform. The FAA would clarify that this would include a carrier aircraft as a launch platform, and would include any intentional or unintentional separation from the launch platform. In terms of a reentry vehicle, the flight of a reentry vehicle or deorbiting upper stage would begin when a vehicle attempts to initiate a deorbit.

Proposed § 450.131(d), titled ''Allocation,'' would establish performance requirements to address POF allocation to flight times and VRMs. The proposal would require that a vehicle POF be distributed across flight times and vehicle response modes consistent with the data available from all previous flights of vehicles developed and launched or reentered in similar circumstances; and data from previous flights of vehicles, stages, or components developed and launched or reentered by the subject vehicle developer or operator. Such data may include previous experience involving similar vehicle, stage, or component design characteristics; development and integration processes, including the extent of integrated system testing; and level of experience of the vehicle operation and development team members. These requirements were not in § 417.224 or part 431. In this context, phases of flight would be defined by planned events affecting the vehicle configuration and its failure rate, such as ignition, first stage flight, stage separation, second stage ignition, second stage flight, payload fairing separation, etc. This proposal would require what is already necessary and thus done in current practice.

In proposed § 450.131(e), the FAA would require that a POF allocation account for significant differences in the observed failure rate and the conditional failure rate. The conditional failure rate represents the failure rate conditional on the vehicle or subsystem having survived, without a failure as defined earlier, to a given time in flight. The observed failure rate is the product of the conditional failure rate and the reliability function, which is commonly defined as the probability that the vehicle or subsystem has not failed prior to a given time in flight. For high reliability systems where the reliability function is close to one (by definition),

the observed failure rate can be approximated as the conditional failure rate. If the overall vehicle or stage POF is below 10 percent (over the entire period of time corresponding to a phase of flight), then this simplified approach produces a relative error less than approximately 0.5 percent, which is generally not considered a significant difference. For lower reliability systems, this approximation does produce a significant difference between the observed failure rate and the conditional failure rate. Here again, the proposal would clarify what is already necessary and thus done in current practice.

Proposed § 450.131(e) would also require that a POF analysis use a constant conditional failure rate for each phase of flight, unless there is clear and convincing evidence of a different conditional failure rate for a particular vehicle, stage, or phase of flight. Thus, the proposal would require a POF analysis to assume that the conditional failure rate can be represented as a piece-wise constant function of time for each phase of flight, absent clear and convincing evidence to the contrary. The points that define transitions to a potentially different conditional failure rate must include staging events or other vehicle configuration changes, such as ignition of other engines or rocket motors. In some cases, the FAA anticipates that there will be sufficient evidence to justify a different failure rate, for example during a start-up or shut-down/burnout transient for a rocket motor compared to steady state operation of a stage, engine, or motor.

Proposed § 450.131(f) would lay out the FAA's application requirements for POF analyses that address the proposed methodology, assumptions and justification, input data, and output data. An applicant would also be required to provide a complete set of tabular data and graphs of the predicted failure rate and cumulative failure probability for each foreseeable VRM. The proposed requirements are consistent with current practice to the extent that any valid FSA must include the probability of failure assigned to each VRM as a function of time into flight.

11. Flight Hazard Areas

The FAA proposes to streamline its regulations on flight hazard area in proposed § 450.133, applicable to all launch and reentry vehicles. The FAA would codify its working definition of ''flight hazard area'' to mean any region of land, sea, or air that must be surveyed, publicized, controlled, or evacuated in order to protect the public health and safety and safety of property. An FSA would include a flight hazard area analysis to identify regions of land, sea, or air where an operation poses a potential hazard to the public. The proposal would reduce the size of the regions of land, sea, and air requiring hazard warnings from normal flight events and would reduce the size of regions requiring surveillance prior to initiating a commercial space transportation operation. These changes would be consistent with practices at Federal launch ranges.

The current FAA regulations most pertinent to flight hazard area analysis are found in §§ 417.107(b) (Flight safety) and 417.223 (Flight hazard analysis) for ELVs, and §§ 431.35(b) (Acceptable reusable launch vehicle mission risk) and 431.43(b) (Reusable launch vehicle mission operational requirements and restrictions) for RLVs. Both the ELV and RLV regulations require flight hazard areas to protect against hazards posed by vehicle malfunctions (*e.g.,* an in-flight break-up) and normal flight events that create hazards (*e.g.,* any planned jettison of debris, launch vehicle components, or vehicle stages).

The FAA currently sets requirements to warn of, or limit the operations of, ELVs and RLVs in regions where planned debris impacts are likely, for example, due to jettisoned stages. In § 417.223(b), the FAA currently requires flight hazard area analyses to establish ship and aircraft hazard area warnings to mariners and airman in regions that encompass the three-sigma impact dispersion area for each planned debris impact. Similar language appears in § 431.43(b), which states that a nominal landing location is suitable if the area of the predicted three-sigma dispersion of the vehicle impacts can be wholly contained within the designated location. In the 2000 final rule, the FAA explained that it intended the three-sigma to refer a location where the vehicle or stage landing would be contained 997 times out of 1000 attempts, or 99.7 percent probability of containment.[200] Hence, these regulations used the term ''three-sigma'' to refer to a univariate Gaussian distribution,[201] despite the fact that impact dispersions are bivariate, and not necessarily Gaussian. Notably, neither § 417.223 nor § 431.43 stipulate whether these warning areas must account for all debris or only debris capable of causing a casualty. There is evidence that the separation of large stages can liberate small fragments with a negligible probability of creating a casualty, depending on the nature of the exposed population. For example, people in aircraft are often more vulnerable than people on the ground because a fragment that impacts an aircraft has a much higher kinetic energy due to the velocity of the aircraft.

Both the ELV and RLV regulations require public risk controls, such as evacuation or surveillance, to ensure that no individual member of the public is exposed to greater one-in-a-million (1×10^{-6}) P_C, irrespective of their location on land, sea, or air, to satisfy risk criterion in §§ 417.107(b) and 431.35(b). The part 417 regulations address the identification and surveillance of flight hazard areas explicitly in several sections, including §§ 417.111(b)(5), 417.121(f), and 417.223 as discussed below. Part 431 regulations do not expressly address flight hazard areas. However, the preamble to the 2000 final rule stated that the individual risk limit of 1×10^{-6} P_C would dictate whether or not an area must be evacuated for launch or reentry activity along that trajectory to occur safely, and clarified that limit applied for any person not involved in the licensed activity. Hence, the current RLV regulations clearly intended the evacuation, and surveillance by inference, of any area where a person not involved in the licensed activity would otherwise experience more than 1×10^{-6} P_C.

Only § 417.223 and associated appendices provide specific direction on conducting flight hazard area analyses. In § 417.223(a), the FAA requires launch operators to perform a flight hazard area analysis that identifies any regions of land, sea, or air that must be surveyed, publicized, controlled, or evacuated in order to control the risk to the public from debris impact hazards. In addition, the current regulation notes that the risk management requirements of § 417.205(a) apply to the flight hazard area analyses. Lastly, § 417. 223(a) paragraph lists factors that the analysis must account for.

Regarding aircraft hazard areas, the preamble to part 431 stated that the FAA also reserves discretion to impose measures deemed necessary by that office to protect public safety.[202] This deference to regional offices for aircraft protection resulted in a lack of clarity and potential unevenness to the aircraft protection requirements potentially imposed on RLV operators.

Proposed § 450.133 would establish general requirements for the flight hazard area analysis as well as

[200] 65 FR 56618 (September 9, 2000), at 56629.

[201] Gaussian distribution (also known as normal distribution) is a bell-shaped curve, and it is assumed that during any measurement values will follow a normal distribution with an equal number of measurements above and below the mean value.

[202] 65 FR 56618 (September 19, 2000), at 56646.

requirements specific to waterborne vessel hazard areas, land hazard areas, airspace hazard volumes, and the license application. The proposal would make uniform to launch and reentry the requirement in current § 417.223(a) that operators must identify any regions of land, sea, or air that must be surveyed, publicized, controlled, or evacuated to the extent necessary to ensure acceptable individual and collective risks. However, as discussed later in this section, the proposed regulations would allow operators to reduce, or otherwise optimize, the size of the warning regions for hazards resulting from normal flight events.

The proposal would add a definition of ''flight hazard area'' to § 405.1 to mean any region of land, sea, or air that must be surveyed, publicized, controlled, or evacuated in order to protect the public health and safety, and safety of property. This definition is consistent with the current requirement in § 417.223(a). Note that the proposed definition would allow for the fact that it may be appropriate to issue a public warning for a flight hazard area, but unnecessary to survey or evacuate the area to ensure the public risks are within the criteria given in proposed § 450.101, as explained in the discussion of hazard area surveillance and publication.

Proposed § 450.133(a) would also revise the technical factors for which the hazard area analysis must account to remove language limiting those factors to launch activity alone, thus making consistent the regulations for all types of commercial space transportation operations. The proposal would merge current § 417.223(a)(2), (3), and (4) with slight changes into § 450.133(a)(1) to require an operator to account for the ''regions of land, sea, and air potentially exposed to debris impact resulting from normal flight events and from debris hazards resulting from any potential malfunction.'' Proposed § 450.133(a)(5) would also clarify that the analysis must account for all foreseeable sources of debris dispersion during freefall, including wind effects, guidance and control, velocity imparted by break-up or jettison, lift, and drag forces with winds that are no less severe than the worst wind conditions under which flight might be attempted, and uncertainty in the wind conditions. In § 417.223(a)(4), the current regulation implies that the analysis only needed to account for some exposed populations in the vicinity of the launch site. The proposed § 450.133(a) would further clarify that all sources of debris dispersion must be accounted for by removing any ambiguity associated with what constitutes ''in the vicinity of the launch site;'' by eliminating that phrase, and thus ensuring equal protection for all public exposures. Finally, the proposal would clarify that valid flight hazard area analyses would be required to treat all planned debris hazards, planned impacts, and planned landings as a virtual certainty, consistent with current practice and the regulations in sections A417.23 and B417.13. Again, part 431 does not address flight hazard areas, but current practice for RLVs is generally consistent with the ELV regulations.

Proposed § 450.133(b)(1), (c)(1), and (d)(1) would align FAA regulations with practices at the Federal launch ranges by allowing operators to reduce or otherwise optimize the size of the regions for warnings of potential hazardous debris resulting from normal flight events. Specifically, in § 417.223(b), the FAA currently requires hazard area analyses to establish ship and aircraft hazard area warnings in regions that encompass the three-sigma impact dispersion area for each planned debris impact. Similar language appears in § 431.43(b), and the FAA previously took the position that ''three-sigma'' in this context referred to 99.7 percent probability of containment (as explained earlier). However, the current regulations do not specify if the confidence of containment applies to all planned debris or only debris capable of causing a casualty. In any case, current practice includes the establishment of flight hazard areas sufficient for 97 percent probability of containment of debris capable of causing a casualty. Thus, the proposed requirements in § 450.133 (b)(1), (c)(1), and (d)(1) would be revised to include language reflecting that the provision applies to debris capable of causing a casualty to any person located on land, sea, or air.

Finally, proposed § 450.133(e) would list flight hazard area application requirements. An applicant would need to submit a description of the methodology to be used in the flight hazard area analysis, including all assumptions and justifications for the assumptions, vulnerability models, analysis methods, and input data. This information would include the worst wind conditions under which flight might be attempted accounting for uncertainty in the wind conditions, the classes of waterborne vessels and vulnerability criteria employed, and the classes of aircraft and vulnerability criteria employed. Section 450.133(e)(2) would require an applicant to submit representative hazard area analysis outputs to include tabular data and graphs of the results of the flight hazard area analysis. Note that the proposal would require hazard area results to identify the regions of land, sea, and air considered hazardous, regardless of location or ownership.[203] The proposed requirement to show contours of probability of impact (P_I) and P_C that are an order of magnitude lower than those used to define the flight hazard areas is necessary to demonstrate sufficient computational resolution and analysis fidelity for the results that are critical to public safety. Furthermore, the FAA Air Traffic Organization currently requires identification of regions of air where the P_I exceeds 1×10^{-7} for all debris capable of causing a casualty to persons on an aircraft, in order to facilitate safe and efficient integration of launch and reentry operations into the NAS. Proposed § 450.133(e)(3) would specifically provide that applicants must provide additional products if requested by the FAA to conduct an independent analysis.

12. Debris Risk Analysis

The FAA proposes to streamline, clarify, and make consistent its regulations on debris risk analysis used to evaluate compliance with the public safety criteria in proposed § 450.101. The proposal would require launch and reentry operators to conduct a debris risk analysis that demonstrates compliance with proposed § 450.101 either prior to the day of the operation, accounting for all foreseeable conditions within the flight commit criteria, or during the countdown using the best available input data.

A debris risk analysis determines the expected average number of casualties to the public, individually and collectively, due to inert and explosive debris hazards. This analysis includes an evaluation of risk to populations on land, including areas following passage through any gate in a flight safety limit boundary. The current FAA regulations require a debris risk analysis, but only part 417 provides any specificity about what constitutes a valid analysis including prescriptive requirements in section A417.25 of appendix A. Part 431 provides no requirements to clarify what constitutes a valid debris risk analysis. In practice though, RLV license applicants often abided by debris risk performance requirements set in part 417, such as the need to use trajectory time intervals sufficient to

[203] However, as provided in proposed § 450.161(c), an operator would only be required to publicize warnings for flight hazard areas that exclude any regions of land, sea, or air under the control of the vehicle or site operator or other entity by agreement.

produce smooth and continuous individual risk contours.

Section A417.1 states that the appendix applies to the methods for performing analysis required by §§ 417.107 and 417.225, and provides (1) an acceptable means of compliance, and (2) a standard and a measure of fidelity against which the FAA will measure any proposed alternative analysis approach. However, in some cases the 417 appendices are overly prescriptive and unduly burdensome. For example, section A417.25(c) requires an operator to file with the FAA a debris risk analysis report that includes all populated areas included in the debris risk analysis, which typically translates into many thousands of population centers for an orbital launch, as well as the values of probability of impact and expected casualty for each populated area. In other cases, the part 417 appendices mistakenly neglected to direct an applicant to account for important phenomena, such as the influence of uncertainties in atmospheric conditions on the propagation of debris from each predicted breakup location to impact.

The FAA proposes to streamline, clarify, and make consistent its regulations regarding debris risk analyses to determine if public risks posed by a proposed launch or reentry can comply with the public safety criteria in proposed § 450.101. The proposal would provide performance-based regulations regarding the level of fidelity required for key elements of a valid debris risk analysis, including analyses for the propagation of debris, public exposure and critical assets model, and casualty areas. The proposed debris risk analysis requirements in § 450.135 would supplement the more generic requirements for flight safety methods proposed in § 450.115. The proposal would also align FAA regulations with practices at the Federal launch ranges.

Proposed § 450.135(a) provides applicants an option to perform a debris risk analysis that demonstrates compliance with public safety criteria in § 450.101, either prior to the day of the operation, by accounting for all foreseeable conditions within the flight commit criteria, or during the countdown using the best available input data. Thus, the proposal provides flexibility that was lacking in both parts 417 and 431.

Proposed § 450.135(b) would include performance-based requirements to clarify the phenomena the propagation-of-debris portion of the analysis must consider. The propagation of debris is a physics-based analysis that predicts where debris impacts are likely to occur in the case of a debris event while the vehicle is in flight, such as jettison of a vehicle stage or an explosion. As mentioned previously, section A417 provides some requirements regarding the sources of debris impact dispersions that must be accounted for, but in some cases that was either overly prescriptive or incomplete. A debris risk analysis must compute statistically-valid debris impact probability distributions using the input data produced by FSAs required in proposed §§ 450.117 through 450.133. The propagation of debris from each predicted breakup location to impact would be required to account for all foreseeable forces that can influence any debris impact location, and all foreseeable sources of impact dispersion. At a minimum, the foreseeable sources of impact dispersion must include the uncertainties in atmospheric conditions, debris aerodynamic parameters, pre-breakup position and velocity, and breakup-imparted velocities.[204]

Proposed § 450.135(c) would provide performance-based regulations that specify features of a valid exposure model. An exposure model provides critical input data on the geographical location of people and critical assets at various times when the launch or reentry operation could occur. A debris risk analysis must use an exposure model that accounts for the distribution of people and critical assets. The exposure input data would be required to include the entire region where there is a significant probability of impact of hazardous debris, to characterize the distribution and vulnerability of people and critical assets both geographically and temporally, and to account for the distribution of people in various structure and vehicle types with a resolution consistent with the characteristic size of the impact probability distributions for relevant fragment groups. It would be required to have sufficient temporal and spatial resolution that a uniform distribution of people within each defined region can be treated as a single average set of characteristics without degrading the accuracy of any debris analysis output, and to use accurate source data from demographic sources, physical surveys, or other methods. As well, the exposure input data would be required to be regularly updated to account for recent land-use changes, population growth, migration, and construction. Finally, it would be required to account for uncertainty in the source data and modeling approach.

In § 450.135(d), the proposal would provide performance-based regulations that set forth the features of a valid casualty area and consequence analysis. The proposal would include a definition of casualty area in § 401.5. ''Casualty area'' would mean the area surrounding each potential debris or vehicle impact point where serious injuries, or worse, can occur. A debris risk analysis would be required to model the casualty area and compute the predicted consequences of each reasonably foreseeable vehicle response mode in terms of conditional expected casualties. The casualty area and consequence analysis would be required to account for all relevant debris fragment characteristics and the characteristics of a representative person exposed to any potential debris hazard; any direct impacts of debris fragments, intact impact, or indirect impact effects; and vulnerability of people and critical assets to debris impacts. The vulnerability of people and critical assets to debris impacts would be required to account for the effects of buildings, ground vehicles, waterborne vessel, and aircraft upon the vulnerability of any occupants; for all hazard sources, such as the potential for any toxic or explosive energy releases; and for indirect or secondary effects such as bounce, splatter, skip, slide or ricochet, including accounting for terrain. It would also be required to account for the effect of wind on debris impact vector and toxic releases, and for impact speed and angle (also accounting for motion of vehicles). Finally, it would be required to account for uncertainty in fragment impact parameters, and uncertainty in modeling methodology. These broad performance-based items would replace the unduly narrow and prescriptive requirements in appendix A which would give operators more flexibility in demonstrating that public risk criteria have been met.

In order to provide adequate protection from public safety risks such as the risk of casualties, it is important that analyses used to protect public safety account for all known influences on the vulnerability of people and critical assets. At the same time, the proposal recognizes in § 450.101(g) that a valid method must produce results consistent with or more conservative than the results available from previous mishaps, tests, or other valid

[204] The level of fidelity of the analysis would be subject to the requirements in proposed § 450.101(g) which, as proposed, requires an operator's flight safety analysis method to use accurate data and scientific principles and be statistically valid. The method must produce results consistent with or more conservative than the results available from previous mishaps, tests, or other valid benchmarks, such as higher-fidelity methods.

benchmarks. Hence, the proposal would not require a vulnerability model to account explicitly for each known influence on the empirical results per se, but the proposal would require that a valid vulnerability model produce results that are either consistent with the standard in proposed § 450.101(g).

Proposed § 450.135(e) would list application requirements, which are designed to be more balanced and less prescriptive and ambiguous than current requirements in appendix A to part 417, section A417. The proposal would require an application to describe the methods used to compute debris impact distributions, population exposure data, atmospheric data, as well as how the operator proposes to account for the conditions immediately prior to enabling the launch or reentry flight, per § 450.135(e)(1) through (5).

Proposed § 450.135(e)(6) and (7) would require an applicant to submit sample debris risk analysis outputs, including the effective unsheltered casualty area for all fragment classes, assuming a representative impact vector; and the effective casualty area for all fragments classes for a representative type of building, ground vehicle, waterborne vessel, and aircraft, assuming a representative impact vector. This is not a new requirement because the effective casualty area was always necessary for computing the E_C. The proposal would define effective casualty area in § 401.5 as the aggregate casualty area of each piece of debris created by a vehicle failure at a particular point on its trajectory. The effective casualty area for each piece of debris is a modeling construct in which the area within which 100 percent of the population are assumed to be a casualty, and outside of which 100 percent of the population are assumed not to be a casualty.

In proposed § 450.135(e)(8), an applicant would be required to submit sample collective and individual outputs under representative conditions and the worst foreseeable conditions, including the total collective casualty expectation for the proposed operation; a list of the collective risk contribution for at least the top ten population centers and all centers with collective risk exceeding 1 percent of the collective risk criterion in proposed § 450.101; a list of the maximum individual P_C for the top ten population centers and all centers that exceed 10 percent of the individual risk criterion in proposed § 450.101. The applicant would also be required to submit a list of the probability of loss of functionality of any critical asset that exceeds 1 percent of the critical asset criterion in proposed § 450.101. Proposed § 450.135(e)(9) would require an operator to submit a list of the conditional collective casualty expectation for each vehicle response mode for each one-second interval of flight under representative conditions and the worst foreseeable conditions. Finally, in all FSAs, the applicant must also submit additional products that allow an independent analysis, if requested by the FAA, in order to assure that the public risk criteria are satisfied.

13. Far-field Overpressure Blast Effects

The FAA proposes to consolidate its regulations on far-field overpressure blast effects analyses in proposed § 450.137 (Far-Field Overpressure Blast Effect Analysis), used to demonstrate compliance with the public safety criteria in proposed § 450.101. This analysis looks at the potential public hazard from broken windows as a result of impacting explosive debris, including impact of an intact launch vehicle.

The near-field effects of explosions are covered under debris risk analysis, where meteorological conditions do not significantly influence the attenuation of overpressure. However, the FAA would require a far-field blast effect analysis for peak incident overpressures below 1 pound per square inch (psi,) the point where meteorological conditions can significantly influence the attenuation of explosive overpressures. A launch and reentry operator would be required to conduct a far-field overpressure blast effects analysis (also known as distance focusing overpressure, or DFO) that demonstrates compliance with public safety criteria in proposed § 450.101. An operator would need to complete the analysis either prior to the day of the operation accounting for all foreseeable conditions within the flight commit criteria or during the countdown using the best available input data. An applicant would be required to describe the critical input data, such as the meteorological measurements, and develop flight commit criteria to include any hazard controls derived from this FSA in accordance with proposed § 450.165(b)(6).

Impacting explosive materials, both liquid and solid, have the potential to explode. Given the appropriate combination of atmospheric pressure and temperature gradients, the impact explosion can produce distant focus overpressure at significant distance from the original blast point. Overpressures from as low as 0.1 psi may cause windows to break. However, other forms of overpressure, such as multiple pulses, may also prove hazardous depending on the size and thickness of windows and the number of windowpanes. Moreover, levels of overpressure will change depending on distance, atmospherics, and a vehicle's explosive yield.

Multiple historical events involving large explosions, including rocket failures, have shown that under unfavorable atmospheric conditions, a shock wave may focus to produce significant peak overpressures at communities beyond the boundaries of the launch site, potentially causing window breakage and injuries. In light of the historical evidence of blast damage due to overpressure focusing, and building on the legacy of U.S. agency efforts to protect against the potential public risks associated with rocket explosions, the FAA adopted regulations to protect the public from the DFO phenomena in § 417.229 (Far-field overpressure blast effect analysis) and appendix A to part 417 (section A417.29.) In § 417.229, the FAA requires an FSA to establish flight commit criteria that protect the public from any hazard associated with DFO effects and demonstrate compliance with the public risk criterion. Section 417.229(b) currently lists appropriate constraints on the analysis and section A417.29 provides an acceptable means of compliance. Section A417.29 includes hazard controls based on ANSI S2.20–183 Standard,[205] as well as a standard and a measure of fidelity used to assess any proposed alternative analytic approach. Section A417.29 also lists the products of a valid DFO analysis.

However, current regulations lack clarity on when a day-of-launch DFO analysis is necessary. Specifically, section A417.29(c) requires that an operator conduct a risk analysis that accounts for ''current meteorological conditions,'' unless the operator complies with the prescriptive requirements in § 417.229(b) that include the extremely conservative method prescribed by the ANSI S2.20–183 Standard. These requirements have led to situations where an operator was technically required to perform a day-of-launch risk analysis to protect against the DFO hazard, when in fact the public risks due to the DFO phenomena were insignificant based on every weather condition measured over a period of many years.

Part 431 does not explicitly address the potential public hazard posed by

[205] ANSI S2.20–1983, *Estimating Air Blast Characteristics for Single Point Explosions in Air, with a Guide to Evaluation of Atmospheric Propagation and Effects,* Acoustical Society of America, New York (1983).

DFO. However, since 2016, § 431.35(b)(1)(i) has required an applicant to demonstrate that the total collective risk does not exceed 1×10^{-4} E_C, where the total risk consists of risk posed by impacting inert and explosive debris, toxic release, and far-field blast overpressure. Because the RLVs licensed to date under part 431 have relatively low potential explosive yields (compared to large ELVs), some part 431 license applicants were able to perform hazard analyses based on the extremely conservative method prescribed by the ANSI S2.20–183 Standard to demonstrate that the public risks due to the DFO phenomena were insignificant.

The FAA proposes to streamline and clarify its regulations on DFO analyses. Whereas part 417 regulations and relevant appendices contain prescriptive methodology requirements in Appendix A, the proposal would distill these sections into performance requirements applicable to both launch and reentry flight operations.

Proposed § 450.137(a) would provide applicants an option to perform a DFO risk analysis that demonstrates compliance with public safety criteria in proposed § 450.101, either prior to the day of the operation, by accounting for all foreseeable conditions within the flight commit criteria, or during the countdown using the best available input data. If an operator could satisfy § 450.137(a)(1), then it would not be required to satisfy § 450.137(a)(2). There are at least two different screening analyses that would demonstrate compliance with § 450.137(a)(1). Method one would be a very simple deterministic window breakage screening analysis. Method two would be a simplified risk-based screening analysis. If either screening analysis indicates no potential hazards or insignificant risks, with or without mitigations, then an operator would not be required to comply with § 450.137(a)(2). Conversely, an operator would be required to satisfy proposed § 450.137(a)(2) if it could not demonstrate compliance with § 450.137(a)(1). Thus, the proposal would provide clarity regarding how to determine if a day-of-operations risk analysis is necessary, and flexibility to establish flight commit criteria to limit the contribution of DFO public risks based on analysis done prior to the day of the operation. This clarity and flexibility were lacking in both parts 417 and 431.

Proposed § 450.137(b) would set required performance outcomes and the specific factors that a DFO FSA must consider. Substantively, § 450.137(b) would contain the same requirements as those currently in § 417.229(b). Note that the level of fidelity of the DFO analysis would be subject to the requirements in proposed § 450.101(g), so that the analysis methods used must produce results consistent with, or more conservative than, the results available from valid benchmarks.

Proposed § 450.137(c) would clarify the materials an operator must submit with its license application, which are generally consistent with those currently required to comply with part 417. This paragraph would clarify the level of fidelity required for the products of a DFO analysis by specifying the key input data and critical model elements that an application would be required to describe. The proposal would require an application to include: (1) A description of the population centers, terrain, building types, and window characteristics used as input to the far-field overpressure analysis; (2) a description of the methods used to compute the foreseeable explosive yield probability pairs, and the complete set of yield-probability pairs, used as input to the far-field overpressure analysis; (3) a description of the methods used to compute peak incident overpressures as a function of distance from the explosion and prevailing meteorological conditions, including sample calculations for a representative range of the foreseeable meteorological conditions, yields, and population center locations; (4) a description of the methods used to compute the probability of window breakage, including tabular data and graphs for the probability of breakage as a function of the peak incident overpressure for a representative range of window types, building types, and yields accounted for; (5) a description of the methods used to compute the P_C for a representative individual, including tabular data and graphs for the P_C, as a function of location relative to the window and the peak incident overpressure for a representative range of window types, building types, and yields accounted for; (6) tabular data and graphs showing the hypothetical location of any member of the public that could be exposed to a P_C of 1×10^{-5} or greater for neighboring operations personnel, and 1×10^{-6} or greater for other members of the public, given foreseeable meteorological conditions, yields, and population exposures; (7) the maximum expected casualties that could result from far-field overpressure hazards greater given foreseeable meteorological conditions, yields, and population exposures; and (8) a description of the meteorological measurements used as input to any real-time far-field overpressure analysis. It would also require the submission of any additional products that allow an independent analysis, as requested by the Administrator.

14. Toxic Hazards for Flight

The FAA proposes to replace current § 417.227 and appendix I to part 417 with the following two performance-based regulations: § 450.139 for toxic hazard analyses for flight operations and § 450.187 for toxic hazards mitigation for ground operations.

Currently, the requirements for a toxic release hazard analysis are specified in § 417.227. Section 417.277 requires that an FSA establish flight commit criteria that protect the public from any hazard associated with toxic release and demonstrate compliance with the public risk criteria of § 417.107(b). This analysis must account for any toxic release that will occur during the proposed flight of a launch vehicle or that would occur in the event of a flight mishap, and for all members of the public that may be exposed to toxic release. Additionally, § 417.405 sets forth the requirements for a ground safety analysis, and, although toxic release is not explicitly enumerated, a launch operator must identify each potential hazard including the sudden release of a hazardous material. Appendix I to part 417 provides methodologies for performing toxic release hazard analysis for the flight of a launch vehicle and for launch processing at a launch site in the U.S. as required by § 417.407(f).

Similarly, § 431.35 requires that for a reusable launch vehicle mission, an applicant must demonstrate that the proposed mission does not exceed the acceptable risk defined in § 417.107(b)(1) that includes the risk associated with toxic release. Further, § 431.35(c) requires that an applicant employ a system safety process to identify the hazards and assess the risks to public health and safety of property associated with the mission. Although parts 431 and 435 have the same risk criteria for toxic release as are contained in part 417, unlike part 417, they have no explicit requirements for establishing toxic thresholds. Instead, toxic hazards are addressed as part of the systems safety process. The lack of definitive requirements in parts 431 and 435 has created a lack of clarity as to the requirements for toxic release hazard analysis during the system safety process.

The current toxic hazard requirements have a number of shortcomings. The

requirements of § 417.227 are not sufficiently definitive for an operator to establish the toxic concentration and exposure duration threshold for a toxic propellant, to evaluate toxic hazards for flight or for ground operations, to determine a toxic hazard area in the event of a release during flight or from a ground operations mishap, or to require toxic containment or evacuation of the public from a toxic hazard area.

Conversely, the existing appendix I to part 417 is overly prescriptive in defining permissible values for assumptions and data inputs to analyses but, as discussed later, lacks important items. In many instances, appendix I requires specific methods, formulas, acceptable sources, specific conditions, and assumptions. However, often these are not the only ways in which the requirements or required demonstrations can be made.

There are numerous examples of the prescriptive nature of appendix I to part 417. For example, section I417.3(c)(1) identifies only three agencies of the U.S. Government, namely, the Environmental Protection Agency, the Federal Emergency Management Agency, and the Department of Transportation, that the launch operator is permitted to use as sources of toxicant levels of concern (LOC). There are no common standards in toxicological dose-response data. The data bases of concentration thresholds are different from agency to agency. Specific toxic chemicals that are released may not be included in some or many lists, and some databases account for exposure durations where others do not. Additionally, some databases account for differences in the age and vulnerability of populations exposed, while others do not. Furthermore, some databases account for differences in the severity of physiological responses to exposure, when others do not. Therefore, excluding available dose-response databases limits the capability of the operator to select the most appropriate LOC. Other U.S Government agencies that have established airborne toxic concentration thresholds of exposure, including the National Research Council (NRC), the U.S. Occupational Safety and Health Administration (OSHA), the National Institute for Occupational Safety and Health (NIOSH), the National Oceanic and Atmospheric Administration (NOAA), the American Conference of Government Industrial Hygienists (ACGIH), the U.S. Department of Defense, the National Institutes of Health (NIH), the U.S. National Institute of Medicine, and the U.S. National Library of Medicine.

Other prescriptive examples in Appendix I include section I417.3(c)(3) which requires the launch operator to use only one formulation to determine the toxic concentration threshold for mixtures of two or more toxicants, and section I417.5(c)(2), which prescribes a set of single-valued worst-case conditions that a launch operator must apply in an analysis of toxic hazard conditions for uncommon or unique propellants. Other sections of the appendix mandate specific assumptions.[206]

In addition to being overly prescriptive, Appendix I also contains inaccuracies and out of date information. For example, section I417.7(b) (Process hazards analysis) provides that an analysis that complies with 29 CFR 1910.119(e) satisfies section I417.7(b)(1) and (2). However, the specific requirements of 29 CFR 1910.119(e) are not completely congruent with the specific requirements of section I417.7(b)(1) and (2). In particular, the following requirements of section I417.7(b)(2) do not have counterparts in § 1910.119(e): location of the source of the release; each opportunity for equipment malfunction or human error that can cause an accidental release; and each safeguard used or needed to control each hazard or prevent equipment malfunctions or human error. Thus, if an operator chooses to satisfy § 1910.119(e), important parts of section I417.7(b)(2) may not be addressed, such as the location of the source of the release which is needed to determine the toxic hazard area necessary to achieve toxic containment.

The tables in appendix I are also problematic and in many cases omit important information. For example, Table I417–1, Commonly Used Non-Toxic Propellants, contains only three propellants, designated as commonly used non-toxic propellants. However, this list leaves other non-toxic liquid propellants such as liquid methane or liquefied natural gas without an explicit exemption from performing a toxic release hazard analysis.

The FAA proposes to consolidate the requirements for toxic release analysis for the launch of an ELV currently contained in parts 415 and 417, the launch and reentry of an RLV in part 431, and the launch of a reentry vehicle other than a reusable launch vehicle in part 435. Specifically, the FAA proposes to replace current § 417.227 and appendix I to part 417, with two performance-based regulations—proposed §§ 450.139 and 450.187. The proposed requirements would apply to all launches and reentries, and would provide more definitive application requirements for the toxic release hazard analysis.

Both proposed §§ 450.139 and 450.187 would apply to launch and reentry vehicles, including all components and payloads that have toxic propellants or other toxic chemicals, making it explicitly clear that reentry operations require a toxic hazard release analysis where the requirement was not previously explicit in parts 431 and 435. The FAA decided to split the toxic release analysis regulations into two sections, one for flight and the other for ground operations, because ground operations and flight operations have different criteria available to establish an acceptable level of public safety. Specifically, the FAA proposes to apply a quantitative public risk acceptability criteria for flight consistent with the risk criteria in § 450.101 and to apply a qualitative hazard acceptability criterion for ground hazards that is consistent with the standard in § 450.109(a)(3).[207]

Proposed § 450.139(b)(1) would require an operator to conduct a toxic release hazard analysis. Additionally, under paragraph (b)(2) an operator would be required to manage the risk of casualties that could arise from exposure to toxic release either through containing hazards in accordance with proposed § 450.139(d) or performing a toxic risk assessment under proposed paragraph (e) that protects the public in compliance with proposed § 450.101, including toxic release. Furthermore, under proposed § 450.139(b)(3) an operator would be required to establish flight commit criteria based on the results of its toxic release hazard analysis, containment analysis, or toxic risk assessment for any necessary evacuation of the public from any toxic hazard area.

Section 450.139(c) would contain the requirements for a toxic release hazard analysis, which are currently lacking in

[206] For example, section I417.7(e)(2), the worst-case release scenario for toxic liquids, requires an assumption that liquid spreads to one centimeter deep, and that the volatilization rate must account for the highest daily maximum temperature occurring the past 3 years precluding more severe or more realistic worst-case conditions, such as assuming the liquid spreads to a lesser depth, exposing a greater surface area for evaporation. This may not be conservative enough to provide acceptable public safety in some cases.

[207] Section 450.109(a)(3) would require that the risk associated with each hazard meets the following criteria: (i) The likelihood of any hazardous condition that may cause death or serious injury to the public must be extremely remote and (ii) the likelihood of any hazardous condition that may cause major damage to public property or critical assets must be remote.

§ 417.227. Specifically, under proposed § 450.139(c) the toxic release hazard analysis would require an operator to account for any toxic releases that could occur during nominal or non-nominal launch or reentry for flight operation. Furthermore, an operator's toxic release hazard analysis would be required to include a worst-case release scenario analysis or a maximum-credible release scenario analysis for each process that involves a toxic propellant or other chemical; determine if toxic release can occur based on an evaluation of the chemical compositions and quantities of propellants, other chemicals, vehicle materials, and projected combustion products, and the possible toxic release scenarios; account for both normal combustion products and any unreacted propellants and phase change or molecular derivatives of released chemicals; and account for any operational constraints and emergency procedures that provide protection from toxic release. While the proposed § 450.139(c) would contain more definitive requirements than current regulations, it would also provide the operator more flexibility in the analysis because unlike the current regulations it would not require an operator to make specific assumptions when performing a worst-case release scenario analysis to determine worst-case released quantities of toxic propellants, toxic liquids, or toxic gases from ground operations.

Proposed § 450.139(b)(2) would require an operator to manage the risk of casualties arising from toxic release either by containing the hazards in accordance with paragraph (d) or by performing a toxic risk assessment in accordance with paragraph (e) that protects the public in compliance with the risk criteria of § 450.101. If an operator chose toxic containment to comply with proposed § 450.139(b)(2), the operator would be required to manage the risk of casualties by either (1) evacuating, or being prepared to evacuate, the public from a toxic hazard area, where an average member of the public would be exposed to greater than one percent conditional individual P_C in the case of worst-case release or maximum credible release scenario, or (2) by employing meteorological constraints to limit a launch operation to times when the prevailing winds would transport a toxic release away from populated areas otherwise at risk. The conditional individual P_C would be computed assuming that (1) a maximum credible release event occurs, and (2) average members of the public are present along the boundary of the toxic hazard area.

If an operator chose to comply with proposed § 450.139(b)(2) by conducting a toxic risk assessment that protects the public in compliance with proposed § 450.101, in accordance with § 450.139(e), the toxic risk assessment would require the operator to account for airborne concentration and duration thresholds of toxic propellants or other chemicals. For any toxic propellant, other chemicals, or combustion product, an operator would be required to use airborne toxic concentration and duration thresholds identified in a means of compliance accepted by the Administrator. Currently, the thresholds set by the Acute Exposure Guideline Level 2 (AEGL–2), the Emergency Response Planning Guidelines Level 2 (ERPG–2), or the Short-term Public Emergency Guidance Level (SPEGL) [208] would be accepted means of compliance for proposed § 450.139(e)(1) (and § 450.187(d)(1)). These are thresholds designed to anticipate casualty-causing health effects from exposure to certain airborne chemical concentrations. The FAA anticipates, as discussed earlier, that additional agencies' threshold values could satisfy the requirements and would identify any additional accepted thresholds. By requiring an operator to use airborne toxic concentration thresholds identified in a means of compliance accepted by the Administrator under proposed § 450.35, the FAA anticipates that operators would be provided with some flexibility to utilize toxic concentration thresholds identified by agencies other than the three currently identified in appendix I to part 417 thereby enhancing the capability of the operator to select the most appropriate LOC for its operation.

An operator also would be required under § 450.139(e)(2) to account for physical phenomena (such as meteorological conditions and characterization of the terrain) expected to influence any toxic concentration and duration in the area surrounding the potential release site instead of prescribing a set of single-valued wind speed and atmospheric stability classes and dictating how an operator must derive the variance of the mean wind directions. Hence, under proposed § 450.139(e)(2) the toxic assessment would likely be more appropriate for the actual situation. Proposed § 450.139(e)(3) would require an operator to determine a toxic hazard area for the launch or reentry, surrounding the potential release site for each toxic propellant or other chemical based on the amount and toxicity of the propellant or other chemical, the exposure duration, and the meteorological conditions involved. Finally, under proposed § 450.139(e)(4) and (5) the toxic assessment would be required to account for all members of the public that may be exposed to the toxic release, including all members of the public on land and on any waterborne vessels, populated offshore structures, and aircraft that are not operated in direct support of the launch or reentry, and for any risk mitigation measures applied in the risk assessment.

In many respects, proposed §§ 450.139 and 450.187 are nearly identical, and the rationale behind the revisions proposed in § 450.139 would be the same for proposed § 450.187. As discussed previously, proposed § 450.187 would apply to any launch or reentry vehicle, including all vehicle components and payloads, that uses toxic propellants or other toxic chemicals. Like § 450.139, § 450.187(b) would require a toxic hazard analysis.

Under the proposed rule an operator would be required to manage risk from a toxic release hazard or demonstrate compliance with proposed § 450.109(a)(3) [209] with a toxic risk assessment. The requirements for a toxic risk assessment under proposed § 450.187(e) are substantially similar to those of proposed § 450.139, except that ground operations use a qualitative acceptability criteria and flight operations can use quantitative risk criteria. FAA has not proposed quantitative criteria for ground operations because there are no commonly accepted criteria.

The proposed application requirements under § 450.139(f) toxic hazards for flight and under § 450.187(e) for ground operations would be similar. The FAA believes that the proposed approach will provide applicants with a clear understanding of what the FAA requires in order to avoid repeated requests for clarifications and additional information. Both would require the applicant to submit: (1) The identity of the toxic propellant, chemical, or toxic combustion products or derivatives in the possible toxic release; (2) its selected airborne toxic concentration and duration thresholds; (3) meteorological conditions for the atmospheric

[208] AEGLs are used by EPA, the American Industrial Hygiene Association's ERPGs are used by NOAA, and the National Research Council's SPEGL is used by the DOD.

[209] As discussed earlier, § 450.109(a)(3) would require that the risk associated with each hazard meets the following criteria: (i) The likelihood of any hazardous condition that may cause death or serious injury to the public must be extremely remote and (ii) the likelihood of any hazardous condition that may cause major damage to public property or critical assets must be remote.

transport, and buoyant cloud rise of any toxic release from its source to downwind receptor locations; (4) characterization of the terrain; (5) the identity of the toxic dispersion model used, and any other input data; (6) representative results of toxic dispersion modeling to predict concentrations and durations at selected downwind receptor locations; (7) a description of the failure modes and associated relative probabilities for potential toxic release scenarios used in the risk evaluation; (8) the methodology and representative results of the worst-case or maximum-credible quantity of any toxic release; (9) a demonstration that the public will not be exposed to airborne concentrations above the toxic concentration and duration thresholds; (10) the population density in receptor locations that are identified by toxic dispersion modeling as toxic hazard areas; and (11) a description of any risk mitigations applied in the toxic risk assessment; and (12) the identity of the population database used. Like other risk analyses, the FAA may request additional products that allow the FAA to conduct an independent analysis.

15. Wind Weighting for the Flight of an Unguided Suborbital Launch Vehicle

The FAA proposes to consolidate three current part 417 provisions expressly regulating unguided suborbital launch vehicle operations into § 450.141. The proposed rule would retain the performance requirements and remove the prescriptive provisions in §§ 417.125 and 417.233. The FAA also proposes to incorporate the overarching safety performance requirements in appendix C to part 417 related to wind weighting analysis products. This proposal applies specifically to the flight of unguided suborbital launch vehicles using wind weighting to meet the public safety criteria of proposed § 450.101.

An unguided suborbital launch vehicle is a suborbital rocket that does not contain active guidance or a directional control system. Unlike the launch of a guided launch vehicle, an unguided suborbital launch vehicle may safely fly by adjusting the launcher azimuth and elevation (aiming the rocket) shortly before launch to correct for the effects of wind conditions at the time of flight. This process limits impact locations to those that minimize public exposure. The FAA refers to this safety process as ''wind weighting,'' which involves unique organizational and operational safety requirements.

Section 417.125 provides the broad requirements for launching an unguided suborbital launch vehicle. Specifically, it lays out provisions for a flight safety system, a wind weighting safety system, public risk criteria, stability, tracking, and post launch review. Section 417.125(b) requires an applicant to use an FSS if the vehicle can reach a populated area and the applicant does not use an effective wind weighting system. Section 417.125(c) sets requirements for a wind weighting system if that system is used in place of an FSS. It provides that the vehicle must not contain a guidance or directional control system. It also requires the launcher azimuth and elevation setting to be wind weighted to correct for the effects of wind conditions at the time of flight in compliance with § 417.233's FSA requirements, and requires specific nominal launcher elevation angle for proven (85°, and 86° with wind correction) and unproven (80°, and 84° with wind correction) unguided suborbital launch vehicles. These prescriptive launch elevation angles are used so that the vehicle does not fly uprange. In other words, the rocket should not be angled so vertically that winds could force the rocket uprange instead of the intended downrange direction. Section 417.125(d) expressly requires unguided suborbital launch vehicles to fly in accordance with the public risk criteria required for all launch vehicles under part 417.

In addition, the current rule has stability, tracking, and post-launch review requirements that are specific to unguided suborbital launch vehicles. Section § 417.125(e) requires specific stability requirements measured in calibers to ensure that the unguided suborbital launch vehicle is stable throughout flight. The tracking requirements in § 417.125(f) require that a launch operator track impact locations after launch to verify that the preflight wind weighting analysis was accurate. Section 417.125(g) is related to post-launch review and states that the launch operator must provide these impact locations, a comparison of actual to predicted nominal performance, and investigation results of any launch anomaly.

Current § 417.233 describes the FSA requirements particular to unguided suborbital launch vehicles with wind weighting systems. The analyses must establish flight commit criteria, wind constraints under which launch may occur, and launcher azimuth and elevation settings that correct for wind effects on the launch vehicle. This last requirement is known as the wind weighting analysis.

Appendix C to part 417 contains flight safety methodologies and products for an unguided suborbital launch vehicle flown with a wind weighting safety system. These includes methodologies and products for a trajectory analysis, a wind weighting analysis, a debris analysis, a risk analysis, and a collision avoidance analysis. Section C417.3 requires the launch operator perform a six-degrees-of-freedom trajectory simulation in order to determine a nominal trajectory, impact point, and potential three-sigma dispersions about the nominal impact point. Section C417.5 is related to wind weighting and describes the methodology an applicant must use to measure winds and incorporate them into the trajectory simulation in order to determine launch elevation angle and azimuth settings. The debris (section C417.7) and risk (section C417.9) analyses describe methodologies and analysis products applicable to all launch vehicles for calculating E_C. The parts of appendix C that are covered elsewhere in the proposed rule because they are applicable to all vehicles have not been transferred to proposed § 450.141. This includes the debris, risk, and collision avoidance analyses.

Proposed § 450.141 would consolidate the requirements of §§ 417.125 and 417.233 and appendix C, but would not carry over the detailed methodological and prescriptive requirements. Proposed § 450.141(a) would explain that the section applies to the flight of an unguided suborbital launch vehicle using a wind weighting safety system to meet the public safety criteria of proposed § 450.101. The FAA proposes to define a wind weighting safety system as equipment, procedures, analysis, and personnel functions used to determine the launcher elevation and azimuth setting that correct for wind effects that an unguided suborbital launch vehicle will experience during flight. The FAA proposes the wind weighting safety system be a means to satisfy the safety requirements in proposed § 450.101.

Proposed § 450.141(b) would set the requirements for the wind weighting safety system. It would require that the launcher azimuth and elevation angle settings (1) be wind weighted to correct for the effects of wind conditions at the time of flight to provide a safe impact location, and (2) ensure the rocket will not fly in an unintended direction given wind uncertainties. This section would replace current § 417.125(b), which requires a flight safety system unless the vehicle uses wind weighting or does not have sufficient energy to reach a populated area. Rather than the blanket FSS requirement in current § 417.125(b), the consequence analysis in proposed § 450.135(d) would determine the need

for an FSS. This section also eliminates the requirement in § 417.125(c)(3) regarding specific nominal launcher elevation angle for proven (85° and 86° with wind correction) and unproven (80° and 84° with wind correction) vehicles to prevent the vehicle from flying uprange. Rather than requiring specific launcher elevation angles to prevent a vehicle from flying uprange, the FAA would require an operator to determine what angles would ensure the rocket not fly in unintended direction given wind uncertainties. This flexibility would allow a licensee to determine the best angle to both maximize mission objectives given the particularities of their operation while simultaneously ensuring safety.

Proposed § 450.141(c) would contain FSA performance requirements that apply only to the launch of an unguided suborbital launch vehicle flown with a wind weighting safety system. It is necessary to establish the flight commit criteria and other flight safety rules to control risk to the public and satisfies the public safety criteria in proposed § 450.101. Proposed § 450.141(c) would require an operator to establish any wind constraints under which launch could occur, and conduct a wind weighting analysis that establishes the launcher azimuth and elevation settings. Proposed § 450.141(c) is, in essence, the same as § 417.233.

Proposed § 450.141(d) would require an unguided suborbital launch vehicle to remain stable in all configurations throughout each stage of powered flight. This performance outcome would eliminate the need for the specific prescriptive stability requirements of current § 417.125(e), which requires a suborbital launch vehicle be stable in flexible body to 1.5 calibers and rigid body to 2.0 calibers throughout each stage of powered flight.

Finally, proposed § 450.141(e) would establish the agency's application requirements specific to unguided suborbital launch vehicles. The FAA would require a description of wind weighting analysis methods, description of wind weighting system and equipment, and a sample wind weighting analysis, all derived from part 417, appendix C, section C417.5(d). The remainder of appendix C was not included in the proposal because these are all prescriptive methodologies, or are requirements applying to all launch vehicles covered in other sections of the proposal. For instance, the Trajectory Analysis of section C417.3 would be covered by proposed §§ 450.117 and 450.119. Except for section C417.5(d) as described earlier, section C417.5 was not included in the proposal since this is a prescriptive methodology. The methodologies for debris analysis from section C417.7 are not in the proposal and the debris analysis proposal would now be in proposed § 450.121. Similarly, section C417.9 would be covered by proposed § 450.135 without the prescribed methodologies. Lastly, the collision avoidance section of the appendix, section C417.11 would be covered by proposed § 450.169.

B. Software

As discussed earlier, the FAA proposes software safety requirements in § 450.111. The risk mitigation measures that result from this rule are meant to be minimums, and software development processes tend to benefit from consistency across projects, so an applicant may apply the requirements from its most critical software to all of its software, but the FAA does not require that an applicant do so.

Software can contribute to accidents or losses in several ways. Software may contain errors that, in certain system conditions, cause unintended behaviors or prevent intended behaviors. Software may also perform actions that while correct and intended in isolation, cause hazards when interacting with other components or the system as a whole. Software may provide accurate information to an operator in a manner that confuses the operator, leading to a software-human interaction error. Software safety therefore typically requires separate analyses of the software, software and computing system interaction, and the integration of software, hardware, and humans into the entire system.

Software becomes safety-critical when the applicant uses its outputs in safety decisions. The development, validation, and evaluation of safety-critical software requires a level of rigor commensurate with the severity of the potential hazards and the software's degree of control over those hazards. Reliance on software differs among operators. For example, some launch systems employ Autonomous Flight Safety Systems (AFSS) that rely on rigorously-developed and thoroughly-tested software to make safety decisions to protect the public without human intervention. Other systems require human intervention to make safety decisions, such as when a pilot or ground transmitter operator must make decisions for launch systems.

Current FAA licensing regulations segregate software safety requirements by type of vehicle (ELV, RLV, or reentry vehicle) in three separate sections.[210] Current software safety regulations in parts 415, 417, and 431 are flexible. With this flexibility comes uncertainty. For example, § 415.123(b) requires that a launch operator provide all plans for software development, the results of software hazard analyses, and plans and results of software validation and verification, but does not give guidance on the minimum-acceptable levels of rigor for those products or guidance on their contents. The FAA and the operator must determine the appropriate level of rigor, scope, and content of each plan and result for each operation. This process can be labor-intensive, requiring multiple meetings over a period of weeks or months.

Also, § 417.123(c), applicable to ELVs, requires that a launch operator conduct computing system and software hazard analyses for the integrated system. This requirement does not specify the requisite forms of the analyses, the scope and contents of the analyses, or the application data required to demonstrate compliance with the requirement. The FAA and the applicant must negotiate the specifics for each of those items for every application. Similarly, § 417.123(d) requires that a launch operator develop and implement computing system and software validation and verification plans, but is silent regarding the contents of the plans. This again requires that the FAA and the applicant discuss, often at length, the software test plans for every operation.

Unlike §§ 415.123 and 417.123, § 431.35 does not contain any explicit references to software safety. However, in practice, the FAA has set software safety requirements under the current system safety process requirements in § 431.35(c). Pursuant to § 431.35(c), the FAA has required applicants satisfy § 417.123 or demonstrate an equivalent level of safety, in order to meet § 431.35 for software safety. This lack of detail forces the FAA and applicant to work collaboratively to develop the system safety process criteria on a case-by-case basis.

Operators have offered consistent feedback on the FAA's software safety requirements. Applicants frequently asked whether §§ 417.123(b) and 431.35(c)'s verification and validation plan requirement included a requirement for independent verification and validation. Independent verification and validation is a common

[210] Part 415 covers launch license application procedures for ELVs; part 417 addresses launch safety requirements for ELVs, and part 431 sets launch license and safety requirements for RLVs.

and effective method of mitigating software hazards for high-criticality software, one for which there is no known substitute. Thus, although not explicitly stated in the regulations, the FAA has required independent verification and validation as part of the verification and validation requirements in §§ 417.123(b) and 431.35(c). The FAA considers software testers independent when the test organization is independent of the development organization up to the senior-executive level. Generally, an in-house software testing team can be sufficiently independent to perform a credible independent verification and validation function when rigorously insulated from software development authorities and incentives. Still more independence may be required for highly safety-critical autonomous software, such as an independent contractor, depending on the risks and the other mitigation measures implemented by the applicant. The FAA has required at least independence up to the senior-management level and expected an applicant to show evidence of this independence in its application.

Applicants have also often asked whether the FAA requires submissions of software code. The FAA has not historically required executable code submissions and does not plan to do so in this proposal. Instead, the FAA's requirements focus on the software development and testing processes, combined with analysis of the software's use in the context of the system as a whole. Firstly, the FAA seeks to understand the software development processes used for the design, production, verification, and qualification of software to determine the code quality. Proposed § 450.111(a), (b), and (c) would provide these general software process requirements that are independent of the degree of control exercised by a given software component. Secondly, the FAA must understand the impacts of the software on the system as a whole. It is important to understand design risks, which are those risks inherent to the software design and architecture; and also process risks, which arise from the software development processes and standards of the applicant. The FAA uses these two components, process and implementation, to evaluate software components and processes for the appropriate level of rigor.

The FAA must also understand the relationship between software actions and system risks to set the appropriate level of rigor. Establishing the required level of rigor and understanding its implementation form the basis of software safety determinations. Configuration management, including version control, then ensures the operator uses the intended processes and functionality for the correct software in the system's operation.

Applicants have often sought help in determining whether software is safety-critical in accordance with §§ 417.123(b) and 415.123(a). For instance, operators sometimes use software to generate information used in safety-critical decisions, such as initiating a deorbit burn. The FAA has consistently found software that generates information used in safety-critical decisions to be safety-critical software, albeit with a low degree of control over the system.

Applicants have also asked whether the FAA requires redundant processing such as running a second instance of a software component on a second independent computer, and if so, the required level of risk. The FAA has made such determinations based on the hazards involved and on the software's degree of control over those hazards. The FAA has chosen not to prescribe a requirement for redundant processing because such a requirement is best derived from the applicant's individual approach to hazard mitigation at the system level. Redundant copies of identical software contain identical software faults, so redundant processing is best described as a mitigation for hardware failures. The proposal would allow for software without redundant processing whenever processing redundancy is not necessary to achieve acceptable risk. For example, the FAA may not require redundant processing in fail-safe systems, low-criticality systems, or where hardware ensures software processing integrity by using hardware features such as watchdog timers or error-correcting memory.

In light of the range of design strategies between commercial space operators, the FAA realized that a one-size-fits-all approach to software safety would not be practical. Instead, in proposed § 450.111(d) through (g) the FAA would establish requirements for each safety category of software. The safety categories, commonly known in the software safety industry as ''levels of rigor'' or ''software criticality indexes,'' would range from autonomous software with catastrophic hazards to software with no safety impact.

Applicants may rely upon Federal launch range standards to show compliance with the proposed rule, provided the standards meet the regulations. The FAA maintains awareness of the Federal launch range safety standards through the CSWG. The FAA currently incorporates the known and coordinated standards maintained by the Federal launch ranges into FAA licensing in order to avoid duplication of effort. The Federal launch ranges have an extensive launch safety history, and their standards meet or exceed the level of safety required by the FAA. The FAA intends to retain the ability to apply Federal launch range safety standards toward license evaluation and issuance.

In developing this proposed rule, the FAA has tried to remain consistent with prevalent industry standards related to the ''level of rigor'' approach to software safety. Specifically, the FAA has used the level of rigor approaches applied by the Department of Defense and NASA to inform the FAA's proposed level of rigor approach to software safety regulation.

The FAA proposes to use the Department of Defense's MIL–STD–882E concept of ''level of rigor'' to categorize software according to the amount of risk it presents to the operation and use its ''level of rigor tasks'' to derive appropriate regulatory requirements for each level of rigor. MIL–STD–882E uses a software hazard severity category with a software control category to assign level of rigor tasks to software. This method has proven successful in achieving an acceptable level of safety for space operations.

The FAA also used RCC 319, *Flight Termination Systems Commonality Standard,* to develop the requirements for autonomous software in proposed § 450.111(d). RCC 319–14 provides detailed software requirements for autonomous flight safety systems, which have been extensively reviewed by the space community. RCC 319–14 creates software categories that combine hazard severity and degree of control in a single step, and provides deep detail on the appropriate risk reduction tasks for each category. AFSPCMAN 91–712 (draft) is the source of RCC 319–14's software categories and risk reduction tasks.

The FAA also reviewed NASA's Software Safety Standard (NASA–STD–8719.13C), which provides standards applicable to defining the requirements for implementing a systematic approach to software safety. Like RCC 319–14, NASA–STD–8719.13C combines software hazard's severity with the software's degree of control to assign analysis and testing tasks. However, NASA expands its software control category definitions to include software autonomy, software complexity, time-criticality, and degree of hazard control. The FAA also considered NASA's Software Assurance Standard (NASA–STD–8739.8), which provides criticality, risk, resource investment, and financial impact categorizations and correlates

these to levels of software assurance effort. These two NASA documents provided the FAA with a wealth of potential software safety requirements and methods to determine the requirements that would be most appropriate for a variety of space systems. These documents also provided a checklist of key aspects of software projects that enable software safety. The FAA has drawn from these documents the minimum set of requirements that would enable space operators to protect the public, and the minimum set of data that would enable the FAA to verify that space operators will protect the public in the course of their innovations.

Finally, the FAA reviewed the Air Force Space Command's draft 91–712, Launch Safety Software and Computing System Requirements. The Air Force has successfully used 91–712 for military space projects and it is the source of many RCC 319–14 requirements. 91–712, and the standards discussed earlier, all prescribe increasing the effort devoted to software safety in proportion to the severity of the hazards that software can create and in proportion to the degree of control that software exercises over those hazards.

The proposed software safety regulations would categorize software and computing functions into the following degrees of control as defined in proposed § 450.111(d) through (g): Autonomous software, semi-autonomous software, redundant fault-tolerant software, influential software, and no safety impact.

This proposal for software safety would address the causes of software faults and software failures. Software faults are design flaws in software that cause unintended behaviors or prevent intended behaviors. Software faults include errors in syntax, definitions, steps, or processes that can cause a program to produce an unintended or unanticipated result. The presence of software faults might not always result in an observable software failure that is evident to the user because it may appear to be behaving properly. A software failure, in contrast, is an unintended or undesirable event caused by, or unintentionally allowed by, one or more software faults. A software fault is a defect or vulnerability in software while a software failure results from the execution of faulty software.[211]

This proposal would address faults in software requirements by analytical means in proposed § 450.111. Specifically, the proposal would require an applicant to describe the functions and features, including interfaces, of the software. The FAA has interpreted the need to describe software to include providing the software requirements for each safety-critical software component even though not explicitly required by § 431.35 or § 417.123. The proposal therefore codifies current practice.

Software requirements are an excellent, even indispensable, means of understanding any software component's safety implications. Software requirements, both documented and implied, are the basis of the software design and constitute a key part of § 417.123(a) through (e) requirement for software designs. The FAA proposes to clarify the necessity and scope of software requirements that would be required to be included in an application in proposed § 450.111(h). Software requirements would need to be documented and analyzed whenever safety-critical software is present.[212] Software requirements are frequently inherited from system requirements, and both must be internally and mutually consistent and valid for the resulting software to work safely. A system-level hazard analysis finds out what hazards software presents to the system. The software analyses can use the system-level analyses as initial assessments of software's criticality when starting software safety analyses. If software requirements are flawed, the software written to those software requirements will be flawed as well. This causal path, where software faults originate in software requirements, is the reason for the proposal's focus on identification, documentation, validation, and verification of software requirements.

This proposal addresses faults in implementation by requiring specific types of software verification and validation testing in proposed § 450.111(d)(4), (e)(4), (f)(3), and (g)(2). This proposal would clarify the required types of software verification and validation testing that are required under current §§ 417.123(d) and 415.123(b)(8).[213] Verification and validation are standard aspects of a software development cycle and are used together to determine that software meets its intended purpose. In this context, verification refers to ensuring software meets the software requirements and design specifications. Validation ensures that the software achieves its intended purpose.[214] While testing does not ensure the absence of software faults, it helps detect and therefore reduce their presence.

The proposal would address faults in configuration with explicit requirements to establish and verify software configuration management processes. Configuration management is the set of processes that ensure that the flight components, including software components, are the correct components with the appropriate development and test heritage. Faults in configuration management can lead to unsuitable or incompatible components in a system, resulting in an increased potential for unintended and unsafe system actions.

Proposed § 450.111(a) would require operators to document a process that identifies the risks to the public health and safety and the safety of property arising from computing systems and software. This is consistent with the § 417.123(a) requirement for a description of the computing system and software system safety process. It adds no more requirements than part 415 because § 415.123(b)(6) requires an applicant to describe the computing system and software system safety process as required by § 417.123(a). Unlike § 431.35(c), proposed § 450.111(a) specifically mentions computing systems and software as items to be included in the system safety process.

Proposed § 450.111(b) would require an operator to identify all safety-critical functions associated with its computing systems and software. The 10 listed functions are a minimum set of items to include whenever they are present in a system, because they represent the most common safety-critical roles in which software can be employed. For example, software used to control or monitor safety-critical systems is capable of hazardous actions by definition. Similarly, software that accesses safety-critical data is safety-critical because it may alter safety-critical data or prevent other components from accessing safety-critical data at required times. The software safety process must then demonstrate that the software that accesses safety-critical data cannot

[211] An example of a software failure is the ''blue screen of death,'' which causes a computer to end all processing. An example of software fault is a fault in requirements for measurement units and a fault in test procedures. The Mars Climate Orbiter was lost as a result of these two faults when one function was written in English units while the rest were written in metric.

[212] Implied or undocumented software requirements are common sources of software faults.

[213] Examples of testing include unit testing to verify some of the smallest units of code, such as functions, and acceptance testing to validate high-level software requirements.

[214] Verification takes place while the software is under development while validation is performed after completing software development and implementation.

cause a hazard by doing so. These requirements are the same as in the current § 417.123(b), with the addition of one new criterion for software that displays safety-critical information. Proposed § 450.111 would retain the requirement of § 417.123(b) for the identification of safety-critical functions. The proposal would add detail and clarity to this requirement, specifying that the identified functions must be accompanied by assessments of the criticality of each software function. This is normally done by assessing the consequences of a functional failure or error and assessing the degree of control that the software can exercise to implement the function. The proposal would retain the examples of software that may have safety-critical functions, with the expectation that the full list of safety-critical functions is not limited to the examples. It differs from § 415.123(b), which describes the documents and materials that the applicant must provide, whereas proposed § 450.111(b) would list the safety-critical computing system and software functions that must be identified and would not list the application requirements in the same section. The proposal would depart from § 431.35(d)(3) by specifically requiring the applicant to identify all safety-critical functions associated with its computing systems and software instead of implicitly requiring the identification of safety-critical software as part of the process of identifying safety-critical systems.

Proposed § 450.111(c) would require the identification of safety-critical software functions by consequence and degree of control. It would elaborate on the requirements of §§ 415.123(a) and 417.123(a), which require the identification and assessment of the software risks to public safety by specifying that the assessments must include the public safety consequences of each safety-critical software function and the degree of control that software exercises over the performance of that function. Proposed § 450.111(c) would provide the classification for the applicants to use while the application requirements are contained in proposed § 450.111(h). Requiring software degree of control would allow the FAA to request less information for software components with reduced or no influence on public safety. The proposal would differ from § 431.35 by explicitly requiring identification of software hazards by function and specifying the documentation requirements related to computing systems and software in proposed § 450.111(h). Even though this language is different from § 431.35, this is not a new requirement.

The requirements in the proposal vary based on the software degree of control and degree of hazard presented. The first and highest degree of control is autonomous software. Autonomous software would mean software that exercises autonomous control over safety-critical systems, subsystems, or components such that a control entity cannot detect or intervene to prevent a hazard that may impact public health and safety or the safety of property. It is any software that can act without an opportunity for meaningful human intervention. The FAA would impose the most stringent requirements for autonomous software with potential catastrophic public safety consequences. Proposed § 450.111(d) would set forth five criteria specific to autonomous software.

Under proposed § 450.111(d)(1), the software component would be required to undergo full path coverage testing and any inaccessible code must be documented and addressed. Full path coverage testing is a systematic technique for ensuring that all routes through the code have been tested. Path coverage testing includes decision, statement, and entry and exit coverage. Proposed § 450.111(d)(1) would retain and clarify the current requirements in § 431.35(d). Full path coverage testing and documentation of inaccessible code would be required for autonomous components because the presence of inaccessible code segments presents a potential for the execution of untested instructions, which is obviously deleterious for an autonomous system that, by definition, depends on the correctness of its instructions for safe operation.

Under proposed § 450.111(d)(2), the software component's functions would be required to be tested on flight-like hardware. Testing would be required also to include nominal operation and fault responses for all functions. The proposal would retain and clarify the current requirements in §§ 431.35(d) and 415.123(b)(8). Testing software components on flight-like hardware, including nominal operation and fault responses, is an industry standard for ensuring that the software interfaces with the hardware as designed. All autonomous safety-critical components require this testing.

Under proposed § 450.111(d)(3), an operator would be required to conduct hazard analyses of computing systems and software for the integrated system and for each autonomous, safety-critical software component. A software hazard analysis identifies those hazards associated with safety-critical computer system functions, assesses their risk, identifies methods for mitigating them, and specifies evidence of the implementation of those mitigation measures. This requirement is currently in §§ 415.123(b)(7), 417.123(c), and 431.35(d)(4). All software components, regardless of degree of control, require this analysis for the integrated system. This analysis is also required for each autonomous, safety-critical software component. Hazard analyses provide the essential foundation for risk assessment and management of any system. This analysis is necessary throughout the lifecycle of the system, from development to disposal. As a system is modified during design, operation, and maintenance, changes to any part of the system can lead to unexpected consequences that may incur new hazards to public safety. It is important to consider risks that result from software and computing errors as a class or subsystem, as well as those resulting from the operation and interaction of software with all other components of the system.

Proposed § 450.111(d)(4) would require an operator to validate and verify any computing systems and software. Current §§ 415.123(b)(8) and 417.123(d) already require verification and validation although this proposed rule would add the requirement that testing be conducted by testers who are independent from the software developers. Independence is essential because it enables testing of cases and conditions that the software developers may not have considered or may have inadvertently omitted.

Under proposed § 450.111(d)(5), an operator would be required to develop and implement software development plans as currently required in §§ 415.123(b)(9) and 417.123(e)(1) through (5). A software development plan is a means to consolidate and standardize the management of a software development process. These plans would include descriptions of coding standards used, configuration control, programmable logic controllers, and policies on use of commercial-off-the-shelf software and software reuse. It would be updated as necessary throughout the lifecycle of the project, and may be comprised of one or several documents.

The configuration control of a software development project is particularly important to ensure and facilitate an efficient and accurate development process. Therefore, the proposal would retain the existing, if implicit, requirements of § 417.123(e)(2) to limit faults in configuration by

requiring robust configuration management. Proper configuration management ensures consistency and accuracy throughout a system's design, development, operation, and maintenance. In software engineering terms, it is a fundamental aspect of a disciplined approach to the software lifecycle that provides a continuously current baseline for the system. The FAA would set configuration management requirements for all safety-critical documentation and code, including but not limited to software requirements, hazard analysis, test plans, test results, change requests, and development plans. Tools, processes, and procedures for configuration management are employed throughout the software industry.

Proposed § 450.111(e) would apply to semi-autonomous software, with a definition nearly identical to that stated in MIL–STD–882E. The FAA regards semi-autonomous software as software that exercises control over safety-critical hardware systems, subsystems, or components, allowing time for safe detection and intervention by a control entity. The software safety requirements for semi-autonomous software are a subset of those required for autonomous software as described in proposed § 450.111(d).

Under proposed § 450.111(e)(1), the software component's safety-critical functions, as categorized by the process in proposed § 450.111(a), (b), and (c), would be required to be subjected to full path coverage testing and any inaccessible code must be documented and addressed. Proposed § 450.111(e)(1) would retain and clarify current § 431.35(d) as described in proposed § 450.111(d)(1). The rationale for proposed § 450.111(e)(1) and (d)(1) are identical.

Under proposed § 450.111(e)(2), the semi-autonomous software component's safety-critical functions would be required to be tested on flight-like hardware, including testing of nominal operation and fault responses for all safety-critical functions. Proposed § 450.111(e)(2) would also retain and clarify the current requirements in § 431.35(d) as described in proposed § 450.111(d)(2).

Under proposed § 450.111(e)(3), an operator would be required to conduct computing system and software hazard analyses for the integrated system. The proposal would retain the requirement of conducting computing system and software hazard analyses that exists in current §§ 415.123(b)(7), 417.123(c), and 431.35(d)(4). All software components, regardless of level of control, would require this analysis for the integrated system. The rationale for proposed § 450.111(e)(3) and (d)(3) are identical.

Under proposed § 450.111(e)(4), an operator would need to verify and validate any computing systems and software related to semi-autonomous software as described earlier, with the associated rationale, for autonomous software relative to proposed § 450.111(d)(4). This verification and validation would be required to include testing by a test team independent of the software development division or organization. This would retain the requirement for verification and validation of computing systems and software, including testing by an independent test team, as currently required in §§ 415.123(b)(8) and 417.123(d).

Under proposed § 450.111(e)(5), an operator would be required to develop and implement software development plans as currently required in §§ 415.123(b)(9) and 417.123(e)(1) through (5). The rationale for proposed § 450.111(e)(5) and (d)(5) are identical.

Proposed § 450.111(f) would apply to redundant fault-tolerant software, which is defined as software that exercises control over safety-critical hardware systems, subsystems, or components, for which a non-software component must also fail in order to impact public health and safety or the safety of property.[215] There are redundant sources of safety-significant information, and mitigating functionality can respond within any time-critical period. The proposal would include four criteria for redundant fault-tolerant software.

Proposed § 450.111(f)(1) is consistent with the second criteria for autonomous and semi-autonomous software in proposed § 450.111(d)(2) and (e)(2), in that the software component's safety-critical functions would be required to be tested on flight-like hardware, including testing of nominal operation and fault responses for all safety-critical functions. The proposal would retain and clarify the current requirements in § 431.35(d).

Proposed § 450.111(f)(2) would repeat the third criteria for autonomous and semi-autonomous software as described in proposed § 450.111(d)(3) and (e)(3). It would require that an operator conduct computing system and software hazard analyses for the integrated system. The proposal would retain the requirement of conducting computing system and software hazard analyses that exists in the current §§ 415.123(b)(7), 417.123(c), and 431.35(d)(4). All software components, regardless of level of control, would require this analysis for the integrated system. The rationale for this part is the same as that for proposed § 450.111(d)(3).

Under proposed § 450.111(f)(3), an operator would be required to verify and validate any computing systems and software related to redundant fault-tolerant software as described earlier, with associated rationale, for autonomous software related to proposed § 450.111(d)(4) and semi-autonomous software in proposed § 450.111(e)(4). This verification and validation would be required to include testing by a test team independent of the software development division or organization. This would retain the requirement for verification and validation of computing systems and software, including testing by an independent test team, as currently required under §§ 415.123(b)(8) and 417.123(d).

Under proposed § 450.111(f)(4), an operator would be required to develop and implement software development plans as currently required under §§ 415.123(b)(9) and 417.123(e)(1) through (5). The same rationale applies here as for proposed § 450.111(d)(5) and (e)(5).

Proposed § 450.111(g) would apply to software that provides information to a person who uses the information to take actions or make decisions that can impact public health and safety or the safety of property, but does not require operator action to avoid a mishap. Influential software provides information that is used in safety-critical decisions, but cannot cause a hazard on its own. The proposal would include three criteria for influential software.

Proposed § 450.111(g)(1) would require an operator to conduct computing system and software hazard analyses for the integrated system. The proposed rule would retain the requirement of conducting computing system and software hazard analyses that exists in the current §§ 415.123(b)(7), 417.123(c), and 431.35(d)(4). All software components, regardless of level of control, would require this analysis for the integrated system. The rationale for this proposed section is the same as that for proposed § 450.111(d)(3).

Proposed § 450.111(g)(2) would require an operator to verify and validate any computing systems and software related to influential software. This verification and validation would be required to include testing by a test

[215] MIL–STD–882E elaborates that the definition of redundant fault-tolerant assumes that there is adequate fault detection, annunciation, tolerance, and system recovery to prevent the hazard occurrence if software fails, malfunctions, or degrades.

team independent of the software development division or organization. This would retain the requirement for verification and validation of computing systems and software, including testing by an independent test team, as currently required under §§ 415.123(b)(8) and 417.123(d). The rationale for this proposed section is the same as that for proposed § 450.111(d)(4).

Proposed § 450.111(g)(3) would require an operator to develop and implement software development plans as required in existing §§ 415.123(b)(9) and 417.123(e)(1) through (5). The same rationale applies here as for proposed § 450.111(d)(5), (e)(5), and (f)(4).

Proposed § 450.111(h) would retain the application requirements of §§ 415.123 and 417.123, but would vary in the required amount of detail according to the level of control of the software. The amount of application materials would depend on the software component's risk to safety. The proposal would differ from § 431.35 by expressly requiring documentation related to computing systems and software. This requirement was implicit in § 431.35 and the FAA has requested these documents in practice. The FAA would require descriptions of software components with no safety impact but would not impose process requirements. This information would be required to supplement the vehicle description requirements contained elsewhere in this proposal. It would also lead to a shared understanding of the systems and components that do not have known safety significance allowing the FAA only cursorily to review those systems during the license application evaluation without undue concern over undocumented systems, functions, or features.

C. Changes to Parts 401, 413, 414, 420, 437, 440

1. Part 401—Definitions

The FAA proposes to modify definitions in parts 401, 414, 417, 420, 437, and 440. This would include adding new definitions to or modifying current definitions in § 401.5 (Definitions) to align with the new proposed regulations. The FAA also proposes to clarify and move some of the definitions that are currently in part 417 to proposed part 450. Also, the proposal would not retain some of the definitions currently in part 417. Finally, the FAA proposes to remove various current definitions from §§ 401.5 and 420.5.

The FAA proposes to add new definitions to § 401.5. These definitions would be necessary additions to accompany the proposed part 450 requirements, especially in the area of flight safety analysis. Proposed §§ 450.113 through 450.139 would require the addition of ''Casualty Area,'' ''Critical Asset,'' ''Deorbit,'' ''Dose-Response Relationship,'' ''Disposal,'' ''Effective Casualty Area,'' ''Expected Casualty,'' ''Flight Abort,'' ''Flight Abort Rules,'' ''Flight Hazard Area,'' ''Liftoff,'' ''Limits of a Useful Mission,'' ''Orbital Insertion,'' and ''Probability of Casualty.'' Most important within that group are ''Critical Asset,'' which is driven by proposed protection criteria for assets that are essential to the national interests of the United States, and ''Disposal,'' which is driven by proposed upper stage disposal risk criteria. The other terms and associated definitions that would be added to support proposed §§ 450.113 through 450.139 are referenced in the proposed FSA requirements.

The proposed system safety regulations would require the addition of the following terms and associated definitions: ''Hazard Control'' and ''Launch or Reentry System.'' Proposed § 450.101(a)(1) and (b)(1) would require a definition for ''Neighboring Operations Personnel''; proposed § 450.107(b) would require a clear definition of ''Physical Containment''; proposed § 450.111 would require a definition for ''Control Entity'' and ''Software Function''; proposed §§ 450.139 and 450.187 would require a definition for ''Toxic Hazard Area.'' Proposed § 450.101(c) would require the addition of ''Vehicle Response Mode.'' The collision avoidance requirements in proposed § 450.169 would require the addition of ''Reentry Window'' and ''Window Closure'' to § 401.5, while the unguided suborbital requirements in proposed § 450.141 would require the addition of ''Unguided Suborbital Launch Vehicle'' and ''Wind Weighting Safety System.''

These new definitions are discussed in detail in corresponding sections of this preamble, including the proposed meaning and usage.

Current § 401.5 definitions that would be modified by this rule are as follows: ''Contingency Abort,'' which would be simplified; ''Flight Safety System,'' which would be simplified to incorporate the new term ''Flight Abort;'' and ''Instantaneous Impact Point,'' which would remove drag effects and clarify that this term means a predicted impact point. ''Mishap'' would be defined as having four classes or categories, from most to least severe, based on lessons learned as discussed earlier in this preamble. The current definition of ''Public Safety'' would be removed from § 401.5 and the definition of ''Public'' would be removed from § 420.5, and a new definition for ''Public'' would be added to § 401.5. ''Launch'' and ''Reenter; Reentry'' would be modified to remove language that further scopes what aspects of space transportation are licensed, as discussed earlier. Scoping language would be transferred to proposed § 450.3. ''Safety Critical'' would be modified to remove the last sentence because it is unnecessary. The definition for ''State and United States'' would fix a minor printing error.

Section 417.3 contains the definitions for part 417, only some of which would be preserved and added to § 401.5 by this proposed rulemaking. These are ''Command Control System,'' ''Countdown,'' ''Crossrange,'' ''Data Loss Flight Time,'' ''Downrange,'' ''Explosive Debris,'' ''Flight Abort Crew,'' ''Flight Safety Limit,'' ''Gate,'' ''Launch Window,'' ''Normal Flight,'' ''Normal Trajectory,'' ''Operating Environment,'' ''Operation Hazard,'' ''Service Life,'' ''System Hazard,'' ''Sub-Vehicle Point,'' ''Tracking Icon,'' and ''Uprange.'' A number of changes have been made as follows:

- ''Command Control System'' would be modified to take out unnecessary detail.
- ''Countdown,'' ''Downrange,'' ''Explosive Debris,'' and ''Normal Flight'' would be modified to add reentry.
- ''Crossrange,'' ''Launch Window,'' ''Normal Trajectory,'' ''Service Life,'' and ''System Hazard'' would be unchanged.
- The term ''Flight Abort Crew'' would be changed from ''Flight Safety Crew,'' and would be simplified.
- ''Operating Environment'' would be changed to add reentry, and would use the term ''lifecycle'' within the definition instead of the limiting reference to acceptance testing, launch countdown, and flight.
- ''Operation Hazard'' would be modified to clarify that a system hazard is not an operation hazard.
- The term ''Protected Area'' would be removed, and the term ''Uncontrolled Area'' would be added to § 401.5 but with the inclusion of a launch or reentry site operator, an adjacent site operator, or other entity by agreement who can control an area of land.
- The term ''Service life'' would be changed to replace reference to a flight termination system component with any safety-critical system component.
- The last sentence in ''Sub-Vehicle Point'' and ''Uprange'' would be

removed because these sentences are unnecessary.

• ''Tracking Icon'' would be modified to include autonomous flight safety systems.

• ''Data Loss Flight Time,'' ''Flight Safety Limit,'' and ''Gate'' would be changed as discussed earlier in this preamble.

In part 414, ''Safety Approval'' would be changed to ''Safety Element Approval,'' so that a part 414 approval is not confused with a proposed part 450 safety approval. Its meaning, however, would remain the same as discussed earlier in this preamble.

The definition of ''Maximum Probable Loss (MPL)'' in § 440.3 would be modified to include Neighboring Operations Personnel.

The definition of ''Anomaly'' would be removed from part 437 and added to § 401.5 with a revised meaning.

Definitions that would not be retained from part 417 are ''Command Destruct Systems,'' ''Conjunction on Launch,'' ''Destruct,'' ''Drag Impact Point,'' ''Dwell Time,'' ''Fail-Over,'' ''Family Performance Data,'' ''Flight Safety System,'' ''Flight Termination System,'' ''Inadvertent Separation Destruct System,'' ''In-Family,'' ''Launch Azimuth,'' ''Launch Crew,'' ''Launch Wait,'' ''Meets Intent Certification,'' ''Non-Operating Environment,'' ''Operating Life,'' ''Out-of-Family,'' ''Passive Component,'' ''Performance Specifications,'' ''Safe-Critical Computer System Function,'' ''Storage Life,'' and ''Waiver.'' These would no longer be a part of commercial space regulations because they have been replaced with different terms (*i.e.,* ''Conjunction on Launch'' and ''Launch Wait''), are already defined in § 401.5 (*i.e.,* ''Flight Safety System''), or are simply not used (all others).

This proposed rule would also remove from § 401.5, ''Human Space Flight Incident,'' ''Launch Accident,'' ''Launch Incident,'' ''Reentry Accident,'' and ''Reentry Incident.'' In addition, it would remove ''Launch Site Accident'' from § 420.5. These definitions would be removed because of the proposed changes in definitions related to mishaps. The proposed rule would also remove from § 401.5 ''Emergency Abort,'' because it is no longer in use, and ''Vehicle Safety Operations Personnel,'' because those personnel are referred to as ''Safety Critical Personnel'' in proposed part 450.

The FAA also proposes to remove the definition of ''Instantaneous Impact Point'' from § 420.5. This definition would be removed because a new definition with a modified meaning would be added to § 401.5.

2. Part 413—Application Procedures

i. § 413.1 Clarification of the Term ''Application''

The FAA proposes to modify § 413.1 to clarify the term ''application.'' Specifically, the FAA would add to § 413.1 that the term application means either an application in its entirety, or a portion of an application for incremental review and determination in accordance with § 450.33. This change is necessary to enable incremental review as discussed earlier.

ii. § 413.21 Denial of a License or Permit Application

The FAA proposes to correct the section heading of § 413.21 to reflect the content of the section, and also correct paragraph (c) of this section to reference both license and permit applications.

Section 413.21 applies to a license or permit application. However, the section heading and paragraph (c) of this section only reference ''license.'' To correct this oversight, the FAA proposes to revise the section heading to read, ''Denial of a license or permit application.'' In addition, the FAA proposes to remove the reference to ''license'' from paragraph (c) so that it would apply to both license and permit applications.

iii. ''Complete Enough'' and ''Sufficiently Complete''

The FAA proposes to change the term ''sufficiently complete'' in part 414 to ''complete enough,'' as used in § 413.11, because the two terms mean the same thing. That is, they both describe the point at which the FAA has determined it has sufficient information to accept an application and begin its evaluation to make findings regarding issuing a license or permit.

Section 413.11 uses ''complete enough'' to describe when the FAA will accept an application and begin its review for a launch license or permit. The original intent was to use the same term in other chapter III sections. However, the term ''sufficiently complete'' in §§ 414.15(a), 415.107(a), and 417.203(c) was never changed to ''complete enough.''

Therefore, the agency proposes to change the term ''sufficiently complete'' to ''complete enough'' for consistency and clarity. The proposed change would be made in part 414 and in proposed part 450, since parts 415 and 417 would be consolidated under this new part.

iv. Electronic Submission

This rule proposes to amend § 413.7(a)(3) to allow an applicant the option to submit its application by email as a link to a secure server, and remove the requirement that an application be in a format that cannot be altered.

In 2015, the FAA published the ''Electronic Applications for Licenses, Permits, and Safety Approvals'' rule.[216] In that rule, the FAA made the application process more flexible and efficient by providing an applicant with the option to submit applications to the FAA electronically, either via email or on an electronic storage device, rather than submitting a paper application. Specifically, § 413.7(a)(3) requires that an application made via email be submitted as an email attachment to *ASTApplications@faa.gov* in a format that cannot be altered. The FAA's intent was to allow applicants to transact with the agency electronically, in accordance with the Government Paperwork Elimination Act. However, since the rule published, the FAA has found that many of the files containing the necessary application materials are too large to be transmitted successfully by email. When this occurs, applicants have transmitted an email message with a File Transfer Program (FTP) link or a link to a digital repository where the materials can be downloaded by the FAA. The FAA has found this to be an acceptable means of submitting an application. Because the FAA proposes to amend application procedures in this rulemaking, the FAA also proposes to align the regulations with the current acceptable practice of allowing this form of electronic application submission. Accordingly, the FAA proposes to amend § 413.7(a)(3) to allow an applicant the option to submit its application by email as a link to a secure server.

Additionally, the 2015 rulemaking identified that in requiring a file format that could not be altered, the FAA would accept a PDF document or a read-only Word file. Because both of these file types can actually be modified, the FAA has found it is impossible to comply with the requirement in § 413.7(a)(3)(ii). However, the need for document and version control of applications still exists for accurate record keeping and to ensure that the application materials the FAA evaluates and enforces represent the final and accurate submission from the applicant and have not been altered in any way. As nearly every form of electronic file submitted could be altered in some way or another, the FAA proposes to replace the current § 413.7(a)(3)(ii) with a new

[216] *Electronic Applications for Licenses, Permits, and Safety Approvals,* Direct Final Rule. 80 FR 30147 (May 27, 2015).

requirement that an applicant's email submission would be required to identify each document appended to the email, including any that are included as an attachment or that are stored on a secure server. The FAA further proposes to include a new § 413.7(a)(3)(iii) which would require all electronic files be date stamped and include version control documentation. The replacement of § 413.7(a)(3)(ii) and the addition of § 413.7(a)(3)(iii) would further the FAA's intent to prevent any unrecognized alteration.

The proposed amendments to § 414.13(a)(3) would mirror the proposed text of § 413.7(a)(3). The FAA also proposes to remove § 414.11(a)(3) because those requirements would be addressed in the proposed text of § 414.13(a)(3). These changes would remove unactionable application requirements and replace them with regulations that align with current practice and practicable compliance.

The FAA also proposes to change the heading of part 413 from ''License Application Procedures'' to ''Application Procedures.'' The proposed heading change reflects the multiple application procedures under part 413, which includes launch and reentry licenses, launch and reentry site licenses, and experimental permits. The FAA proposes this title change to improve the regulatory clarity for future experimental permit applicants.

3. Part 414—Safety Element Approvals

As discussed earlier, the FAA proposes to change the part 414 term from ''safety approval'' to ''safety element approval'' to distinguish it from ''safety approval'' as used in parts 415, 431, and 435, and proposed part 450. Also, the FAA proposes to modify part 414 to enable applicants to request a safety element approval in conjunction with a license application as provided in proposed part 450.[217]

4. Part 420—License To Operate a Launch Site

As discussed earlier, the proposal would modify the environmental requirements in § 420.15 to match the environmental requirements in proposed § 450.47. Also, the proposal would remove the definitions of ''instantaneous impact point,'' ''launch site accident,'' and ''public'' from § 420.5, and allow alternate time frames in § 420.57. In addition, it would change the heading of § 420.59 from ''Launch Site Accident Investigation Plan'' to ''Mishap Plan,'' and modify the section as discussed earlier. Further, it would make a minor edit in § 420.51.

5. Part 433—License To Operate a Reentry Site

As discussed earlier, the proposal would modify the environmental requirements in §§ 433.7 and 433.9 to align them with the environmental requirements in proposed § 450.47.

6. Part 437—Experimental Permits

As discussed earlier, the FAA proposes to modify part 437 (Experimental Permits) in six ways. First, the proposal would remove the definition of ''anomaly'' from § 437.3 and include a modified version in § 401.5. Second, the proposal would modify the environmental requirements in § 437.21(b)(1) to match the environmental requirements proposed in § 450.47. Third, it would change the name of ''safety approval'' to ''safety element approval'' in § 437.21. Fourth, it would modify the mishap plan requirements in §§ 437.41 and 437.75. Fifth, it would change the requirements for collision avoidance to match proposed § 450.169. Sixth, it would allow for alternate time frames in § 437.89.

7. Part 440—Financial Responsibility

As discussed earlier, the FAA proposes to modify § 440.15 to allow for alternate time frames, and modify the definition of ''maximum probable loss'' in § 440.3 to align it with the new, proposed definition of ''neighboring operations personnel.''

IV. Regulatory Notices and Analyses

A. Regulatory Evaluation

Changes to Federal regulations must undergo several economic analyses. First, Executive Order 12866 and Executive Order 13563 direct that each federal agency shall propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs. Second, the Regulatory Flexibility Act of 1980 (Pub. L. 96–354) requires agencies to analyze the economic impact of regulatory changes on small entities. Third, the Trade Agreements Act (Pub. L. 96–39 as amended) prohibits agencies from setting standards that create unnecessary obstacles to the foreign commerce of the United States. In developing U.S. standards, the Trade Agreements Act requires agencies to consider international standards and, where appropriate, that they be the basis of U.S. standards. Fourth, the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4) requires agencies to prepare a written assessment of the costs, benefits, and other effects of proposed or final rules that include a Federal mandate likely to result in the expenditure by State, local, or tribal governments, in the aggregate, or by the private sector, of $100 million or more annually (adjusted for inflation with base year of 1995). The FAA has provided a more detailed Preliminary Regulatory Impact Analysis of the benefits and costs of this proposed rule in the docket of this rulemaking. This portion of the preamble summarizes this analysis.

In conducting these analyses, the FAA has determined that this proposed rule: (1) Has benefits that justify its costs, (2) is not an economically ''significant regulatory action'' as defined in section 3(f) of Executive Order 12866, (3) is ''significant'' as defined in DOT's Regulatory Policies and Procedures, (4) will have a significant economic impact on a substantial number of small entities, (5) will not create unnecessary obstacles to the foreign commerce of the United States, and (6) will not impose an unfunded mandate on state, local, or tribal governments, or on the private sector by exceeding the threshold identified earlier. These analyses are summarized below.

Baseline Problem and Statement of Need

The FAA is proposing this deregulatory action to comply with President Donald J. Trump's Space Policy Directive-2 (SPD–2) ''Streamlining Regulations on Commercial Use of Space.'' The directive instructed the Secretary of Transportation to publish for notice and comment, proposed rules rescinding or revising the launch and reentry licensing regulations. Section 2 of SPD–2 charged the Department of Transportation with revising regulations to require a single license for all types of commercial space flight operations and replace prescriptive requirements with performance-based criteria. The subject proposed rule would implement this section of SPD–2.

The FAA's existing regulations have been criticized as overly-prescriptive, lacking sufficient clarity, outdated, and inconsistent with the requirements of other Government agencies. The regulations for ELV launches in parts 415 and 417 have proven to be too prescriptive and one-size-fits-all. The requirements of these parts were written in a very detailed fashion, which has caused some sections to become outdated or obsolete. In contrast, the regulations for RLV launches have proven to be too general, lacking

[217] Discussion on safety element approval changes to part 414 can be found in the Process Improvements section A portion of this preamble.

regulatory clarity. For example, part 431 does not contain specificity regarding the qualification of flight safety systems, acceptable methods for flight safety analysis, and ground safety requirements.

The purpose of the proposed rule is to streamline and simplify the licensing of launch and reentry operations by relying on performance-based regulations rather than prescriptive regulations. This action would consolidate and revise multiple commercial space launch and reentry regulations addressing licensing into a single regulatory part that states safety objectives to be achieved for the launch of suborbital and orbital expendable and reusable launch vehicles, and the reentry of reentry vehicles. This action would also enable flexible timeframes, remove unnecessarily burdensome ground safety regulations, redefine when launch begins to allow specified pre-flight operations prior to license approval, and allow applicants to seek a license to launch from multiple sites. This proposal is necessary to reduce the need to file and process waivers, improve clarity of the regulations, and relieve administrative and cost burdens on industry and the FAA. The intended effect of this action is to make commercial space transportation regulations more efficient and effective, while maintaining public safety.

Since the last comprehensive update to the regulations in 2006, the differences between ELVs and RLVs have blurred. Vehicles that utilize traditional flight safety systems now are partially reusable. For example, the Falcon 9 first stage, launched by Space Exploration Technologies Corp. (SpaceX), routinely returns to the launch site or lands on a barge and other operators are developing launch vehicles with similar capabilities. Although the reuse of safety critical systems or components can have public safety implications, labeling a launch vehicle as expendable or reusable has not shown to impact the primary approach necessary to protect public safety, certainly not to the extent suggested in the differences between part 431 and parts 415 and 417.

This deregulatory action would consolidate and revise multiple commercial space regulatory parts to apply a single set of licensing and safety regulations across several types of operations and vehicles. It would also replace many prescriptive regulations with performance-based regulations, giving industry greater flexibility to develop a means of compliance that maximizes their business objectives. This proposed rule would result in net cost savings for industry and enable future innovation in U.S. commercial space transportation.

Affected Operators and Launches

At the time of writing based on FAA license data, the FAA estimates this proposed rule would affect 12 operators that have an active license or permit to conduct launch or reentry operations. In addition, the FAA estimates this proposed rule would affect approximately 276 launches over the next 5 years based on actual launch and reentry numbers and forecasted numbers.[218] The FAA anticipates that the proposed rule would reduce the costs of current and future launch operations by removing current prescriptive requirements that are often burdensome to meet or require a waiver. The FAA expects these changes would lead to more efficient launch operations and have a positive effect on expanding the number of future launch and reentry operations.

Summary of Impacts

Over a 5-year period of analysis, this proposed rule would result in net present value cost savings to industry of about $19 million using a 7% discount rate or about $21 million using a 3% discount rate, with annualized net cost savings to industry of about $4.6 million using either discount rate. This proposed rule would also result in net present value savings for FAA of about $0.8 million using a 7% discount rate or about $1 million using a 3% discount rate, with annualized net cost savings to FAA of about $0.2 million using either discount rate.

The largest quantified cost savings for industry would result from eliminating or relaxing requirements for a flight safety system on some launches (about $11 million in present value savings over 5 years at a discount rate of 7% or about $12 million at a discount rate of 3%) and from reducing the number of personnel that would have to be evacuated from neighboring launch sites (about $8 million in present value savings over 5 years at a discount rate of 7% or about $9 million at a discount rate of 3%). These cost savings are described in more detail below.

The FAA proposes to move from prescriptive flight safety system requirements to performance-based requirements. As a result, the proposed rule would not require all launch vehicles to have a full flight safety system. Launch vehicles that have a very low probability of multiple casualties even if vehicle control fails would not be required to have a flight safety system. In addition, vehicles that have moderately low probability of casualty even if vehicle control fails would not be required to have robust flight safety systems.[219] These performance-based requirements would reduce costs for some vehicle operators, especially for small vehicles or those operating in remote locations.

The proposed rule would provide a new definition of neighboring operations personnel and establish new criteria for neighboring launch site personnel for the purposes of risk and financial responsibility. The change would allow affected operators to potentially reduce the number of personnel that have to evacuate and enable more concurrent operations by accepting a small safety risk tradeoff. The FAA has monetized the value of this small increased safety risk as summarized in the following tables. The FAA estimates the present value of these small increased safety risks to be about $1.4 million discounted at 7% or about $1.5 discounted at 3% over the five years.

The FAA estimates some small costs to industry that would assist both industry and the FAA in the implementation of this proposed rule, such as providing information to the FAA that other agencies frequently request or performing one-time updates of flight safety limit analyses and ground hazard analyses that would be used to determine performance-based means of compliance that provide future savings. In addition, there may be additional costs for the modification of existing licenses to benefit from the cost saving provisions of this proposed rule. The FAA would also incur small costs for payload review, ground hazard analysis, and the review of modifications to existing licenses.

The following table summarizes total quantified savings, costs, and net impacts.

[218] See the Preliminary Regulatory Impact Analysis of this proposed rule in the docket for more information. The FAA Office of Commercial Space Transportation derived the launches affected by this proposed rule for a 5-year period of analysis due to the rapidly changing environment of commercial space transportation.

[219] See discussion in the preamble regarding being compliant with the flight safety systems of part 417.

SUMMARY OF TOTAL 5-YEAR QUANTIFIED SAVINGS, COSTS AND NET IMPACTS

[Presented in thousands of dollars]

Impact	Industry present value (7%)	Industry present value (3%)	FAA present value (7%)	FAA present value (3%)
Cost Savings	$19,386.1	$21,844.5	$1,045.7	$1,208.9
Costs	−542.6	−569.5	−222.3	−237.0
Net Cost Savings	18,843.5	21,275.0	823.4	971.8
Annualized Net Cost Savings	4,595.7	4,645.5	200.8	212.2
Increased Safety Risks	−1,370.2	−1,540.6	.....	.....
Net Cost Savings *less* Increased Safety Risks	17,473.3	19,734.4	823.4	971.8
Annualized Net Cost Savings less Increased Safety Risks	4,261.6	4,309.1	200.8	212.2

Table notes: The sum of individual items may not equal totals due to rounding. Negative signs are used to indicate costs and increased safety risks in this table. Present value estimates provided at 7% and 3% per OMB guidance.

The following table summarizes quantified impacts by provision category.

SUMMARY OF 5-YEAR QUANTIFIED SAVINGS, COSTS AND NET IMPACTS BY PROVISIONS

[Presented in thousands of dollars]

Provision category/impact	Industry present value (7%)	Industry present value (3%)	FAA present value (7%)	FAA present value (3%)
Waiver Avoidance:				
—Definition of Launch	$32.8	$36.7	$10.3	$11.5
—Waterborne Vessel Hazard Areas	65.6	73.3	20.5	22.9
—Waiver for 48 Hour Readiness	41.0	45.8	12,8	14.3
System Safety Program—Safety Official	39.1	43.7	45.7	51.0
Duration of a Vehicle License	50.6	56.5	104.3	116.5
Readiness—Elimination of pre-launch meeting 15 days prior	709.9	799.0	127.7	143.6
Flight Safety System—Not required for all launches	10,612.6	11,981.3	572.5	679.2
Flight Safety Analysis no longer required for hybrids	22.1	25.0	2.8	3.2
Neighboring Operations *	7,698.9	8,656.7	.....	.....
Ground Hazard Analysis	113.3	126.6	149.2	166.6
Total Cost Savings	19,386.1	21,844.5	1,045.7	1,208.9
Payload Review and Determination	−45.6	−51.2	−46.4	−52.2
Flight Safety Limit Analysis	−157.7	−163.8	.....	.....
Ground Hazard Analysis	−24.0	−26.8	−27.2	−30.4
Modification Costs for Existing Licenses	−315.4	−327.6	−148.7	−154.5
Total Costs	−542.6	−569.5	−222.3	−237.0
Net Cost Savings	18,843.5	21,275.0	823.4	971.8
Annualized Net cost Savings	4,595.7	4,645.5	200.8	212.2
Increased Safety Risks: Neighboring Operations *	−1,370.2	−1,540.6	.....	.....
Net Cost Savings *less* Increased Safety Risks	17,473.3	19,734.4	823.4	971.8
Annualized Net Cost savings Less Increased Safety Risks	4,261.6	4,309.1	200.8	212.2

* Changes to *Neighboring Operations* requirements result in net savings less increased safety risks.

Table notes: The sum of individual items may not equal totals due to rounding. Negative signs are used to indicate costs and increased safety risks in this table. Present value estimates provided at 3% and 7% per OMB guidance.

The FAA also expects industry will gain additional unquantified savings and benefits from the proposed rule, since it provides flexibility and scalability through performance-based requirements that would reduce the future cost of innovation and improve the efficiency and productivity of U.S. commercial space transportation.

The following table summarizes some of the proposed changes that would result unquantified savings.

UNQUANTIFIED SAVINGS

Change	Savings
Time Frames	The proposal would revise time frames in parts 404, 413, 414, 415, 417, 420, 431, 437, and 440 that may be burdensome for some operators. This would increase flexibility by allowing an operator the option to propose alternative time frames that better suit their operations. Eligible time frames include preflight and post-flight reporting among others listed in proposed *Appendix A to Part 404—Alternative Time Frames.*
Safety Element Approval	The proposal would remove the requirement in part 414 to *publish* in the **Federal Register** the criteria upon which safety element approvals were based. The purpose of this notification requirement was to make clear the criteria and standards the FAA used to assess a safety element, particularly when no clear regulatory requirement existed and there could be other potential users of the safety approval. However, the FAA has found that this requirement is unnecessary, and has potentially discouraged applications for safety element approvals due to concerns that propriety data may be disclosed. FAA anticipates that removing this requirement will lead to increased use of safety element approvals, reducing industry burden and potentially improving safety.
Mishaps	The proposal would provide the following mishap-related enhancements, which FAA expects to better tailor mishap responses. • Replace current part 400 mishap related definitions with a consolidated mishap classification system (streamlines and reduces confusion). • Consolidate existing part 400 mishap/accident investigation and emergency response plan requirements into a single part (streamlines and reduces confusion). • Exempt pre-coordinated test-induced property damage from being a mishap (removes need to consider test-induced property damages from mishap requirements and likely results in fewer investigations of minor mishaps). • This proposal also eliminates the small $25,000 monetary threshold from the current mishap and accident investigation requirements potentially reducing the number of mishaps being investigated that do not pose a threat to public safety. A minor damage that does not pose a threat to public safety can easily exceed the $25,000 monetary threshold, triggering potentially costly and burdensome notification, reporting, and investigation requirements.
Toxics	The proposal would replace part 417 toxic release hazard analysis requirements with performance-based regulations that would provide flexibility for operators to comply with the required risk criteria in varied and innovative ways relative to their operations.
Lightning protection requirement.	The proposal would remove appendix G to part 417, Natural and Triggered Lightning Flight Commit Criteria, and replace it with the performance-based requirements. The current requirements are outdated, inflexible, overly conservative, and not explicitly applicable to RLVs and RVs. The proposed revision would provide an operator with more flexibility, and allow it to take into account the vehicle's mission profile when determining how to mitigate the direct and indirect effects of a lightning discharge.

The FAA intends to update its analysis with additional information and data identified during the comment period to better assess the impacts of this deregulatory action. Estimates may change for the final rule as a result.

The FAA invites comments on the benefits, savings, or costs of this proposed rule. Send comments by any of the methods identified under Addresses in this proposed rule. Specifically, the FAA requests information and data that can be used to quantify the additional savings of this proposed rule. Please provide references and sources for information and data.

B. Regulatory Flexibility Determination

The Regulatory Flexibility Act of 1980 (Pub. L. 96–354) (RFA) establishes ''as a principle of regulatory issuance that agencies shall endeavor, consistent with the objectives of the rule and of applicable statutes, to fit regulatory and informational requirements to the scale of the businesses, organizations, and governmental jurisdictions subject to regulation. To achieve this principle, agencies are required to solicit and consider flexible regulatory proposals and to explain the rationale for their actions to assure that such proposals are given serious consideration.'' The RFA covers a wide-range of small entities, including small businesses, not-for-profit organizations, and small governmental jurisdictions.

Agencies must perform a review to determine whether a rule will have a significant economic impact on a substantial number of small entities. If the agency determines that it will, the agency must prepare a regulatory flexibility analysis as described in the RFA.

Under Section 603(b) of the RFA, the initial regulatory flexibility analysis for a proposed rule must:

- Describe reasons the agency is considering the action;
- State the legal basis and objectives;
- Describe the recordkeeping and other compliance requirements;
- State all federal rules that may duplicate, overlap, or conflict;
- Describe an estimated number of small entities impacted; and
- Describe alternatives considered.

1. Description of Reasons the Agency Is Considering the Action

The Chair of the National Space Council, the Vice President, directed the Secretaries of Transportation and Commerce, and the Director of the Office of Management and Budget, to conduct a review of the U.S. regulatory framework for commercial space activities and report back within 45 days with a plan to remove barriers to commercial space enterprises.

The Council approved four recommendations, including the Department of Transportation's recommendation that the launch and reentry regulations should be reformed into a consolidated, performance-based licensing regime.

Codifying the recommendations of the Council, SPD–2 was issued on May 24, 2018. SPD–2 instructed the Secretary of Transportation to publish for notice and comment proposed rules rescinding or revising the launch and reentry licensing regulations, no later than February 1, 2019. SPD–2 charged the Department with revising the regulations such that they would require a single license for all types of commercial space flight operations and replace prescriptive requirements with performance-based criteria. The current action is complying with this recommendation.

Current regulations setting forth procedures and requirements for commercial space transportation licensing were based largely on the distinction between expendable or reusable launch vehicles. Specifically, 14 CFR parts 415 and 417 address the launch of expendable launch vehicles, part 431 addresses the launch and

reentry of reusable launch vehicles, and part 435 addresses the reentry of reentry vehicles.

The regulations in parts 415 and 417 are based on the Federal launch range standards developed in the 1990s. Parts 431 and 435 are primarily process-based, relying on a license applicant to derive safety requirements through a ''system safety'' process. While these regulations satisfied the need of the commercial launch industry at the time they were issued, the industry has changed and continues to evolve, thus rendering the current regulatory structure cumbersome and outdated.

2. Statement of the Legal Basis and Objectives

The Commercial Space Launch Act of 1984, as amended and re-codified at 51 U.S.C. 50901–50923 (the Act), authorizes the Department of Transportation, and the FAA through delegation, to oversee, license, and regulate commercial launch and reentry activities, and the operation of launch and reentry sites as carried out by U.S. citizens or within the United States. Section 50905 directs the FAA to exercise this responsibility consistent with public health and safety, safety of property, and the national security and foreign policy interests of the United States. The FAA is authorized to regulate only to the extent necessary to protect the public health and safety, safety of property, and national security and foreign policy interests of the United States. In addition, section 50903 requires that the FAA encourage, facilitate, and promote commercial space launches and reentries by the private sector.

If adopted as proposed, this rulemaking would streamline and increase flexibility in the FAA's commercial space regulations. This action would consolidate and revise multiple regulatory parts to apply a single set of licensing and safety regulations across several types of operations and vehicles. It would also replace many prescriptive regulations with performance-based rules, giving industry greater flexibility to develop means of compliance that maximize their business objectives while maintaining an equivalent level of safety to the agency's current regulations. Because this rulemaking would amend the FAA's launch and reentry requirements, it falls under the authority delegated by the Act.

3. Description of the Recordkeeping and Other Compliance Requirements

The FAA is not proposing any substantive changes to the requirements specified below. However, the agency is proposing to consolidate these requirements into a new, proposed part 450 (Launch and Reentry License Requirements); clarify that the consolidated requirements apply to any licensed launch or reentry; and make other minor, clarifying edits. The following is a summary of the proposed changes:

i. Public Safety Responsibility and Compliance With License

The FAA would consolidate the public safety responsibility requirements in current §§ 417.7 and 431.71(a) into proposed § 450.201, Public Safety Responsibility. Also, the FAA would move the compliance requirement in current § 431.71(b) to its own section, proposed § 450.203 (Compliance with License). Although the location of these requirements would change, the requirements themselves would not change.

Therefore, proposed § 450.201 would provide that a licensee is responsible for ensuring public safety and safety of property during the conduct of a licensed launch or reentry. And proposed § 450.203 would require that a licensee conduct a licensed launch or reentry in accordance with representations made in its license application, the requirements of part 450, subparts C and D, and the terms and conditions contained in the license. A licensee's failure to act in accordance with these items would be sufficient basis to revoke a license, or some other appropriate enforcement action.

ii. Records.

The FAA would consolidate the current record requirements in §§ 417.15(a) and (b) and 431.77(a) and (b) into proposed § 450.219(a) and (b). However, the FAA would replace the term ''launch accident'' in paragraph (b) with ''class 1 or class 2 mishap.'' As discussed in more detail in the Part 401—Definitions section of this preamble, the FAA is proposing to replace current part 401 definitions involving ''accident,'' ''incident,'' and ''mishap'' with specified mishap classes.

As such, the proposed regulation would require a licensee to maintain, for 3 years, all records, data, and other material necessary to verify that a launch or reentry is conducted in accordance with representations contained in the licensee's application. The exception would be for a class 1 or class 2 mishap, where a licensee would be required to preserve all records related to the event. These records would be required to be retained until the completion of any Federal investigation and the FAA has notified the licensee that the records need not be retained. The licensee would be required to make all records required to be maintained under the regulations available to Federal officials for inspection and copying.

4. All Federal Rules That May Duplicate, Overlap, or Conflict

No other federal rules duplicate, overlap, or conflict with FAA's launch and reentry licensing requirements.

5. Description and an Estimated Number of Small Entities Impacted

The FAA has identified two potential small entities that this proposed rule would impact, Vector Launch, Inc. and Generation Orbit. Both operators employ fewer than 1,500 people and both were in pre-application consultation to launch under parts 415 and 417 at the time of this writing.[220] These two companies are the only small entities identified in this analysis that may be directly affected by this proposed rule.

6. Alternatives Considered

The FAA considered three alternatives to the proposed rule.

i. No Change to Current Regulations

This alternative was not chosen because the current regulations are outdated, prescriptive, and do not adequately reflect industry current practices or technology development. The inefficiency of the licensing process due to current regulations risks stifling innovation and growth of the industry, especially for small operators.

ii. Propose a More Process-Based Regulatory Approach

With this alternative, the FAA would propose less detailed regulations that would rely primarily on the outcome of an operator's system safety process to protect public safety. This alternative was not chosen because it would lack regulatory clarity without adding any additional flexibility for a launch or reentry operator which may be more burdensome to small operators compared to large operators.

iii. Propose a Defined Modular Application Process

With this alternative, the FAA would propose similar safety requirements but would add a more defined incremental

[220] The FAA uses the current Small Business Administration size standard of 1,500 employees for passenger and freight air transportation. This information is found in *https://www.sba.gov/sites/default/files/files/Size_Standards_Table_2017.pdf.*

or modular application process. The current proposal enables an incremental application process, but does not define one with explicit modules and time frames. This alternative was not chosen because the FAA has no experience with an incremental or modular application process with which to base a proposal. In addition, a more defined incremental or modular application process may be less flexible and scalable and therefore more burdensome to small operators.

The FAA expects this proposed rule would provide regulatory relief to small entities from current prescriptive requirements and result in net savings.

As discussed previously in this section, the FAA identified two possible small entities that would be affected by this proposed rule but they are in the pre-application stage for potential ELV and RLV launches and we have little information on how they may comply with existing or proposed requirements. As these entities have not begun operations, we do not have estimates of the costs savings or costs that would reliably apply. However, the following are some estimates of per entity cost savings and costs based on data representing existing ELV and RLV operators. We note that some of the estimated savings and costs of this proposed rule may not apply to these entities.

Cost Savings

i. Readiness—Elimination of Pre-Launch Meeting 15 Days Prior (§ 450.155)

ELV operators might save $4,600 per avoided launch readiness meeting, however this assumes the average number of people at each meeting would be 25 and this might not apply to a small business.

ii. Flight Safety System—Not Required for All Launches (§ 450.145)

For launches where an FSS would not be required under the proposal, RLV operators might save $195,000 per launch vehicle for a vehicle using an existing design. An ELV operator might save $680,000 per launch. Both ELV and RLV operators might save an estimated $1.3 million for new vehicle designs by not having to incur all the research, design, testing, materials and installation costs for an FSS.

iii. Ground Hazard Analysis (§ 450.185)

An ELV operator might save $28,000 per application by not having to do a ground hazard analysis under this proposal.

Costs

i. Payload Review and Determination (§ 450.43)

The proposed rule could cause small operators to incur about $204 more per launch than due to additional payload review and determination costs.

ii. Ground Hazard Analysis (§ 450.185)

RLV applicants might incur about $3,000 more per application due to having to perform ground hazard analyses under the proposal.

The FAA invites comments on this initial regulatory flexibility analysis for the proposed rule. Send comments by any of the methods identified under Addresses in this proposed rule. Specifically, the FAA requests information and data that can be used to quantify savings and costs to small operators directly affected by this proposed rule. Please provide references and sources for information and data.

C. International Trade Impact Assessment

The Trade Agreements Act of 1979 (Pub. L. 96–39), as amended by the Uruguay Round Agreements Act (Pub. L. 103–465), prohibits federal agencies from establishing standards or engaging in related activities that create unnecessary obstacles to the foreign commerce of the United States. Pursuant to these Acts, the establishment of standards is not considered an unnecessary obstacle to the foreign commerce of the United States, so long as the standard has a legitimate domestic objective, such as the protection of safety, and does not operate in a manner that excludes imports that meet this objective. The statute also requires consideration of international standards and, where appropriate, that they be the basis for U.S. standards. The FAA has assessed the potential effect of this proposed rule and determined that it will not create unnecessary obstacles to the foreign commerce of the United States.

D. Unfunded Mandates Assessment

Title II of the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4) requires each federal agency to prepare a written statement assessing the effects of any Federal mandate in a proposed or final agency rule that may result in an expenditure of $100 million or more (in 1995 dollars) in any one year by State, local, and tribal governments, in the aggregate, or by the private sector; such a mandate is deemed to be a ''significant regulatory action.'' The threshold after adjustment for inflation is $150 million using the most current annual (2017) Implicit Price Deflator for Gross Domestic Product from the U.S. Bureau of Economic Analysis. This proposed rule does not contain such a mandate; therefore, the requirements of Title II of the Act do not apply.

E. Paperwork Reduction Act

The Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)) requires that the FAA consider the impact of paperwork and other information collection burdens imposed on the public. According to the 1995 amendments to the Paperwork Reduction Act (5 CFR 1320.8(b)(2)(vi)), an agency may not collect or sponsor the collection of information, nor may it impose an information collection requirement unless it displays a currently valid Office of Management and Budget (OMB) control number.

This action contains the following proposed consolidation of two existing information collection requirements, previously approved under OMB Control Numbers 2120–0608 and 2120–0643, under a new OMB control number. As required by the Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)), the FAA will submit the proposed information collection requirements to OMB for its review. In addition, the FAA has published a separate notice of the proposed requirements for public comment, and has included the notice in the docket for this rulemaking. The notice includes instructions on how to submit comments specifically to the proposed information collection requirements. Additional details on assumptions and calculations used in this section are presented in the Preliminary Regulatory Impact Analysis available in the docket of this rulemaking. The following estimates are included in the total savings and costs summarized in the Regulatory Evaluation section and considered in the Regulatory Flexibility Determination section of this proposed rule.

Summary: The FAA proposes to consolidate under a new part 450, the requirements currently contained in parts 415 and 417 for the launch of an ELV, in part 431 for the launch and reentry of an RLV, and in part 435 for the reentry of a reentry vehicle other than an RLV. The result of this effort would be streamlined regulations designed to be more flexible and scalable, with reduced timelines and minimal duplicative jurisdiction. The net result would be reduced paperwork for operators, although for some provisions paperwork would increase.

Use: The information would be used by FAA to evaluate the launch and

reentry operators' applications and to ensure safety.

Paperwork Impact to Industry

Respondents (including number of): The information collection would potentially affect 12 operators based on available data at the time of writing.

Annual Burden Estimate: Most changes in part 450 would result in a reduction in the paperwork burden. The paperwork associated with industry requesting waivers to certain provisions would be alleviated. Paperwork associated with industry requesting license modifications would also be reduced because an operator would not have to modify a license if the specific safety official were to change. In addition, with the extension of RLV licenses to up to five years, it is likely that fewer licenses would be issued, resulting in less paperwork. Due to the change in launch scope, the documentation accompanying a ground hazard analysis for ELV operators would be reduced.

Industry Cost Savings

The following table indicates the frequency of responses, the estimated time per response, the burdened wage rate, annual hours, and the cost for each cost saving provision. Response frequency is provided for the estimated number of waivers avoided (§ 450.3), estimated reduction in annual number of licenses modified (§ 450.103), estimated reduction in annual license renewals, and the estimated annual number of launches for which there would be a reduction in ground hazard analysis paperwork (§ 450.185). An estimated time for each response is also indicated below, as are burdened hourly wage rates for the specific personnel associated with each provision and annual hours and total cost savings.

INDUSTRY PAPERWORK COST SAVINGS

Description	Response frequency	Estimated time per response (hours)	Industry wage rate	Annual hours	Cost savings
Waiver Avoidance (§ 450.3)	17	20	$100.03	340	$34,010
System Safety Program—Safety Official (§ 450.103)	5.6	24	71.01	134.4	9,544
Duration of a Vehicle License (§ 450.7)	1.2	126.5	81.28	151.8	12,338
Ground Safety (§ 450.185)	1	340	81.28	340	27,634
Total Annual Savings				966	83,526

Cost savings includes paperwork related to waivers avoided due to the definition of launch, waterborne vessel protection, and removal of 48-hour readiness requirement.

Industry Paperwork Burden

Other changes would result in an increase in paperwork burden. The Payload Review and Determination section (§ 450.43) would add requirements for applicants to provide explosive potential of payload materials, alone and in combination with other materials on the payload for launches, as well as the appropriate transit time to final orbit for payloads with significant transit time after release from vehicle. The FAA is adding requirements for ground hazard analysis (§ 450.185) for RLV launches. The proposed rule would require RLVs to submit information to the FAA.

The table below indicates the frequency of responses, estimated time per response, burdened hourly wage rate, annual hours, and the cost for each provision that would add burden. Response frequency is provided for the estimated number of explosive potential and transit time calculations, and the estimated number of annual RLV applications which would require ground hazard analysis. An estimated time per response is also indicated below, as are burdened hourly wage rates for the specific personnel associated with each provision and annual hours and total cost savings.

INDUSTRY PAPERWORK BURDEN

Description	Response frequency	Estimated time per response (hours)	Industry wage rate	Annual hours	Cost
Explosive Potential (§ 450.43)	50	2	$81.28	100	$8,128
Transit time (§ 450.43)	50	0.5	81.28	25	2,032
Ground Safety (§ 450.185)	2	36	81.28	72	5,852
Total Cost Burden				197	16,012

The following table summarizes the industry total annual paperwork savings, total annual burden and the net annual savings.

INDUSTRY NET PAPERWORK SAVINGS

Description	Annual hours	Cost savings
Total Annual Savings	966	$83,526
Total Annual Burden	197	16,012

INDUSTRY NET PAPERWORK SAVINGS—Continued

Description	Annual hours	Cost savings
Net Annual Savings	769	67,514

Paperwork Burden to the Federal Government

The following tables summarizes FAA paperwork savings and burden. Similar to industry burden savings, the FAA would receive burden relief from waivers avoided due to the definition of launch, waterborne vessel protection, and removal of the 48-hour readiness requirement. See the Regulatory Impact Analysis available in the docket for more details on these estimates and calculations.

FAA PAPERWORK COST SAVINGS

Description	Estimated time per response (hours)	FAA wage rate	Annual hours	Cost savings
Waiver Avoidance (§ 450.3)	7.5	$83.26	127.5	$10,616
System Safety Program—Safety Official (§ 450.103)	24	82.88	134.4	11,139
Duration of a Vehicle License (§ 450.7)	253.5	83.61	304.2	25,434
Ground Safety (§ 450.185)	439	82.88	439	36,384
Total Annual Savings			1,005	83,573

FAA PAPERWORK BURDEN

Description	Estimated time per response (hours)	FAA wage rate	Annual hours	Cost savings
Explosive Potential (§ 450.43)	2.0	$82.88	100	$8,288
Transit time (§ 450.43)	0.5	82.88	25	2,072
Ground Safety (§ 450.185)	40	82.88	80	6,630
Total Annual Burden			205	16,990

FAA NET PAPERWORK SAVINGS

Description	Annual hours	Cost savings
Total Annual Savings	1,005	$83,573
Total Annual Burden	205	16,990
Net Annual Savings	800	66,583

Voluntary One-Time Modification of Existing Licenses

There are currently 24 active licenses held by 12 operators. Once the rule is in effect, existing licenses would be grandfathered under the current provisions, unless the licenses are modified. Operators may choose to modify their licenses to benefit from the cost saving provisions of the proposed rule—some operators may choose also to wait until they apply for a new license. The FAA assumes modifications of licenses would occur within the first year after the rule is effective. The FAA assumes it would take about one month for an industry aerospace engineer to develop documentation and analysis to apply for a modification of an existing license and about two weeks for an FAA employee to review an application for a modification of an existing license.

The following estimates assume all licenses would be modified. This overestimates paperwork costs, since some operators may not find it advantageous to modify their existing licenses. The FAA requests comment on these assumptions and the following estimates to apply for applications to modify existing licenses. Specifically, the FAA requests information if licenses holders would modify existing licenses for changes from this proposed rule or wait to apply for new licenses. The FAA may revise these assumptions and estimates for the final rule.

INDUSTRY BURDEN COSTS FOR APPLICATIONS TO MODIFY EXISTING LICENSES

Year	Wage rate	Time (one month of work hours) *	Cost per license	Number of licenses	Total burden hours	Total costs
1	$81.28	173	$14,061	24	4,152	$337,457

* One month of work hours based on the following calculations: 52 work weeks/year × 40 work hours/week = 2,080 work hours/year; and, 2,080 work hours/year ÷ 12 months = 173 work hours/month (rounded).

FAA BURDEN COSTS TO REVIEW APPLICATIONS TO MODIFY EXISTING LICENSES

Year	Wage rate	Hours (two weeks of work hours)	Cost per license	Number of licenses	Total burden hours	Total costs
1	$82.88	80	$6,630	24	1,920	$159,130

The agency is soliciting comments to—

(1) Evaluate whether the proposed information requirement is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;

(2) Evaluate the accuracy of the agency's estimate of the burden;

(3) Enhance the quality, utility, and clarity of the information to be collected; and

(4) Minimize the burden of collecting information on those who are to respond, including by using appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology.

Individuals and organizations may send comments on the information collection requirement to the address listed in the **ADDRESSES** section at the beginning of this preamble by June 14, 2019. Comments also should be submitted to the Office of Management and Budget, Office of Information and Regulatory Affairs, Attention: Desk Officer for FAA, New Executive Building, Room 10202, 725 17th Street NW, Washington, DC 20053.

F. International Compatibility

In keeping with U.S. obligations under the Convention on International Civil Aviation, it is FAA policy to conform to International Civil Aviation Organization (ICAO) Standards and Recommended Practices to the maximum extent practicable. The FAA has determined that there are no ICAO Standards and Recommended Practices that correspond to these proposed regulations.

G. Environmental Analysis

FAA Order 1050.1F identifies FAA actions that are categorically excluded from preparation of an environmental assessment or environmental impact statement under the National Environmental Policy Act in the absence of extraordinary circumstances. The FAA has determined this rulemaking action qualifies for the categorical exclusion identified in paragraph 5–6.6 and involves no extraordinary circumstances.

V. Executive Order Determinations

A. Executive Order 13132, Federalism

The FAA has analyzed this proposed rule under the principles and criteria of Executive Order 13132, Federalism. The agency has determined that this action would not have a substantial direct effect on the States, or the relationship between the Federal Government and the States, or on the distribution of power and responsibilities among the various levels of government, and, therefore, would not have Federalism implications.

B. Executive Order 13211, Regulations That Significantly Affect Energy Supply, Distribution, or Use

The FAA analyzed this proposed rule under Executive Order 13211, Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use (May 18, 2001). The agency has determined that it would not be a ''significant energy action'' under the executive order and would not be likely to have a significant adverse effect on the supply, distribution, or use of energy.

C. Executive Order 13609, International Cooperation

Executive Order 13609, Promoting International Regulatory Cooperation, promotes international regulatory cooperation to meet shared challenges involving health, safety, labor, security, environmental, and other issues and to reduce, eliminate, or prevent unnecessary differences in regulatory requirements. The FAA has analyzed this action under the policies and agency responsibilities of Executive Order 13609, and has determined that this action would have no effect on international regulatory cooperation.

D. Executive Order 13771, Reducing Regulation and Controlling Regulatory Costs

This proposed rule is expected to be a deregulatory action under Executive Order 13771 and would result in net cost savings for industry that would likely reduce the future cost of innovation in U.S. commercial space transportation. The Preliminary Regulatory Impact Analysis for the proposed rule provides additional information.

VI. Additional Information

A. Comments Invited

The FAA invites interested persons to participate in this rulemaking by submitting written comments, data, or views. Also, the agency invites comments regarding potential overlap with the regulatory requirements of other agencies not addressed in this proposed rule. In addition, the FAA invites comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit only one time.

The FAA will file in the docket all comments it receives, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, the FAA will consider all comments it receives on or before the

closing date for comments. The FAA will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. The agency may change this proposal in light of the comments it receives.

Proprietary or Confidential Business Information: Commenters should not file proprietary or confidential business information in the docket. Such information must be sent or delivered directly to the person identified in the **FOR FURTHER INFORMATION CONTACT** section of this document, and marked as proprietary or confidential. If submitting information on a disk or CD ROM, mark the outside of the disk or CD ROM, and identify electronically within the disk or CD ROM the specific information that is proprietary or confidential.

Under 14 CFR 11.35(b), if the FAA is aware of proprietary information filed with a comment, the agency does not place it in the docket. It is held in a separate file to which the public does not have access, and the FAA places a note in the docket that it has received it. If the FAA receives a request to examine or copy this information, it treats it as any other request under the Freedom of Information Act (5 U.S.C. 552). The FAA processes such a request under Department of Transportation procedures found in 49 CFR part 7.

B. Availability of Rulemaking Documents

An electronic copy of rulemaking documents may be obtained from the internet by—Searching the Federal eRulemaking Portal (*http://www.regulations.gov*);

Visiting the FAA's Regulations and Policies web page at *http://www.faa.gov/regulations_policies* or

Accessing the Government Printing Office's web page at *http://www.gpo.gov/fdsys/.*

Copies may also be obtained by sending a request to the Federal Aviation Administration, Office of Rulemaking, ARM–1, 800 Independence Avenue SW, Washington, DC 20591, or by calling (202) 267–9680. Commenters must identify the docket or notice number of this rulemaking.

All documents the FAA considered in developing this proposed rule, including economic analyses and technical reports, may be accessed from the internet through the Federal eRulemaking Portal referenced in item (1) above.

List of Subjects

14 CFR Part 401

Organization and functions (Government agencies), Space transportation and exploration.

14 CFR Part 404

Administrative practice and procedure, Space transportation and exploration.

14 CFR Part 413

Confidential business information, Space transportation and exploration.

14 CFR Part 414

Airspace, Aviation safety, Space transportation and exploration.

14 CFR Part 420

Environmental protection, Reporting and recordkeeping requirements, Space transportation and exploration.

14 CFR Part 437

Aircraft, Aviation safety, Reporting and recordkeeping requirements, Space transportation and exploration.

14 CFR Part 440

Indemnity payments, Insurance, Reporting and recordkeeping requirements, Space transportation and exploration.

14 CFR Part 450

Aircraft, Aviation safety, Environmental protection, Investigations, Reporting and recordkeeping requirements, Space transportation and exploration.

The Proposed Amendment

In consideration of the foregoing, the Federal Aviation Administration proposes to amend chapter III of title 14, Code of Federal Regulations as follows:

PART 401—ORGANIZATION AND DEFINITIONS

■ 1. The authority citation for part 401 continues to read as follows:

Authority: 51 U.S.C. 50101–50923.

■ 2. In § 401.5:
■ a. Add, in alphabetical order, the definitions of ''Anomaly,'' ''Casualty area,'' and ''Command control system'';
■ b. Revise the definition of ''Contingency abort'';
■ c. Add, in alphabetical order, the definitions of ''Control entity,'' ''Countdown,'' ''Critical asset,'' ''Crossrange,'' ''Data loss flight time,'' ''Deorbit,'' ''Disposal,'' ''Dose-response relationship,'' ''Downrange,'' and ''Effective casualty area'';
■ d. Remove the definition of ''Emergency abort'';
■ e. Add, in alphabetical order, the definition of ''Expected casualty,'' ''Explosive debris,'' ''Flight abort,'' ''Flight abort crew,'' ''Flight abort rules,'' ''Flight hazard area,'' and ''Flight safety limit'';
■ f. Revise the definition of ''Flight safety system'';
■ g. Add, in alphabetical order, the definitions of ''Gate'' and ''Hazard control'';
■ h. Remove the definition of ''Human space flight incident'';
■ i. Revise the definitions of ''Instantaneous impact point'' and ''Launch'';
■ j. Remove the definitions of ''Launch accident'' and ''Launch incident'';
■ k. Add, in alphabetical order, the definitions of ''Launch or reentry system,'' ''Launch window,'' ''Liftoff,'' and ''Limits of a useful mission'';
■ l. Revise the definition of ''Mishap'';
■ m. Add, in alphabetical order, the definitions of ''Mishap, Class 1,'' ''Mishap, Class 2,'' ''Mishap, Class 3'', ''Mishap, Class 4,'' ''Neighboring operations personnel,'' ''Normal flight,'' ''Normal trajectory,'' ''Operating environment,'' and ''Operation hazard'';
■ n. Revise the definition of ''Operator'';
■ o. Add, in alphabetical order, the definitions of ''Orbital insertion,'' ''Physical containment,'' ''Probability of casualty,'' and ''Public'';
■ p. Remove the definition of ''Public safety'';
■ q. Revise the definition of ''Reenter; reentry'';
■ r. Remove the definitions of ''Reentry accident'' and ''Reentry incident'';
■ s. Add, in alphabetical order, the definition of ''Reentry window'';
■ t. Revise the definition of ''Safety critical'';
■ u. Add, in alphabetical order, the definitions of ''Service life'' and ''Software function'';
■ v. Revise the definition of ''State and United States'';
■ w. Add, in alphabetical order, the definitions of ''Sub-vehicle point,'' ''System hazard,'' ''Toxic hazard area,'' ''Tracking icon,'' ''Uncontrolled area,'' ''Unguided suborbital launch vehicle,'' ''Uprange,'' and ''Vehicle response modes'';
■ x. Remove the definition of ''Vehicle safety operations personnel''; and
■ y. Add, in alphabetical order, the definitions of ''Wind weighting safety system'' and ''Window closure''.

The additions and revisions read as follows:

§ 401.5 Definitions.

* * * * *

Anomaly means any condition during licensed or permitted activity that

deviates from what is standard, normal, or expected, during the verification or operation of a system, subsystem, process, facility, or support equipment.

* * * * *

Casualty area means the area surrounding each potential debris or vehicle impact point where serious injuries, or worse, can occur.

Command control system means the portion of a flight safety system that includes all components needed to send a flight abort control signal to the on-board portion of a flight safety system.

Contingency abort means a flight abort with a landing at a planned location that has been designated in advance of vehicle flight.

Control entity means a person or device that can control another device or process.

Countdown means the timed sequence of events that must take place to initiate flight of a launch vehicle or reentry of a reentry vehicle.

* * * * *

Critical asset means an asset that is essential to the national interests of the United States. Critical assets include property, facilities, or infrastructure necessary to maintain national defense, or assured access to space for national priority missions.

Crossrange means the distance measured along a line whose direction is either 90 degrees clockwise (right crossrange) or counter-clockwise (left crossrange) to the projection of a vehicle's planned nominal velocity vector azimuth onto a horizontal plane tangent to the ellipsoidal Earth model at the vehicle's sub-vehicle point. The terms right crossrange and left crossrange may also be used to indicate direction.

Data loss flight time means the shortest elapsed thrusting or gliding time during which a vehicle flown with a flight safety system can move from its trajectory to a condition where it is possible for the vehicle to violate a flight safety limit.

Deorbit means the flight of a vehicle that begins with the final command to commit to a perigee below 70 nautical miles (approximately 130 kilometers), and ends when all vehicle components come to rest on the Earth.

Disposal means the return or attempt to return, purposefully, a launch vehicle stage or component, not including a reentry vehicle, from Earth orbit to Earth, in a controlled manner.

Dose-response relationship means a quantitative methodology used to assign a probability of casualty within a population group given exposure to a toxic chemical of known or predicted concentration and duration.

Downrange means the distance measured along a line whose direction is parallel to the projection of a vehicle's planned nominal velocity vector azimuth into a horizontal plane tangent to the ellipsoidal Earth model at the vehicle sub-vehicle point. The term downrange may also be used to indicate direction.

Effective casualty area means the aggregate casualty area of each piece of debris created by a vehicle failure at a particular point on its trajectory. The effective casualty area for each piece of debris is a modeling construct in which the area within which 100 percent of the population are assumed to be a casualty, and outside of which 100 percent of the population are assumed not to be a casualty.

* * * * *

Expected casualty means the mean number of casualties predicted to occur per flight operation if the operation were repeated many times.

* * * * *

Explosive debris means solid propellant fragments or other pieces of a vehicle or payload that result from breakup of the vehicle during flight and that explode upon impact with the Earth's surface and cause overpressure.

* * * * *

Flight abort means the process to limit or restrict the hazards to public health and safety, and the safety of property, presented by a launch vehicle or reentry vehicle, including any payload, while in flight by initiating and accomplishing a controlled ending to vehicle flight.

Flight abort crew means the personnel who make a flight abort decision.

Flight abort rules means the conditions under which a flight safety system must abort the flight to ensure compliance with public safety criteria.

* * * * *

Flight hazard area means any region of land, sea, or air that must be surveyed, publicized, controlled, or evacuated in order to protect public health and safety and the safety of property.

Flight safety limit means criteria to ensure that public safety is protected from the flight of a vehicle when a flight safety system functions properly.

Flight safety system means a system used to implement flight abort. A human can be a part of a flight safety system.

Gate means the portion of a flight safety limit boundary through which the tracking icon of a vehicle flown with a flight safety system may pass without flight abort, provided the flight remains within specified parameters.

Hazard control means a preventative measure or mitigation put in place for systems or operations to reduce the severity of a hazard or the likelihood of the hazard occurring.

* * * * *

Instantaneous impact point means a predicted impact point, following thrust termination of a vehicle.

Launch means to place or try to place a launch vehicle or reentry vehicle and any payload or human being from Earth in a suborbital trajectory, in Earth orbit in outer space, or otherwise in outer space, including activities involved in the preparation of a launch vehicle or payload for launch, when those activities take place at a launch site in the United States.

* * * * *

Launch or reentry system means the integrated set of subsystems, personnel, products, and processes that, when combined together, safely carries out a launch or reentry.

* * * * *

Launch window means a period of time during which the flight of a launch vehicle may be initiated.

Liftoff means any motion of the launch vehicle with intention to initiate flight.

Limits of a useful mission means the trajectory data or other parameters that describe the limits of a mission that can attain the primary objective, including flight azimuth limits.

Mishap means any event, or series of events associated with a licensed or permitted activity, that meets the criteria of a Class 1, 2, 3 or 4 mishap.

Mishap, Class 1 means any event resulting in one or more of the following:

(1) A fatality or serious injury (as defined in 49 CFR 830.2) as a result of licensed or permitted activity to any person who is not associated with the licensed or permitted activity, including ground activities at a launch or reentry site; or

(2) A fatality or serious injury to any space flight participant, crew, or government astronaut.

Mishap, Class 2 means any event, other than a Class 1 mishap, resulting in one or more of the following:

(1) A malfunction of a flight safety system or safety-critical system; or

(2) A failure of the licensee's or permittee's safety organization, safety operations, safety procedures; or

(3) High risk, as determined by the FAA, of causing a serious or fatal injury to any space flight participant, crew, government astronaut, or member of the public; or

(4) Substantial damage, as determined by the FAA, to property not associated with licensed or permitted activity.

Mishap, Class 3 means any unplanned event, other than a Class 1 or Class 2 mishap, resulting in one or more of the following:

(1) Permanent loss of a launch or reentry vehicle during licensed activity; or

(2) The impact of a licensed or permitted launch or reentry vehicle, its payload, or any component thereof outside the planned landing site or designated hazard area.

Mishap, Class 4 means an unplanned event, other than a Class 1, Class 2, or Class 3 mishap, resulting in one or more of the following:

(1) Permanent loss of a vehicle during permitted activity;

(2) Failure to achieve mission objectives; or

(3) Substantial damage, as determined by the FAA, to property associated with licensed or permitted activity.

Neighboring operations personnel means, as determined by the Federal or licensed launch or reentry site operator, those members of the public located within a launch or reentry site, or an adjacent launch or reentry site, who are not associated with a specific hazardous licensed or permitted operation currently being conducted but are required to perform safety, security, or critical tasks at the site and are notified of the operation.

* * * * *

Normal flight means the flight of a properly performing vehicle whose real-time vacuum instantaneous impact point does not deviate from the nominal vacuum instantaneous impact point by more than the sum of the wind effects and the three-sigma guidance and performance deviations in the uprange, downrange, left-crossrange, or right-crossrange directions.

Normal trajectory means a trajectory that describes normal flight.

Operating environment means an environment that a launch or reentry vehicle component will experience during its lifecycle. Operating environments include shock, vibration, thermal cycle, acceleration, humidity, and thermal vacuum.

Operation hazard means a hazard created by an operating environment or by an unsafe act.

* * * * *

Operator means a holder of a license or permit under 51 U.S.C. Subtitle V, chapter 509.

Orbital insertion means the point at which a vehicle achieves a minimum 70-nautical mile perigee based on a computation that accounts for drag.

* * * * *

Physical containment means a launch vehicle does not have sufficient energy for any hazards associated with its flight to reach the public or critical assets.

* * * * *

Probability of casualty means the likelihood that a person will suffer a serious injury or worse, including a fatal injury, due to all hazards from an operation at a specific location.

Public means, for a particular licensed or permitted launch or reentry, people and property that are not involved in supporting the launch or reentry and includes those people and property that may be located within the launch or reentry site, such as visitors, individuals providing goods or services not related to launch or reentry processing or flight, and any other operator and its personnel.

Reenter; reentry means to return or attempt to return, purposefully, a reentry vehicle and its payload or human being, if any, from Earth orbit or from outer space to Earth.

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Reentry window means a period of time during which the reentry of a reentry vehicle may be initiated.

* * * * *

Safety critical means essential to safe performance or operation. A safety-critical system, subsystem, component, condition, event, operation, process, or item, is one whose proper recognition, control, performance, or tolerance, is essential to ensuring public safety.

Service life means, for a safety-critical system component, the sum total of the component's storage life and operating life.

* * * * *

Software function means a collection of computer code that implements a requirement or performs an action. This includes firmware and operating systems.

* * * * *

State and United States means, when used in a geographical sense, the several States, the District of Columbia, the Commonwealth of Puerto Rico, American Samoa, the United States Virgin Islands, Guam, and any other commonwealth, territory, or possession of the United States.

Sub-vehicle point means the location on an ellipsoidal Earth model where the normal to the ellipsoid passes through the vehicle's center of gravity.

System hazard means a hazard associated with a system and generally exists even when no operation is occurring.

* * * * *

Toxic hazard area means a region on the Earth's surface where toxic concentrations and durations may be greater than approved toxic thresholds for acute casualty, in the event of a release during launch or reentry.

Tracking icon means the representation of a vehicle's instantaneous impact point, debris footprint, or other vehicle performance metric used during real-time tracking of the vehicle's flight.

Uncontrolled area is an area of land not controlled by a launch or reentry operator, a launch or reentry site operator, an adjacent site operator, or other entity by agreement.

Unguided suborbital launch vehicle means a suborbital rocket that does not contain active guidance or a directional control system.

* * * * *

Uprange means the distance measured along a line that is 180 degrees to the downrange direction.

* * * * *

Vehicle response modes means mutually exclusive scenarios that characterize foreseeable combinations of vehicle trajectory and debris generation.

* * * * *

Wind weighting safety system means equipment, procedures, analysis and personnel functions used to determine the launcher elevation and azimuth settings that correct for wind effects that an unguided suborbital launch vehicle will experience during flight.

Window closure means a period of time when launch or reentry is not permitted in order to avoid a collision with an object in orbit. A window closure may occur within a launch or reentry window, may delay the start of a window, or terminate a window early.

PART 404—REGULATIONS AND LICENSING REQUIREMENTS

■ 3. The authority citation for part 404 continues to read as follows:

Authority: 51 U.S.C. 50901–50923.

■ 4. Revise § 404.5 to read as follows:

§ 404.5 Filing a petition for waiver.

(a) A petition for waiver must be submitted at least 60 days before the proposed effective date of the waiver, unless the Administrator agrees to a different time frame in accordance with § 404.15.

(b) The petition for waiver must include:

(1) The specific section or sections of this chapter from which the petitioner seeks relief;

(2) The extent of the relief sought and the reason the relief is being sought;

(3) The reason why granting the request for relief is in the public interest and will not jeopardize the public health and safety, safety of property, and national security and foreign policy interests of the United States; and

(4) Any additional facts, views, and data available to the petitioner to support the waiver request.

■ 5. Add § 404.15 to read as follows:

§ 404.15 Alternative time frames.

(a) *General.* Unless otherwise approved by the Administrator, an applicant, a licensee, a permittee, or a safety element approval holder must meet the time frames set forth in this chapter.

(b) *Request to change a time frame.* A person may file a written request to the FAA to propose an alternative time frame to any of the time frames included in the sections listed in appendix A to this part. The request must be—

(1) Submitted no later than the specific time frame included in the regulation; and

(2) Emailed to *ASTApplications@faa.gov;* or

(3) Mailed to the Federal Aviation Administration, Associate Administrator for Commercial Space Transportation, Room 331, 800 Independence Avenue SW, Washington, DC 20591. Attention: Alternative Time Frame Request.

(c) *Administrator review.* The Administrator will review and make a decision or grant a request for an alternative time-frame as follows:

(1) The FAA will conduct its review on a case-by-case basis, taking into account the complexity of the request and whether it allows sufficient time for the FAA to conduct its review and make the requisite public health and safety, safety of property, and national security and foreign policy findings; and

(2) The FAA will provide its decision in writing.

■ 6. Add appendix A to part 404 the read as follows:

Appendix A to Part 404—Alternative Time Frames

A404.1 GENERAL

Alternative time frames. This appendix lists the sections and corresponding paragraphs in this chapter that provide the eligible time frames for an applicant, licensee, permittee or a safety element approval holder, as applicable, to request an alternative time frame.

TABLE A404.1—ELIGIBLE TIME FRAMES

49 CFR	Paragraphs
§ 404.5—Filing a petition for waiver	(a)
§ 413.23—License or permit renewal	(a)
§ 414.31—Safety element approval renewal	(a)
§ 420.57—Notifications	(d)
§ 437.89—Preflight reporting	(a), (b)
§ 440.15—Demonstration of compliance	(a)(1), (a)(2), (a)(3), (a)(4)
§ 450.169— Launch and Reentry Collision Avoidance Analysis Requirements	(f)(1)
§ 450.213—Preflight reporting	(b), (c), (d), (e)
§ 450.215—Post-flight reporting	(a)

PART 413—APPLICATION PROCEDURES

■ 7. The authority citation for part 413 continues to read as follows:

Authority: 51 U.S.C. 50901–50923.

■ 8. Revise the heading for part 413 to read as set forth above.

■ 9. Revise § 413.1 to read as follows:

§ 413.1 Scope of this part.

(a) This part explains how to apply for a license or experimental permit. These procedures apply to all applications for obtaining a license or permit, transferring a license, and renewing a license or permit. In this part, the term *application* means either an application in its entirety, or a portion of an application for incremental review and determination in accordance with § 450.33 of this chapter.

(b) Use the following table to locate specific requirements:

TABLE 1 TO PARAGRAPH (b)

Subject	Part
License to Operate a Launch Site	420
License to Operate a Reentry Site	433
Experimental Permits	437
Launch And Reentry License Requirements	450

■ 10. Amend § 413.7 by revising the section heading and paragraph (a)(3) to read as follows:

§ 413.7 Application submission.

(a) * * *

(3) For an application submitted by email, an applicant must send the application as an email attachment, or as a link to a secure server, to *ASTApplications@faa.gov.* The application and the email to which the application is attached or linked must also satisfy the following criteria:

(i) The email to which the application is attached or linked must be sent from an email address controlled by the person who signed the application or by an authorized representative of the applicant;

(ii) The email must identify each document that is included as an attachment or that is stored on a secure server; and

(iii) The electronic files must be date-stamped and have version control documentation.

* * * * *

■ 11. Amend § 413.11 by revising paragraph (a) to read as follows:

§ 413.11 Acceptance of an application.

* * * * *

(a) The FAA accepts the application and will initiate review; or

* * * * *

■ 12. Revise § 413.15 to read as follows:

§ 413.15 Review period.

(a) *Review period duration.* Unless otherwise specified in this chapter, the FAA reviews and makes a license or permit determination on an application within 180 days of receiving an accepted license application or within 120 days of receiving an accepted permit application. The FAA will establish the time frame for any incremental review and determination with an applicant on a case-by-case basis during pre-application consultation.

(b) *Review period tolled.* If an accepted application does not provide sufficient information to continue or complete the reviews or evaluations required by this chapter for a license, permit, or incremental determination, or an issue exists that would affect a determination, the FAA notifies the applicant, in writing, and informs the applicant of any information required to complete the application. If the FAA cannot review an accepted application because of lack of information or for any other reason, the FAA will toll the review period until the FAA receives the information it needs or the applicant resolves the issue.

(c) *Notice.* Unless applying under incremental review and determination in accordance with § 450.33 of this chapter, if the FAA does not make a decision within 120 days of receiving an accepted license application or within 90 days of receiving an accepted permit application, the FAA informs the applicant, in writing, of any outstanding information needed to complete the review, or of any issues that would affect the decision.

■ 13. Amend § 413.21 by revising the section heading and paragraphs (b) and (c) to read as follows:

§ 413.21 Denial of a license or permit application.

* * * * *

(b) If the FAA has denied an application in its entirety, the applicant may either—

(1) Attempt to correct any deficiencies identified and ask the FAA to reconsider the revised application. The FAA has 60 days or the number of days remaining in the review period, whichever is greater, within which to reconsider the decision; or

(2) Request a hearing in accordance with part 406 of this chapter, for the purpose of showing why the application should not be denied.

(c) An applicant whose application is denied after reconsideration under paragraph (b)(1) of this section may request a hearing in accordance with paragraph (b)(2) of this section.

■ 14. Revise part 414 to read as follows:

PART 414—SAFETY ELEMENT APPROVALS

Sec.

Subpart A—General

414.1 Scope.
414.3 Definitions.
414.5 Applicability.
414.7 Eligibility.

Subpart B—Application Procedures

414.9 Pre-application consultation.
414.11 Application.
414.13 Application separate from a vehicle operator license application.
414.15 Application concurrent with vehicle operator license application.
414.17 Confidentiality.
414.19 Processing the initial application.
414.21 Maintaining the continued accuracy of the initial application.

Subpart C—Safety Element Approval Review and Issuance

414.23 Technical criteria for reviewing a safety element approval application.
414.25 Terms and conditions for issuing a safety element approval; duration of a safety element approval.
414.27 Maintaining the continued accuracy of the safety element approval application.
414.29 Safety element approval records.
414.31 Safety element approval renewal.
414.33 Safety element approval transfer.
414.35 Monitoring compliance with the terms and conditions of a safety element approval.
414.37 Modification, suspension, or revocation of a safety element approval.
414.39 [Reserved]

Subpart D—Appeal Procedures

414.41 Hearings in safety element approval actions.
414.43 Submissions; oral presentations in safety element approval actions.
414.45 Administrative law judge's recommended decision in safety element approval actions.

Authority: 51 U.S.C. 50901–50923.

Subpart A—General

§ 414.1 Scope.

This part establishes procedures for obtaining a safety element approval and renewing and transferring an existing safety element approval. Safety element approvals issued under this part may be used to support the application review for one or more vehicle operator license requests under other parts of this chapter.

§ 414.3 Definitions.

For purposes of this part the following definitions apply:

Safety element approval. A safety element approval is an FAA document containing the FAA determination that one or more of the safety elements listed in paragraphs (1) and (2) of this definition, when used or employed within a defined envelope, parameter, or situation, will not jeopardize public health and safety or safety of property. A safety element approval may be issued independent of a license, and it does not confer any authority to conduct activities for which a license is required under this chapter. A safety element approval does not relieve its holder of the duty to comply with all applicable requirements of law or regulation that may apply to the holder's activities.

(1) Launch vehicle, reentry vehicle, safety system, process, service, or any identified component thereof; or

(2) Qualified and trained personnel, performing a process or function related to licensed activities or vehicles.

Safety element. A safety element is any one of the items or persons (personnel) listed in paragraphs (1) and (2) of the definition of ''safety approval'' in this section.

§ 414.5 Applicability.

This part applies to an applicant that wants to obtain a safety element approval for any of the safety elements defined under this part and to persons granted a safety element approval under this part. Any person eligible under this part may apply to become the holder of a safety element approval.

§ 414.7 Eligibility.

(a) There is no citizenship requirement to obtain a safety element approval.

(b) You may be eligible for a safety element approval if you are—

(1) A designer, manufacturer, or operator of a launch or reentry vehicle or component thereof;

(2) The designer or developer of a safety system or process; or

(3) Personnel who perform safety critical functions in conducting a licensed launch or reentry.

(c) A safety element approval applicant must have sufficient knowledge and expertise to show that the design and operation of the safety element for which safety element approval is sought qualify for a safety element approval.

(d) Only the safety elements defined under this part are eligible for a safety element approval. The applicant must consult with the FAA before submitting an application. Unless the applicant or the FAA requests another form of consultation, consultation is oral discussion with the FAA about the

application process and the potential issues relevant to the FAA's safety element approval decision.

Subpart B—Application Procedures

§ 414.9 Pre-application consultation.

The applicant must consult with the FAA before submitting an application. Unless the applicant or the FAA requests another form of consultation, consultation is oral discussion with the FAA about the application process and the potential issues relevant to the FAA's safety approval decision.

§ 414.11 Application.

An applicant may submit an application for a safety element approval in one of two ways:

(a) Separate from a vehicle operator license application in accordance with § 414.13; or

(b) Concurrent with a vehicle operator license application in accordance with § 414.15.

§ 414.13 Application separate from a vehicle operator license application.

(a) An applicant must make an application in writing and in English. The applicant must file the application with the Federal Aviation Administration either by paper, by use of physical electronic storage, or by email in the following manner:

(1) For an application submitted on paper, an applicant must send two copies of the application to the Federal Aviation Administration, Associate Administrator for Commercial Space Transportation, Room 331, 800 Independence Avenue SW, Washington, DC 20591. Attention: Application Review.

(2) For an application submitted by use of physical electronic storage, the applicant must either mail the application to the address specified in paragraph (a)(1) of this section or hand-deliver the application to an authorized FAA representative. The application and the physical electronic storage containing the application must also satisfy all of the following criteria:

(i) The application must include a cover letter that is printed on paper and signed by the person who signed the application or by an authorized representative of the applicant;

(ii) The cover letter must identify each document that is included on the physical electronic storage; and

(iii) The physical electronic storage must be in a format such that its contents cannot be altered.

(3) For an application submitted by email, an applicant must send the application as an email attachment, or as a link to a secure server, to *ASTApplications@faa.gov.* The application and the email to which the application is attached must also satisfy the following criteria:

(i) The email to which the application is attached must be sent from an email address controlled by the person who signed the application or by an authorized representative of the applicant; and

(ii) The email must identify each document that is included as an attachment or that is stored on a secure server; and

(iii) The electronic files must be date-stamped and have version control documentation.

(b) The application must identify the following basic information:

(1) Name and address of the applicant.

(2) Name, address, and telephone number of any person to whom inquiries and correspondence should be directed.

(3) Safety element as defined under this part for which the applicant seeks a safety element approval.

(c) The application must contain the following technical information:

(1) A Statement of Conformance letter, describing the specific criteria the applicant used to show the adequacy of the safety element for which a safety element approval is sought, and showing how the safety element complies with the specific criteria.

(2) The specific operating limits for which the safety element approval is sought.

(3) The following as applicable:

(i) Information and analyses required under this chapter that may be applicable to demonstrating safe performance of the safety element for which the safety element approval is sought.

(ii) Engineering design and analyses that show the adequacy of the proposed safety element for its intended use, such that the use in a licensed launch or reentry will not jeopardize public health or safety or the safety of property.

(iii) Relevant manufacturing processes.

(iv) Test and evaluation procedures.

(v) Test results.

(vi) Maintenance procedures.

(vii) Personnel qualifications and training procedures.

(d) The application must be legibly signed, dated, and certified as true, complete, and accurate by one of the following:

(1) For a corporation, an officer or other individual authorized to act for the corporation in licensing or safety element approval matters.

(2) For a partnership or a sole proprietorship, a general partner or proprietor, respectively.

(3) For a joint venture, association, or other entity, an officer or other individual duly authorized to act for the joint venture, association, or other entity in licensing matters.

(e) Failure to comply with any of the requirements set forth in this section is sufficient basis for denial of a safety element approval application.

§ 414.15 Application concurrent with vehicle operator license application.

(a) An applicant for a vehicle operator license may also identify one or more sections of its application for which it seeks to obtain a safety element approval concurrently with a license. An applicant applying for a safety element approval concurrently with a license must—

(1) Meet the applicable requirements of part 450 of this chapter;

(2) Provide the information required in § 414.13(b)(3) and (c)(2) and (3); and

(3) Specify the sections of the license application that support its application for a safety element approval.

(b) The scope of the safety element approval will be limited to what the application supports. The technical criteria for reviewing a safety element submitted as part of a vehicle operator license application are limited to the applicable requirements of part 450 of this chapter.

§ 414.17 Confidentiality.

(a) To ensure confidentiality of data or information in the application, the applicant must—

(1) Send a written request with the application that trade secrets or proprietary commercial or financial data be treated as confidential, and include in the request the specific time frame confidential treatment is required.

(2) Mark data or information that require confidentiality with an identifying legend, such as ''Proprietary Information,'' ''Proprietary Commercial Information,'' ''Trade Secret,'' or ''Confidential Treatment Requested.'' Where this marking proves impracticable, attach a cover sheet that contains the identifying legend to the data or information for which confidential treatment is sought.

(b) If the applicant requests confidential treatment for previously submitted data or information, the FAA will honor that request to the extent practicable in case of any prior distribution of the data or information.

(c) Data or information for which confidential treatment is requested or data or information that qualifies for

exemption under 5 U.S.C. 552(b)(4) will not be disclosed to the public unless the Associate Administrator determines that withholding the data or information is contrary to the public or national interest.

§ 414.19 Processing the initial application.

(a) The FAA will initially screen an application to determine if the application is complete enough for the FAA to start its review.

(b) After completing the initial screening, the FAA will inform the applicant in writing of one of the following:

(1) The FAA accepts the application and will begin the reviews or evaluations required for a safety element approval determination under this part.

(2) The FAA rejects the application because it is incomplete or indefinite making initiation of the reviews or evaluations required for a safety element approval determination under this part inappropriate.

(c) The written notice will state the reason(s) for rejection and corrective actions necessary for the application to be accepted. The FAA may return a rejected application to the applicant or may hold it until the applicant provides more information.

(d) The applicant may withdraw, amend, or supplement an application any time before the FAA makes a final determination on the safety element approval application by making a written request to the Associate Administrator. If the applicant amends or supplements the initial application, the revised application must meet all the applicable requirements under this part.

§ 414.21 Maintaining the continued accuracy of the initial application.

The applicant is responsible for the continuing accuracy and completeness of information provided to the FAA as part of the safety element approval application. If at any time after submitting the application, circumstances occur that cause the information to no longer be accurate and complete in any material respect, the applicant must submit a written statement to the Associate Administrator explaining the circumstances and providing the new or corrected information. The revised application must meet all requirements under § 414.13 or § 414.15.

Subpart C—Safety Element Approval Review and Issuance

§ 414.23 Technical criteria for reviewing a safety element approval application.

The FAA will determine whether a safety element is eligible for and may be issued a safety approval. We will base our determination on performance-based criteria, against which we may assess the effect on public health and safety and on safety of property, in the following hierarchy:

(a) FAA or other appropriate Federal regulations.

(b) Government-developed or adopted standards.

(c) Industry consensus performance-based criteria or standard.

(d) Applicant-developed criteria. Applicant-developed criteria are performance standards customized by the manufacturer that intends to produce the system, system component, or part. The applicant-developed criteria must define—

(1) Design and minimum performance;

(2) Quality assurance system requirements;

(3) Production acceptance test specifications; and

(4) Continued operational safety monitoring system characteristics.

§ 414.25 Terms and conditions for issuing a safety element approval; duration of a safety approval.

(a) The FAA will issue a safety element approval to an applicant that meets all the requirements under this part.

(b) The scope of the safety element approval will be limited by the scope of the safety demonstration contained in the application on which the FAA based the decision to grant the safety element approval.

(c) The FAA will determine specific terms and conditions of a safety element approval individually, limiting the safety element approval to the scope for which it was approved. The terms and conditions will include reporting requirements tailored to the individual safety element approval.

(d) A safety element approval is valid for five years and may be renewed.

§ 414.27 Maintaining the continued accuracy of the safety element approval application.

(a) The holder of a safety element approval must ensure the continued accuracy and completeness of representations contained in the safety element approval application, on which the approval was issued, for the entire term of the safety element approval.

(b) If any representation contained in the application that is material to public health and safety or safety of property ceases to be accurate and complete, the safety element approval holder must prepare and submit a revised application according to § 414.13 or § 414.15. The safety element approval holder must point out any part of the safety element approval or the associated application that would be changed or affected by a proposed modification. The FAA will review and make a determination on the revised application under the terms of this part.

§ 414.29 Safety element approval records.

The holder of a safety element approval must maintain all records necessary to verify that the holder's activities are consistent with the representations contained in the application for which the approval was issued for the duration of the safety element approval plus one year.

§ 414.31 Safety element approval renewal.

(a) *Eligibility.* A holder of a safety element approval may apply to renew it by sending the FAA a written application at least 90 days before the expiration date of the approval, unless the Administrator agrees to a different time frame in accordance with § 404.15 of this chapter.

(b) *Application.* (1) A safety element approval renewal application must meet all the requirements under § 414.13 or § 414.15.

(2) The application may incorporate by reference information provided as part of the application for the expiring safety element approval or any modification to that approval.

(3) Any proposed changes in the conduct of a safety element for which the FAA has issued a safety element approval must be described and must include any added information necessary to support the fitness of the proposed changes to meet the criteria upon which the FAA evaluated the safety element approval application.

(c) *Review of application.* The FAA conducts the reviews required under this part to determine whether the safety element approval may be renewed. We may incorporate by reference any findings that are part of the record for the expiring safety element approval.

(d) *Grant of safety element approval renewal.* If the FAA makes a favorable safety element approval determination, the FAA issues an order that amends the expiration date of the safety element approval or issues a new safety element approval. The FAA may impose added or revised terms and conditions

necessary to protect public health and safety and the safety of property.

(e) *Written notice.* The FAA will provide written notice to the applicant of our determination on the safety element approval renewal request.

(f) *Denial of a safety element approval renewal.* If the FAA denies the renewal application, the applicant may correct any deficiency the FAA identified and request a reconsideration of the revised application. The applicant also has the right to appeal a denial as set forth in subpart D of this part.

§ 414.33 Safety element approval transfer.

(a) Only the FAA may approve a transfer of a safety element approval.

(b) Either the holder of a safety element approval or the prospective transferee may request a safety element approval transfer.

(c) Both the holder and prospective transferee must agree to the transfer.

(d) The person requesting the transfer must submit a safety element approval application according to § 414.13 or § 414.15, must meet the applicable requirements of this part, and may incorporate by reference relevant portions of the initial application.

(e) The FAA will approve a transfer of a safety element approval only after all the approvals and determinations required under this chapter for a safety element approval have been met. In conducting reviews and issuing approvals and determinations, the FAA may incorporate by reference any findings made part of the record to support the initial safety element approval determination. The FAA may modify the terms and conditions of a safety element approval to reflect any changes necessary because of a safety element approval transfer.

(f) The FAA will provide written notice to the person requesting the safety element approval transfer of our determination.

§ 414.35 Monitoring compliance with the terms and conditions of a safety element approval.

Each holder of a safety element approval must allow access by, and cooperate with, Federal officers or employees or other individuals authorized by the Associate Administrator to inspect manufacturing, production, testing, or assembly performed by a holder of a safety element approval or its contractor. The FAA may also inspect a safety element approval process or service, including training programs and personnel qualifications.

§ 414.37 Modification, suspension, or revocation of a safety element approval.

(a) *The safety element approval holder.* The safety element approval holder may submit an application to the FAA to modify the terms and conditions of the holder's safety element approval. The application must meet all the applicable requirements under this part. The FAA will review and make a determination on the application using the same procedures under this part applicable to an initial safety element approval application. If the FAA denies the request to modify a safety element approval, the holder may correct any deficiency the FAA identified and request reconsideration. The holder also has the right to appeal a denial as set forth in subpart D of this part.

(b) *The FAA.* If the FAA finds it is in the interest of public health and safety, safety of property, or if the safety element approval holder fails to comply with any applicable requirements of this part, any terms and conditions of the safety approval, or any other applicable requirement, the FAA may—

(1) Modify the terms and conditions of the safety element approval; or

(2) Suspend or revoke the safety element approval.

(c) *Effective date.* Unless otherwise stated by the FAA, any modification, suspension, or revocation of a safety element approval under paragraph (b) of this section—

(1) Takes effect immediately; and

(2) Continues in effect during any reconsideration or appeal of such action under this part.

(d) *Notification and Right to Appeal.* If the FAA determines it is necessary to modify, suspend, or revoke a safety element approval, we will notify the safety element approval holder in writing. If the holder disagrees with the FAA's determination, the holder may correct any deficiency the FAA identified and request a reconsideration of the determination. The applicant also has the right to appeal the determination as set forth in subpart D of this part.

§ 414.39 [Reserved]

Subpart D—Appeal Procedures

§ 414.41 Hearings in safety element approval actions.

(a) The FAA will give the safety element approval applicant or holder, as appropriate, written notice stating the reason for issuing a denial or for modifying, suspending, or revoking a safety element approval under this part.

(b) A safety element approval applicant or holder is entitled to a determination on the record after an opportunity for a hearing.

§ 414.43 Submissions; oral presentations in safety element approval actions.

(a) Determinations in safety element approval actions under this part will be made on the basis of written submissions unless the administrative law judge, on petition or on his or her own initiative, determines that an oral presentation is required.

(b) Submissions must include a detailed exposition of the evidence or arguments supporting the petition.

(c) Petitions must be filed as soon as practicable, but in no event more than 30 days after issuance of decision or finding under § 414.37.

§ 414.45 Administrative law judge's recommended decision in safety element approval actions.

(a) The Associate Administrator, who will make the final decision on the matter at issue, will review the recommended decision of the administrative law judge. The Associate Administrator will make such final decision within 30 days of issuance of the recommended decision.

(b) The authority and responsibility to review and decide rests solely with the Associate Administrator and may not be delegated.

PART 415 [REMOVE AND RESERVE]

■ 15. Remove and reserve part 415.

PART 417 [REMOVE AND RESERVE]

■ 16. Remove and reserve part 417.

PART 420—LICENSE TO OPERATE A LAUNCH SITE

■ 17. The authority citation for part 420 continues to read as follows:

Authority: 51 U.S.C. 50901–50923.

§ 420.5 [Amended]

■ 18. Amend § 420.5 by removing the definitions for ''Instantaneous impact point,'' ''Launch site accident,'' and ''Public.''

■ 19. Amend § 420.15 by revising paragraph (b) to read as follows:

§ 420.15 Information requirements.

* * * * *

(b) *Environmental.* The FAA is responsible for complying with the procedures and policies of the National Environmental Policy Act (NEPA) and other applicable environmental laws, regulations, and Executive Orders prior to issuing a launch site license. An applicant must provide the FAA with information needed to comply with such requirements. The FAA will

consider and document the potential environmental effects associated with issuing a launch site license.

(1) *Environmental Impact Statement or Environmental Assessment.* An applicant must—

(i) Prepare an Environmental Assessment with FAA oversight;

(ii) Assume financial responsibility for preparation of an Environmental Impact Statement by an FAA-selected and -managed consultant contractor; or

(iii) Submit a written re-evaluation of a previously submitted Environmental Assessment or Environmental Impact Statement when requested by the FAA.

(2) *Categorical exclusion.* An applicant may request a categorical exclusion determination from the FAA by submitting the request and supporting rationale.

(3) *Environmental information.* An application must include an approved FAA Environmental Assessment, Environmental Impact Statement, categorical exclusion determination, or written re-evaluation covering all planned licensed activities in compliance with NEPA and the Council on Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA.

* * * * *

■ 20. Revise § 420.51 to read as follows:

§ 420.51 Responsibilities—general.

A licensee must operate its launch site in accordance with the representations in its application.

■ 21. Amend § 420.57 by revising paragraph (d) to read as follows:

§ 420.57 Notifications.

* * * * *

(d) At least 2 days prior to flight of a launch vehicle, unless the Administrator agrees to a different time frame in accordance with § 404.15 of this chapter, the licensee must notify local officials and all owners of land adjacent to the launch site of the flight schedule.

■ 22. Revise § 420.59 to read as follows:

§ 420.59 Mishap plan.

(a) A licensee must submit a mishap response plan that meets the requirements of § 450.173 of this chapter.

(b) A launch site operator's mishap plan must also contain—

(1) Procedures for participating in an investigation of a launch mishap for launches launched from the launch site; and

(2) Require the licensee to cooperate with FAA or National Transportation Safety Board (NTSB) investigations of a mishap for launches launched from the launch site.

(c) Emergency response and investigation procedures developed in accordance with 29 CFR 1910.119 and 40 CFR part 68 will satisfy the requirements of § 450.173(d) and (e) to the extent that they include the elements required by § 450.173(d) and (e).

PART 431 [REMOVE AND RESERVE]

■ 23. Remove and reserve part 431.

PART 433—LICENSE TO OPERATE A REENTRY SITE

■ 24. The authority citation for part 433 continues to read as follows:

Authority: 51 U.S.C. 50901–50923.

■ 25. Revise § 433.7 to read as follows:

§ 433.7 Environmental.

(a) *General.* The FAA is responsible for complying with the procedures and policies of the National Environmental Policy Act (NEPA) and other applicable environmental laws, regulations, and Executive Orders prior to issuing a reentry site license. An applicant must provide the FAA with information needed to comply with such requirements. The FAA will consider and document the potential environmental effects associated with issuing a license for a reentry site.

(b) *Environmental Impact Statement or Environmental Assessment.* An applicant must—

(1) Prepare an Environmental Assessment with FAA oversight;

(2) Assume financial responsibility for preparation of an Environmental Impact Statement by an FAA-selected and -managed consultant contractor; or

(3) Submit a written re-evaluation of a previously submitted Environmental Assessment or Environmental Impact Statement when requested by the FAA.

(c) *Categorical exclusion.* An applicant may request a categorical exclusion determination from the FAA by submitting the request and supporting rationale.

(d) *Environmental information.* An application must include an approved FAA Environmental Assessment, Environmental Impact Statement, categorical exclusion determination, or written re-evaluation covering all planned licensed activities in compliance with NEPA and the Council on Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA.

§ 433.9 [Removed and Reserved]

■ 26. Remove and reserve § 433.9.

PART 435 [REMOVED AND RESERVED]

■ 27. Remove and reserve part 435.

PART 437—EXPERIMENTAL PERMITS

■ 28. The authority citation for part 437 continues to read as follows:

Authority: 51 U.S.C. 50901–50923.

§ 437.3 [Amended]

■ 29. Amend § 437.3 by removing the definition for ''Anomaly.''

■ 30. Amend § 437.21 by revising paragraphs (b) and (c) to read as follows:

§ 437.21 General.

* * * * *

(b) *Other regulations*—(1) *Environmental*—(i) *General.* The FAA is responsible for complying with the procedures and policies of the National Environmental Policy Act (NEPA) and other applicable environmental laws, regulations, and Executive Orders to consider and document the potential environmental effects associated with proposed reusable suborbital rocket launches or reentries. An applicant must provide the FAA with information needed to comply with such requirements. The FAA will consider and document the potential environmental effects associated with proposed reusable suborbital rocket launches or reentries.

(ii) *Environmental Impact Statement or Environmental Assessment.* An applicant must—

(A) Prepare an Environmental Assessment with FAA oversight;

(B) Assume financial responsibility for preparation of an Environmental Impact Statement by an FAA-selected and -managed consultant contractor; or

(C) Submit a written re-evaluation of a previously submitted Environmental Assessment or Environmental Impact Statement when requested by the FAA.

(iii) *Categorical exclusion.* An applicant may request a categorical exclusion determination from the FAA by submitting the request and supporting rationale.

(iv) *Information requirements.* An application must include an approved FAA Environmental Assessment, Environmental Impact Statement, categorical exclusion determination, or written re-evaluation covering all planned licensed activities in compliance with NEPA and the Council on Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA.

(2) *Financial responsibility.* An applicant must provide the information required by part 3 of appendix A of part 440 of this chapter for the FAA to

conduct a maximum probable loss analysis.

(3) *Human space flight.* An applicant proposing launch or reentry with flight crew or a space flight participant on board a reusable suborbital rocket must demonstrate compliance with §§ 460.5, 460.7, 460.11, 460.13, 460.15, 460.17, 460.51 and 460.53 of this subchapter.

(c) *Use of a safety element approval.* If an applicant proposes to use any reusable suborbital rocket, safety system, process, service, or personnel for which the FAA has issued a safety element approval under part 414 of this chapter, the FAA will not reevaluate that safety element to the extent its use is within its approved envelope. As part of the application process, the FAA will evaluate the integration of that safety element into vehicle systems or operations.

* * * * *

■ 31. Revise § 437.41 to read as follows:

§ 437.41 Mishap plan.

An applicant must submit a mishap plan that meets the requirements of § 450.173 of this chapter.

■ 32. Revise § 437.65 to read as follows:

§ 437.65 Collision avoidance analysis.

For a permitted flight with a planned maximum altitude greater than 150 kilometers, a permittee must obtain a collision avoidance analysis in accordance with § 450.169 of this chapter.

§ 437.75 [Removed and Reserved]

■ 33. Remove and reserve § 437.75.

■ 34. Amend § 437.89 by:

■ a. Revising paragraph (a) introductory text;

■ b. In paragraphs (a)(1) through (3), removing the comma at the end of the paragraphs and adding a semicolon in its place; and

■ c. Revise paragraph (b).

The revisions read as follows:

§ 437.89 Pre-flight reporting.

(a) Not later than 30 days before each flight or series of flights conducted under an experimental permit, unless the Administrator agrees to a different time frame in accordance with § 404.15 of this chapter, a permittee must provide the FAA with the following information:

* * * * *

(b) Not later than 15 days before each permitted flight planned to reach greater than 150 km altitude, unless the Administrator agrees to a different time frame in accordance with § 404.15, a of this chapter permittee must provide the FAA its planned trajectory for a collision avoidance analysis.

PART 440—FINANCIAL RESPONSIBILITY

■ 35. The authority citation for part 440 continues to read as follows:

Authority: 51 U.S.C. 50901–50923.

■ 36. Amend § 440.3 by revising the definition for ''Maximum probable loss'' to read as follows:

§ 440.3 Definitions.

* * * * *

Maximum probable loss (MPL) means the greatest dollar amount of loss for bodily injury or property damage that is reasonably expected to result from a licensed or permitted activity:

(1) Losses to third parties, excluding Government personnel and other launch or reentry participants' employees involved in licensed or permitted activities and neighboring operations personnel, that are reasonably expected to result from a licensed or permitted activity are those that have a probability of occurrence of no less than one in ten million.

(2) Losses to Government property and Government personnel involved in licensed or permitted activities and neighboring operations personnel that are reasonably expected to result from licensed or permitted activities are those that have a probability of occurrence of no less than one in one hundred thousand.

* * * * *

■ 37. Amend § 440.15 by revising paragraphs (a)(1) through (4) to read as follows:

§ 440.15 Demonstration of compliance.

(a) * * *

(1) All reciprocal waiver of claims agreements required under § 440.17(c) must be submitted at least 30 days before the start of any licensed or permitted activity involving a customer, crew member, or space flight participant; unless the Administrator agrees to a different time frame in accordance with § 404.15 of this chapter;

(2) Evidence of insurance must be submitted at least 30 days before commencement of any licensed launch or permitted activity, and for licensed reentry no less than 30 days, before commencement of launch activities involving the reentry licensee, unless the Administrator agrees to a different time frame in accordance with § 404.15 of this chapter;

(3) Evidence of financial responsibility in a form other than insurance, as provided under § 440.9(f) must be submitted at least 60 days before commencement of a licensed or permitted activity, unless the Administrator agrees to a different time frame in accordance with § 404.15 of this chapter; and

(4) Evidence of renewal of insurance or other form of financial responsibility must be submitted at least 30 days in advance of its expiration date, unless the Administrator agrees to a different time frame in accordance with § 404.15 of this chapter.

* * * * *

■ 38. Add part 450 to read as follows:

PART 450—LAUNCH AND REENTRY LICENSE REQUIREMENTS

Sec.

Subpart A—General Information

450.1 Applicability.
450.3 Scope of a vehicle operator license.
450.5 Issuance of a vehicle operator license.
450.7 Duration of a vehicle operator license.
450.9 Additional license terms and conditions.
450.11 Transfer of a vehicle operator license.
450.13 Rights not conferred by a vehicle operator license.

Subpart B—Requirements to Obtain a Vehicle Operator License

450.31 General.
450.33 Incremental review and determinations.
450.35 Accepted means of compliance.
450.37 Equivalent level of safety.
450.39 Use of safety element approval.
450.41 Policy review and approval.
450.43 Payload review and determination.
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450.47 Environmental review.

Subpart C—Safety Requirements

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450.101 Public safety criteria.

System Safety Program

450.103 System safety program.

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450.105 Preliminary safety assessment for flight.
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450.109 Flight hazard analysis.
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450.115 Flight safety analysis methods.
450.117 Trajectory analysis for normal flight.
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450.125 Gate analysis.
450.127 Data loss Flight time and planned safe flight state analyses.

450.129 Time delay analysis.
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450.139 Toxic hazards for flight.
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Prescribed Hazard Controls

450.143 Safety-critical system design, test, and documentation.
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450.149 Safety-critical personnel qualifications.
450.151 Work shift and rest requirements.
450.153 Radio frequency management.
450.155 Readiness.
450.157 Communications.
450.159 Preflight procedures.
450.161 Surveillance and publication of hazard areas.
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450.167 Tracking.
450.169 Launch and reentry collision avoidance analysis requirements.
450.171 Safety at end of launch.
450.173 Mishap plan—reporting, response, and investigation requirements.
450.175 Test-induced damage.
450.177 Unique Policies, requirements, and practices.

Ground Safety

450.179 Ground safety—general.
450.181 Coordination with a site operator.
450.183 Explosive site plan.
450.185 Ground hazard analysis.
450.187 Toxic hazards mitigation for ground operations.
450.189 Ground safety prescribed hazard controls.

Subpart D—Terms and Conditions of a Vehicle Operator License.

450.201 Public safety responsibility.
450.203 Compliance with license.
450.205 Financial responsibility requirements.
450.207 Human Spaceflight Requirements.
450.209 Compliance monitoring.
450.211 Continuing accuracy of license application; application for modification of license.
450.213 Preflight reporting.
450.215 Post-flight reporting.
450.217 Registration of space objects.
450.219 Records.
Appendix A to Part 450—Collision Analysis Worksheet

Authority: 51 U.S.C. 50901–50923.

Subpart A—General Information

§ 450.1 Applicability.

(a) *General.* This part prescribes requirements for obtaining and maintaining a license to launch, reenter, or both launch and reenter, a launch or reentry vehicle.

(b) *Grandfathering.* Except for §§ 450.169 and 450.101(a)(4) and (b)(4), this part does not apply to any launch or reentry that an operator elects to conduct pursuant to a license issued by the FAA or an application accepted by the FAA no later than [EFFECTIVE DATE OF FINAL RULE]. The Administrator will determine the applicability of this part to an application for a license modification submitted after [EFFECTIVE DATE OF FINAL RULE] on a case-by-case basis.

§ 450.3 Scope of a vehicle operator license.

(a) A vehicle operator license authorizes a licensee to conduct one or more launches or reentries using the same vehicle or family of vehicles. A vehicle operator license identifies the scope of authorization as defined in paragraphs (b) and (c) of this section or as agreed to by the Administrator.

(b) A vehicle operator license authorizes launch, which includes the flight of a launch vehicle and pre- and post-flight ground operations as follows:

(1) Launch begins when hazardous preflight ground operations commence at a U.S. launch site that pose a threat to the public. Unless a later point is agreed to by the Administrator, hazardous preflight ground operations commence when a launch vehicle or its major components arrive at a U.S. launch site.

(2) At a non-U.S. launch site, launch begins at ignition or at the first movement that initiates flight, whichever occurs earlier.

(3) Launch ends when any of the following events occur:

(i) For an orbital launch of a vehicle without a reentry of the vehicle, launch ends after the licensee's last exercise of control over its vehicle on orbit, after vehicle stage impact on Earth, after activities necessary to return the vehicle or stage to a safe condition on the ground after landing, or after activities necessary to return the site to a safe condition, whichever occurs later;

(ii) For an orbital launch of a vehicle with a reentry of the vehicle, launch ends after deployment of all payloads, upon completion of the vehicle's first steady-state orbit if there is no payload, or after activities necessary to return the site to a safe condition, whichever occurs later;

(iii) For a suborbital launch that includes a reentry, launch ends after reaching apogee; or

(iv) For a suborbital launch that does not include a reentry, launch ends after the vehicle or vehicle component impact on Earth, after activities necessary to return the vehicle or vehicle component to a safe condition on the ground after landing, or after activities necessary to return the site to a safe condition, whichever occurs later.

(c) A vehicle operator's license authorizes reentry, which includes activities conducted in Earth orbit or outer space to determine reentry readiness and that are critical to ensuring public health and safety and the safety of property during reentry flight. Reentry also includes activities necessary to return the reentry vehicle to a safe condition on the ground after landing.

§ 450.5 Issuance of a vehicle operator license.

(a) The FAA issues a vehicle operator license to an applicant who has obtained all approvals and determinations required under this part for a license.

(b) A vehicle operator license authorizes a licensee to conduct launches or reentries, in accordance with the representations contained in the licensee's application, with subparts C and D of this part, and subject to the licensee's compliance with terms and conditions contained in license orders accompanying the license, including financial responsibility requirements.

§ 450.7 Duration of a vehicle operator license.

A vehicle operator license is valid for the period of time determined by the Administrator as necessary to conduct the licensed activity but may not exceed 5 years from the issuance date.

§ 450.9 Additional license terms and conditions.

The FAA may modify a vehicle operator license at any time by modifying or adding license terms and conditions to ensure compliance with the Act (as defined in § 401.5 of this chapter) and its implementing regulations in this chapter.

§ 450.11 Transfer of a vehicle operator license.

(a) Only the FAA may transfer a vehicle operator license.

(b) An applicant for transfer of a vehicle operator license must submit a license application in accordance with part 413 of this chapter and must meet the requirements of part 450 of this chapter. The FAA will transfer a license to an applicant that has obtained all of the approvals and determinations required under this part for a license. In conducting its reviews and issuing approvals and determinations, the FAA may incorporate by reference any findings made part of the record to support the initial licensing determination. The FAA may modify a

license to reflect any changes necessary as a result of a license transfer.

§ 450.13 Rights not conferred by a vehicle operator license.

Issuance of a vehicle operator license does not relieve a licensee of its obligation to comply with all applicable requirements of law or regulation that may apply to its activities, nor does issuance confer any proprietary, property or exclusive right in the use of any Federal launch range or related facilities, airspace, or outer space.

Subpart B—Requirements to Obtain a Vehicle Operator License

§ 450.31 General.

(a) To obtain a vehicle operator license, an applicant must—

(1) Submit a license application in accordance with the procedures in part 413 of this chapter;

(2) Obtain a policy approval from the Administrator in accordance with § 450.41;

(3) Obtain a favorable payload determination from the Administrator in accordance with § 450.43;

(4) Obtain a safety approval from the Administrator in accordance with § 450.45;

(5) Satisfy the environmental review requirements of § 450.47; and

(6) Provide the information required by appendix A of part 440 of this chapter for the Administrator to conduct a maximum probable loss analysis for the applicable licensed operation.

(b) An applicant may apply for the approvals and determinations in paragraphs (a)(2) through (6) of this section separately or all together in one complete application, using the application procedures contained in part 413 of this chapter.

(c) An applicant may also apply for a safety approval in an incremental manner, in accordance with § 450.33.

(d) An applicant may reference materials previously provided as part of a license application in order to meet the application requirements of this part.

§ 450.33 Incremental review and determinations.

An applicant may submit its application for a safety review incrementally using an approach approved by the Administrator.

(a) An applicant must identify to the Administrator, prior to submitting an application, whether it will submit an incremental application for any approval or determination.

(b) An applicant using an incremental approach must have the approach approved by the Administrator prior to submitting an application.

(c) The Administrator may make incremental determinations as part of this review process.

§ 450.35 Accepted means of compliance.

(a) An applicant must demonstrate compliance with applicable sections of this part using a means of compliance accepted by the Administrator. These applicable sections specify that only an accepted means of compliance can be used to demonstrate compliance.

(b) The FAA will provide public notice of each means of compliance that the Administrator has accepted.

(c) An applicant requesting acceptance of an alternative means of compliance must submit the alternative means of compliance to the FAA in a form and manner acceptable to the Administrator.

§ 450.37 Equivalent level of safety.

(a) An applicant must demonstrate compliance with each requirement of this part, unless the applicant clearly and convincingly demonstrates that an alternative approach provides an equivalent level of safety to the requirement of this part.

(b) Paragraph (a) of this section does not apply to the requirements of § 450.101.

§ 450.39 Use of safety element approval.

If an applicant proposes to use any vehicle, safety system, process, service, or personnel for which the FAA has issued a safety element approval under part 414 of this chapter, the FAA will not reevaluate that safety element during a license application evaluation to the extent its use is within its approved envelope.

§ 450.41 Policy review and approval.

(a) *General.* The FAA issues a policy approval to an applicant unless the FAA determines that a proposed launch or reentry would jeopardize U.S. national security or foreign policy interests, or international obligations of the United States.

(b) *Interagency consultation.* (1) The FAA consults with the Department of Defense to determine whether a license application presents any issues affecting U.S. national security.

(2) The FAA consults with the Department of State to determine whether a license application presents any issues affecting U.S. foreign policy interests or international obligations.

(3) The FAA consults with other Federal agencies, including the National Aeronautics and Space Administration, authorized to address issues identified under paragraph (a) of this section, associated with an applicant's proposal.

(c) *Issues during policy review.* The FAA will advise an applicant, in writing, of any issue raised during a policy review that would impede issuance of a policy approval. The applicant may respond, in writing, or amend its license application as required by § 413.17 of this chapter.

(d) *Denial of policy approval.* The FAA notifies an applicant, in writing, if it has denied policy approval for a license application. The notice states the reasons for the FAA's determination. The applicant may respond in writing to the reasons for the determination and request reconsideration in accordance with § 413.21 of this chapter.

(e) *Application requirements for policy review.* In its license application, an applicant must—

(1) Identify the model, type, and configuration of any vehicle proposed for launch or reentry by the applicant;

(2) Describe the vehicle by characteristics that include individual stages, their dimensions, type and amounts of all propellants, and maximum thrust;

(3) Identify foreign ownership of the applicant as follows:

(i) For a sole proprietorship or partnership, identify all foreign ownership;

(ii) For a corporation, identify any foreign ownership interests of 10 percent or more; and

(iii) For a joint venture, association, or other entity, identify any participating foreign entities; and

(4) Identify proposed vehicle flight profile, including:

(i) Launch or reentry site, including any contingency abort locations;

(ii) Flight azimuths, trajectories, and associated ground tracks and instantaneous impact points for the duration of the licensed activity, including any contingency abort profiles;

(iii) Sequence of planned events or maneuvers during flight;

(iv) Normal impact or landing areas for all mission hardware; and

(v) For each orbital mission, the range of intermediate and final orbits of each vehicle upper stage and their estimated orbital lifetimes.

§ 450.43 Payload review and determination.

(a) *General.* The FAA issues a favorable payload determination for a launch or reentry to a license applicant or payload owner or operator if—

(1) The applicant, payload owner, or payload operator has obtained all required licenses, authorizations, and permits; and

(2) Its launch or reentry would not jeopardize public health and safety, safety of property, U.S. national security or foreign policy interests, or international obligations of the United States.

(b) *Relationship to other executive agencies.* The FAA does not make a determination under paragraph (a)(2) of this section for—

(1) Those aspects of payloads that are subject to regulation by the Federal Communications Commission or the Department of Commerce; or

(2) Payloads owned or operated by the U.S. Government.

(c) *Classes of payloads.* The FAA may review and issue findings regarding a proposed class of payload, including communications, remote sensing, or navigation. However, prior to a launch or reentry, each payload is subject to verification by the FAA that its launch or reentry would not jeopardize public health and safety, safety of property, U.S. national security or foreign policy interests, or international obligations of the United States.

(d) *Payload owner or payload operator may apply.* In addition to a launch or reentry operator, a payload owner or payload operator may request a payload review and determination.

(e) *Interagency consultation.* The FAA consults with other agencies as follows:

(1) The Department of Defense to determine whether launch or reentry of a proposed payload or payload class would present any issues affecting U.S. national security;

(2) The Department of State to determine whether launch or reentry of a proposed payload or payload class would present any issues affecting U.S. foreign policy interests or international obligations; or

(3) Other Federal agencies, including the National Aeronautics and Space Administration, authorized to address issues of public health and safety, safety of property, U.S. national security or foreign policy interests, or international obligations of the United States, associated with the launch or reentry of a proposed payload or payload class.

(f) *Issues during payload review.* The FAA will advise a person requesting a payload determination, in writing, of any issue raised during a payload review that would impede issuance of a license to launch or reenter that payload or payload class. The person requesting payload review may respond, in writing, or amend its application as required by § 413.17 of this chapter.

(g) *Denial of a payload determination.* The FAA notifies an applicant, in writing, if it has denied a favorable payload determination. The notice states the reasons for the FAA's determination. The applicant may respond in writing to the reasons for the determination and request reconsideration in accordance with § 413.21 of this chapter.

(h) *Incorporation of payload determination in license application.* A favorable payload determination issued for a payload or class of payload may be included by a license applicant as part of its application. However, any change in information provided under paragraph (i) of this section must be reported in accordance with § 413.17 of this chapter. The FAA determines whether a favorable payload determination remains valid in light of reported changes and may conduct an additional payload review.

(i) *Application requirements.* A person requesting review of a particular payload or payload class must identify the following:

(1) For launch of a payload:

(i) Payload name or class, and function;

(ii) Description, including physical dimensions, weight, composition, and any hosted payloads;

(iii) Payload owner and payload operator, if different from the person requesting payload review and determination,

(iv) Any foreign ownership of the payload or payload operator, as specified in § 450.41(e)(3);

(v) Hazardous materials as defined in § 401.5 of this chapter, radioactive materials, and the amounts of each;

(vi) Explosive potential of payload materials, alone and in combination with other materials found on the payload;

(vii) For orbital launches, parameters for parking, transfer and final orbits, and approximate transit times to final orbit;

(viii) Delivery point in flight at which the payload will no longer be under the licensee's control;

(ix) Intended operations during the lifetime of the payload, including anticipated life span and any planned disposal;

(x) Any encryption associated with data storage on the payload and transmissions to or from the payload; and

(xi) Any other information necessary to make a determination based on public health and safety, safety of property, U.S. national security or foreign policy interests, or international obligations of the United States; or

(2) For reentry of a payload:

(i) Payload name or class and function;

(ii) Physical characteristics, dimensions, and weight of the payload;

(iii) Payload owner and payload operator, if different from the person requesting the payload review and determination;

(iv) Type, amount, and container of hazardous materials and radioactive materials in the payload;

(v) Explosive potential of payload materials, alone and in combination with other materials found on the payload or reentry vehicle during reentry; and

(vi) Designated reentry site.

§ 450.45 Safety review and approval.

(a) *General.* The FAA issues a safety approval to an applicant if it determines that an applicant can conduct launch or reentry without jeopardizing public health and safety and safety of property. A license applicant must satisfy the application requirements in this section and subpart C of this part.

(b) *Services or property provided by a Federal launch range.* The FAA will accept any safety-related launch or reentry service or property provided by a Federal launch range or other Federal entity by contract, as long as the FAA determines that the launch or reentry services or property provided satisfy this part.

(c) *Issues during safety review.* The FAA will advise an applicant, in writing, of any issues raised during a safety review that would impede issuance of a safety approval. The applicant may respond, in writing, or amend its license application as required by § 413.17 of this chapter.

(d) *Denial of a safety approval.* The FAA notifies an applicant, in writing, if it has denied a safety approval for a license application. The notice states the reasons for the FAA's determination. The applicant may respond in writing to the reasons for the determination and request reconsideration in accordance with § 413.21 of this chapter.

(e) *Application requirements.* An applicant must submit the application requirements information in subpart C of this part, as well as the following:

(1) *General.* An application must—

(i) Contain a glossary of unique terms and acronyms used in alphabetical order;

(ii) Contain a listing of all referenced material;

(iii) Use equations and mathematical relationships derived from or referenced to a recognized standard or text, and define all algebraic parameters;

(iv) Include the units of all numerical values provided; and

(v) Include a legend or key that identifies all symbols used for any schematic diagrams.

(2) *Site description.* An applicant must identify the proposed launch or

reentry site, including contingency abort locations, and submit the following:

(i) Boundaries of the site;

(ii) Launch or landing point locations, including latitude and longitude;

(iii) Identity of any site operator; and

(iv) Identity of any facilities at the site that will be used for pre- or post-flight ground operations.

(3) *Vehicle description.* An applicant must submit the following:

(i) A written description of the vehicle or family of vehicles, including structural, thermal, pneumatic, propulsion, electrical, and avionics and guidance systems used in each vehicle, and all propellants. The description must include a table specifying the type and quantities of all hazardous materials on each vehicle and must include propellants, explosives, and toxic materials; and

(ii) A drawing of each vehicle that identifies:

(A) Each stage, including strap-on motors;

(B) Physical dimensions and weight;

(C) Location of all safety-critical systems;

(D) Location of all major vehicle control systems, propulsion systems, pressure vessels, and any other hardware that contains potential hazardous energy or hazardous material; and

(E) For an unguided suborbital launch vehicle, the location of the rocket's center of pressure in relation to its center of gravity for the entire flight profile.

(4) *Mission schedule.* An applicant must submit a generic launch or reentry processing schedule that identifies any readiness activities, such as reviews and rehearsals, and each safety-critical preflight operation to be conducted. The mission schedule must also identify day of flight activities.

(5) *Human space flight.* For a proposed launch or reentry with a human being on board a vehicle, an applicant must demonstrate compliance with §§ 460.5, 460.7, 460.11, 460.13, 460.15, 460.17, 460.51, and 460.53 of this chapter.

(6) *Radionuclides.* The FAA will evaluate the launch or reentry of any radionuclide on a case-by-case basis, and issue an approval if the FAA finds that the launch or reentry is consistent with public health and safety, safety of property, and national security and foreign policy interests of the United States. For any radionuclide on a launch or reentry vehicle, an applicant must—

(i) Identify the type and quantity;

(ii) Include a reference list of all documentation addressing the safety of its intended use; and

(iii) Describe all approvals by the Nuclear Regulatory Commission for preflight ground operations.

(7) *Additional material.* The FAA may also request—

(i) Any information incorporated by reference in the license application; and

(ii) Additional products that allow the FAA to conduct an independent safety analysis.

§ 450.47 Environmental review.

(a) *General.* The FAA is responsible for complying with the procedures and policies of the National Environmental Policy Act (NEPA) and other applicable environmental laws, regulations, and Executive Orders prior to issuing a launch or reentry license. An applicant must provide the FAA with information needed to comply with such requirements. The FAA will consider and document the potential environmental effects associated with issuing a launch or reentry license consistent with paragraph (b) of this section.

(b) *Environmental Impact Statement or Environmental Assessment.* An applicant must—

(1) Prepare an Environmental Assessment with FAA oversight;

(2) Assume financial responsibility for preparation of an Environmental Impact Statement by an FAA-selected and -managed consultant contractor; or

(3) Submit a written re-evaluation of a previously submitted Environmental Assessment or Environmental Impact Statement when requested by the FAA.

(c) *Categorical exclusion.* An applicant may request a categorical exclusion determination from the FAA by submitting the request and supporting rationale.

(d) *Application requirements.* An application must include an approved FAA Environmental Assessment, Environmental Impact Statement, categorical exclusion determination, or written re-evaluation, which should address compliance with any other applicable environmental laws, regulations, and Executive Orders covering all planned licensed activities in compliance with NEPA and the Council on Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA.

Subpart C—Safety Requirements

Public Safety Criteria

§ 450.101 Public safety criteria.

(a) *Launch risk criteria.* An operator may initiate the flight of a launch vehicle only if all risks to the public satisfy the criteria in paragraphs (a)(1) through (4) of this section. The following criteria apply to each launch from liftoff through orbital insertion for an orbital launch, and through final impact or landing for a suborbital launch:

(1) *Collective risk.* The collective risk, measured as expected number of casualties (E_C), consists of risk posed by impacting inert and explosive debris, toxic release, and far field blast overpressure. The FAA will determine whether to approve public risk due to any other hazard associated with the proposed flight of a launch vehicle on a case-by-case basis.

(i) The risk to all members of the public, excluding persons in aircraft and neighboring operations personnel, must not exceed an expected number of 1×10^{-4} casualties.

(ii) The risk to all neighboring operations personnel must not exceed an expected number of 2×10^{-4} casualties.

(2) *Individual risk.* The individual risk, measured as probability of casualty (P_C), consists of risk posed by impacting inert and explosive debris, toxic release, and far field blast overpressure. The FAA will determine whether to approve public risk due to any other hazard associated with the proposed flight of a launch vehicle on a case-by-case basis.

(i) The risk to any individual member of the public, excluding neighboring operations personnel, must not exceed a probability of casualty of 1×10^{-6} per launch.

(ii) The risk to any individual neighboring operations personnel must not exceed a probability of casualty of 1×10^{-5} per launch.

(3) *Aircraft risk.* A launch operator must establish any aircraft hazard areas necessary to ensure the probability of impact with debris capable of causing a casualty for aircraft does not exceed 1×10^{-6}.

(4) *Risk to critical assets.* The probability of loss of functionality for each critical asset must not exceed 1×10^{-3}, or a more stringent probability if the FAA determines, in consultation with relevant Federal agencies, it is necessary to protect the national security interests of the United States.

(b) *Reentry risk criteria.* An operator may initiate the deorbit of a vehicle only if all risks to the public satisfy the criteria in paragraphs (b)(1) through (4) of this section. The following criteria apply to each reentry, from the final health check prior to the deorbit burn through final impact or landing:

(1) *Collective risk.* The collective risk, measured as expected number of casualties (E_C), consists of risk posed by impacting inert and explosive debris, toxic release, and far field blast

overpressure. The FAA will determine whether to approve public risk due to any other hazard associated with the proposed deorbit of a reentry vehicle on a case-by-case basis.

(i) The risk to all members of the public, excluding persons in aircraft and neighboring operations personnel, must not exceed an expected number of 1×10^{-4} casualties.

(ii) The risk to all neighboring operations personnel must not exceed an expected number of 2×10^{-4} casualties.

(2) *Individual risk.* The individual risk, measured as probability of casualty (P_C), consists of risk posed by impacting inert and explosive debris, toxic release, and far field blast overpressure. The FAA will determine whether to approve public risk due to any other hazard associated with the proposed flight of a launch vehicle on a case-by-case basis.

(i) The risk to any individual member of the public, excluding neighboring operations personnel, must not exceed a probability of casualty of 1×10^{-6} per reentry.

(ii) The risk to any individual neighboring operations personnel must not exceed a probability of casualty of 1×10^{-5} per reentry.

(3) *Aircraft risk.* A reentry operator must establish any aircraft hazard areas necessary to ensure the probability of impact with debris capable of causing a casualty for aircraft does not exceed 1×10^{-6}.

(4) *Risk to critical assets.* The probability of loss of functionality for each critical asset must not exceed 1×10^{-3}, or a more stringent probability if the FAA determines, in consultation with relevant Federal agencies, it is necessary to protect the national security interests of the United States.

(c) *Flight abort.* An operator must use flight abort with a flight safety system that meets the requirements of § 450.145 as a hazard control strategy if the consequence of any reasonably foreseeable vehicle response mode, in any one-second period of flight, is greater than 1×10^{-3} conditional expected casualties for uncontrolled areas. This requirement applies to all phases of flight, unless otherwise agreed to by the Administrator based on the demonstrated reliability of the launch or reentry vehicle during that phase of flight.

(d) *Disposal safety criteria.* A launch operator must ensure that any disposal meets the criteria of paragraphs (b)(1), (2), and (3) of this section, or targets a broad ocean area.

(e) *Protection of people and property on-orbit.* (1) A launch or reentry operator must prevent the collision between a launch or reentry vehicle stage or component and people or property on-orbit, in accordance with the requirements in § 450.169(a).

(2) For any launch vehicle stage or component that reaches Earth orbit, a launch operator must prevent the creation of debris through the conversion of energy sources into energy that fragments the stage or component, in accordance with the requirements in § 450.171.

(f) *Notification of planned impacts.* For any launch, reentry, or disposal, an operator must notify the public of any region of land, sea, or air that contain, with 97 percent probability of containment, all debris resulting from normal flight events capable of causing a casualty.

(g) *Validity of the analysis.* For any analysis used to demonstrate compliance with this section, an operator must use accurate data and scientific principles and be statistically valid. The method must produce results consistent with or more conservative than the results available from previous mishaps, tests, or other valid benchmarks, such as higher-fidelity methods.

System Safety Program

§ 450.103 System safety program.

An operator must implement and document a system safety program throughout the operational lifecycle of a launch or reentry system that includes the following:

(a) *Safety organization.* An operator must maintain and document a safety organization that has clearly defined lines of communication and approval authority for all public safety decisions. At a minimum, the safety organization must have the following positions:

(1) *Mission director.* For each launch or reentry, an operator must designate a position responsible for the safe conduct of all licensed activities and authorized to provide final approval to proceed with licensed activities. This position is referred to as the mission director in this part.

(2) *Safety official.* For each launch or reentry, an operator must designate a position with direct access to the mission director that is—

(i) Responsible for communicating potential safety and noncompliance issues to the mission director; and

(ii) Authorized to examine all aspects of the operator's ground and flight safety operations, and to independently monitor compliance with the operator's safety policies, safety procedures, and licensing requirements.

(3) *Addressing safety concerns.* The mission director must ensure that all of the safety official's concerns are addressed.

(b) *Procedures.* An operator must establish procedures to evaluate the operational lifecycle of the launch or reentry system:

(1) An operator must conduct a preliminary safety assessment as required by § 450.105, and the system safety program must include:

(i) Methods to review and assess the validity of the preliminary safety assessment throughout the operational lifecycle of the launch or reentry system;

(ii) Methods for updating the preliminary safety assessment; and

(iii) Methods for communicating and implementing the updates throughout the organization.

(2) For operators that must conduct a flight hazard analysis as required by § 450.109, the system safety program must include:

(i) Methods to review and assess the validity of the flight hazard analysis throughout the operational lifecycle of the launch or reentry system;

(ii) Methods for updating the flight hazard analysis;

(iii) Methods for communicating and implementing the updates throughout the organization; and

(iv) A process for tracking hazards, risks, mitigation and hazard control measures, and verification activities.

(c) *Configuration management and control.* An operator must—

(1) Employ a process that tracks configurations of all safety-critical systems and documentation related to the operation;

(2) Ensure the use of correct and appropriate versions of systems and documentation tracked in paragraph (c)(1) of this section; and

(3) Maintain records of launch or reentry system configurations and document versions used for each licensed activity, as required by § 450.219.

(d) *Post-flight data review.* An operator must employ a process for evaluating post-flight data to—

(1) Ensure consistency between the assumptions used for the preliminary safety assessment, any hazard or flight safety analysis, and associated mitigation and hazard control measures;

(2) Resolve any identified inconsistencies prior to the next flight of the vehicle;

(3) Identify any anomaly that may impact any flight hazard analysis, flight safety analysis, or safety critical system, or is otherwise material to public health and safety and the safety of property; and

(4) Address any anomaly identified in paragraph (d)(3) of this section prior to

the next flight, including updates to any flight hazard analysis, flight safety analysis, or safety critical system.

(e) *Application requirements.* An applicant must submit in its application the following:

(1) A description of the applicant's safety organization as required by paragraph (a) of this section, identifying the applicant's lines of communication and approval authority, both internally and externally, for all public safety decisions and the provision of public safety services; and

(2) A summary of the processes and products identified in the system safety program requirements in paragraphs (b), (c), and (d) of this section.

Preliminary Safety Assessment for Flight and Hazard Control Strategies

§ 450.105 Preliminary safety assessment for flight.

(a) *Preliminary safety assessment.* An operator must conduct and document a preliminary safety assessment for the flight of a launch or reentry vehicle that identifies—

(1) Vehicle response modes;

(2) Public safety hazards associated with vehicle response modes, including impacting inert and explosive debris, toxic release, and far field blast overpressure;

(3) Geographical areas where vehicle response modes could jeopardize public safety;

(4) Any population exposed to public safety hazards in or near the identified geographical areas;

(5) The CE_C, unless otherwise agreed to by the Administrator based on the demonstrated reliability of the launch or reentry vehicle during any phase of flight;

(6) A preliminary hazard list which documents all hardware, operational, and design causes of vehicle response modes that, excluding mitigation, have the capability to create a hazard to the public;

(7) Safety-critical systems; and

(8) A timeline of all safety-critical events.

(b) *Application requirements.* An applicant must submit the result of the preliminary safety assessment, including all of the items identified in paragraph (a) of this section.

§ 450.107 Hazard control strategies.

(a) *General.* For each phase of a launch or reentry vehicle's flight—

(1) If the public safety hazards identified in the preliminary safety assessment can be mitigated adequately to meet the requirements of § 450.101 using physical containment, wind weighting, or flight abort, in accordance with paragraphs (b), (c), and (d) of this section, an operator does not need to conduct a flight hazard analysis for that phase of flight.

(2) If the public safety hazards identified in the preliminary safety assessment cannot be mitigated adequately to meet the public risk criteria of § 450.101 using physical containment, wind weighting, or flight abort, in accordance with paragraphs (b), (c), and (d) of this section, an operator must conduct a flight hazard analysis in accordance with § 450.109 to derive hazard controls for that phase of flight.

(b) *Physical containment.* To use physical containment as a hazard control strategy, an operator must—

(1) Ensure that the launch vehicle does not have sufficient energy for any hazards associated with its flight to reach outside the flight hazard area developed in accordance with § 450.133; and

(2) Apply other mitigation measures to ensure no public exposure to hazards as agreed to by the Administrator on a case-by-case basis.

(c) *Wind weighting.* To use wind weighting as a hazard control strategy—

(1) The launch vehicle must be a suborbital rocket that does not contain any guidance or directional control system; and

(2) An operator must conduct the launch using a wind weighting safety system in accordance with § 450.141.

(d) *Flight abort.* To use flight abort as a hazard control strategy an operator must employ a flight safety system, or other safeguards agreed to by the Administrator, that meets the requirements of § 450.145.

(e) *Application requirement.* An applicant must—

(1) Describe its hazard control strategy for each phase of flight; and

(2) If using physical containment as a hazard control strategy—

(i) Demonstrate that the launch vehicle does not have sufficient energy for any hazards associated with its flight to reach outside the flight hazard area developed in accordance with § 450.133; and

(ii) Describe the methods used to ensure that flight hazard areas are cleared of the public and critical assets.

Flight Hazard Analyses for Hardware and Software

§ 450.109 Flight hazard analysis.

Unless an operator uses physical containment, wind weighting, or flight abort as a hazard control strategy, an operator must perform and document a flight hazard analysis, and continue to maintain it throughout the lifecycle of the launch or reentry system. Hazards associated with computing systems and software are further addressed in § 450.111.

(a) *Flight hazard analysis.* A flight hazard analysis must identify, describe, and analyze all reasonably foreseeable hazards to public safety and safety of property resulting from the flight of a launch or reentry vehicle. Each flight hazard analysis must—

(1) Identify all reasonably foreseeable hazards, and the corresponding vehicle response mode for each hazard, associated with the launch or reentry system relevant to public safety and safety of property, including those resulting from:

(i) Vehicle operation, including staging and release;

(ii) System, subsystem, and component failures or faults;

(iii) Software operations;

(iv) Environmental conditions;

(v) Human factors;

(vi) Design inadequacies;

(vii) Procedure deficiencies;

(viii) Functional and physical interfaces between subsystems, including any vehicle payload;

(ix) Reuse of components or systems; and

(x) Interactions of any of the items in paragraphs (a)(1)(i) through (ix) of this section.

(2) Assess each hazard's likelihood and severity.

(3) Ensure that the risk associated with each hazard meets the following criteria:

(i) The likelihood of any hazardous condition that may cause death or serious injury to the public must be extremely remote; and

(ii) The likelihood of any hazardous condition that may cause major damage to public property or critical assets must be remote.

(4) Identify and describe the risk elimination and mitigation measures required to satisfy paragraph (a)(3) of this section.

(5) Demonstrate that the risk elimination and mitigation measures achieve the risk levels of paragraph (a)(3) of this section through validation and verification. Verification includes:

(i) Analysis;

(ii) Test;

(iii) Demonstration; or

(iv) Inspection.

(b) *Identification of new hazards.* An operator must establish and document the criteria and techniques for identifying new hazards throughout the lifecycle of the launch or reentry system.

(c) *Completeness for each flight.* For every launch or reentry, the flight

hazard analysis must be complete and all hazards must be mitigated to an acceptable level in accordance with paragraph (a)(3) of this section.

(d) *Updates throughout the lifecycle.* An operator must continually update the flight hazard analysis throughout the operational lifecycle of the launch or reentry system.

(e) *Application requirements.* An applicant must submit in its application the following:

(1) Flight hazard analysis products of paragraphs (a)(1) through (5) of this section, including data that verifies the risk elimination and mitigation measures resulting from the applicant's flight hazard analyses required by paragraph (a)(5) of this section; and

(2) The criteria and techniques for identifying new hazards throughout the lifecycle of the launch or reentry system as required by paragraph (b) of this section.

§ 450.111 Computing systems and software.

(a) *General.* An operator must implement and document a process that identifies the hazards and assesses the risks to public health and safety and the safety of property arising from computing systems and software.

(b) *Safety-critical functions.* An operator must identify all safety-critical functions associated with its computing systems and software. Safety-critical computing system and software functions include the following:

(1) Software used to control or monitor safety-critical systems;

(2) Software that transmits safety-critical data, including time-critical data and data about hazardous conditions;

(3) Software that computes safety-critical data;

(4) Software that accesses or manages safety-critical data;

(5) Software that displays safety-critical data;

(6) Software used for fault detection in safety-critical computer hardware or software;

(7) Software that responds to the detection of a safety-critical fault;

(8) Software used in a flight safety system;

(9) Processor-interrupt software associated with safety-critical computer system functions; and

(10) Software used for wind weighting.

(c) *Consequence and the degree of control.* Safety-critical functions must be identified by consequence and the degree of control exercised by the software component as defined by paragraphs (d) through (h) of this section.

(d) *Autonomous software.* This section applies to software that exercises autonomous control over safety-critical hardware systems, subsystems, or components, such that a control entity cannot detect and intervene to prevent a hazard that may impact public health and safety or the safety of property. Autonomous software must meet the following criteria:

(1) The software component must be subjected to full path coverage testing. Any inaccessible code must be documented and addressed;

(2) The software component's functions must be tested on flight-like hardware. Testing must include nominal operation and fault responses for all functions;

(3) An operator must conduct computing system and software hazard analyses for the integrated system and for each autonomous, safety-critical software component;

(4) An operator must verify and validate any computing systems and software. Verification and validation must include testing by a test team independent of the software development division or organization; and

(5) An operator must develop and implement software development plans, including descriptions of the following:

(i) Coding standards used;

(ii) Configuration control;

(iii) Programmable logic controllers;

(iv) Policy on use of any commercial-off-the-shelf software; and

(v) Policy on software reuse.

(e) *Semi-autonomous software.* This section applies to software that exercises control over safety-critical hardware systems, subsystems, or components, allowing time for predetermined safe detection and intervention by a control entity to detect and intervene to prevent a hazard that may impact public health and safety or the safety of property. Semi-autonomous software must meet the following criteria:

(1) The software component's safety-critical functions must be subjected to full path coverage testing. Any inaccessible code in a safety-critical function must be documented and addressed;

(2) The software component's safety-critical functions must be tested on flight-like hardware. Testing must include nominal operation and fault responses for all safety-critical functions;

(3) An operator must conduct computing system and software hazard analyses for the integrated system;

(4) An operator must verify and validate any computing systems and software. Verification and validation must include testing by a test team independent of the software development division or organization; and

(5) An operator must develop and implement software development plans, including descriptions of the following:

(i) Coding standards used;

(ii) Configuration control;

(iii) Programmable logic controllers;

(iv) Policy on use of any commercial-off-the-shelf software; and

(v) Policy on software reuse.

(f) *Redundant fault-tolerant software.* This section applies to software that exercises control over safety-critical hardware systems, subsystems, or components, for which a non-software component must also fail in order to impact public health and safety or the safety of property. Redundant fault-tolerant software must meet the following criteria:

(1) The software component's safety-critical functions must be tested on flight-like hardware. Testing must include nominal operation and fault responses for all safety-critical functions;

(2) An operator must conduct computing system and software hazard analyses for the integrated system;

(3) An operator must verify and validate any computing systems and software. Verification and validation must include testing by a test team independent of the software development division or organization; and

(4) An operator must develop and implement software development plans, including descriptions of the following:

(i) Coding standards used;

(ii) Configuration control;

(iii) Programmable logic controllers;

(iv) Policy on use of any commercial-off-the-shelf software; and

(v) Policy on software reuse.

(g) *Influential software.* This section applies to software that provides information to a person who uses the information to take actions or make decisions that can impact public health and safety or the safety of property, but does not require operator action to avoid a mishap. Influential software must meet the following criteria:

(1) An operator must conduct computing system and software hazard analyses for the integrated system;

(2) An operator must verify and validate any computing systems and software. Verification and validation must include testing by a test team independent of the software development division or organization; and

(3) An operator must develop and implement software development plans, including descriptions of the following:

(i) Coding standards used;

(ii) Configuration control;

(iii) Programmable logic controllers;

(iv) Policy on use of any commercial-off-the-shelf software; and

(v) Policy on software reuse.

(h) *Application requirements.* An applicant must document and include in its application the following:

(1) For autonomous software:

(i) Test plans and results as required by paragraphs (d)(1) and (2) of this section;

(ii) All software requirements, and design and architecture documentation;

(iii) The outputs of the hazard analyses as required by paragraph (d)(3) of this section; and

(iv) Computing system and software validation and verification plans as required by paragraph (d)(4) of this section.

(2) For semi-autonomous software:

(i) Test plans and results as required by paragraphs (e)(1) and (2) of this section;

(ii) All software requirements, and design and architecture documentation;

(iii) The outputs of the hazard analyses as required by paragraph (e)(3) of this section; and

(iv) Computing system and software validation and verification plans as required by paragraph (e)(4) of this section.

(3) For redundant fault-tolerant software:

(i) Test plans and results as required by paragraph (f)(1) of this section; and

(ii) All software requirements and design documents.

(4) For influential software:

(i) The software component's development and testing; and

(ii) The software component's functionality.

(5) For software that the applicant has determined to have no safety impact, the software component's functionality must be described in detail.

Flight Safety Analyses

§ 450.113 Flight safety analysis requirements—scope and applicability.

(a) *Scope.* An operator must perform and document a flight safety analysis—

(1) For orbital launch, from liftoff through orbital insertion, and any component or stage landings;

(2) For suborbital launch, from liftoff through final impact;

(3) For disposal, from the beginning of the deorbit burn through final impact;

(4) For reentry, from the beginning of the deorbit burn through landing; and

(5) For hybrid vehicles, for all phases of flight, unless the Administrator determines otherwise based on demonstrated reliability.

(b) *Applicability.* (1) Sections 450.115 through 450.121 and 450.131 through 450.139 apply to all launch and reentry vehicles;

(2) Sections 450.123 through 450.129 apply to a launch or reentry vehicle that relies on flight abort to comply with § 450.101; and

(3) Section 450.141 applies to the launch of an unguided suborbital launch vehicle.

§ 450.115 Flight safety analysis methods.

(a) *Scope of the analysis.* An operator's flight safety analysis method must account for all reasonably foreseeable events and failures of safety-critical systems during nominal and non-nominal launch or reentry that could jeopardize public health and safety, and the safety of property.

(b) *Level of fidelity of the analysis.* An operator's flight safety analysis method must have a level of fidelity sufficient to—

(1) Demonstrate that any risk to the public satisfies the public safety criteria of § 450.101, including the use of mitigations, accounting for all known sources of uncertainty, using a means of compliance accepted by the Administrator; and

(2) Identify the dominant source of each type of public risk with a criterion in § 450.101(a) or (b) in terms of phase of flight, source of hazard (such as toxic exposure, inert, or explosive debris), and vehicle response mode.

(c) *Application requirements.* An applicant must submit a description of the flight safety analysis methodology, including identification of:

(1) The scientific principles and statistical methods used;

(2) All assumptions and their justifications;

(3) The rationale for the level of fidelity;

(4) The evidence for validation and verification required by § 450.101(g);

(5) The extent that the benchmark conditions are comparable to the foreseeable conditions of the intended operations; and

(6) The extent that risk mitigations were accounted for in the analyses.

§ 450.117 Trajectory analysis for normal flight.

(a) *General.* A flight safety analysis must include a trajectory analysis that establishes—

(1) For any phase of flight within the scope as provided by § 450.113(a), the limits of a launch or reentry vehicle's normal flight as defined by the nominal trajectory, and the following sets of trajectories sufficient to characterize variability and uncertainty during normal flight:

(i) A set of trajectories to characterize variability. This set must describe how the intended trajectory could vary due to conditions known prior to initiation of flight; and

(ii) A set of trajectories to characterize uncertainty. This set must describe how the actual trajectory could differ from the intended trajectory due to random uncertainties.

(2) A fuel exhaustion trajectory that produces instantaneous impact points with the greatest range for any given time after liftoff for any stage that has the potential to impact the Earth and does not burn to propellant depletion before a programmed thrust termination.

(3) For vehicles with a flight safety system, trajectory data or parameters that describe the limits of a useful mission.

(b) *Trajectory model.* A final trajectory analysis must use a six-degree of freedom trajectory model to satisfy the requirements of paragraph (a) of this section.

(c) *Wind effects.* A trajectory analysis must account for all wind effects, including profiles of winds that are no less severe than the worst wind conditions under which flight might be attempted, and for uncertainty in the wind conditions.

(d) *Application requirements.* An applicant must submit the following:

(1) A description of the methodology used to characterize the vehicle's flight behavior throughout normal flight and limits of a useful mission, including:

(i) The scientific principles and statistical methods used;

(ii) All assumptions and their justifications;

(iii) The rationale for the level of fidelity, and

(iv) The evidence for validation and verification required by § 450.101(g).

(2) A description of the input data used to characterize the vehicle's flight behavior throughout normal flight and limits of a useful mission, including:

(i) The worst wind conditions under which flight might be attempted, and a description of how the operator will evaluate the wind conditions and uncertainty in the wind conditions prior to initiating the operation;

(ii) A description of the wind input data, including uncertainties;

(iii) A description of the parameters with a significant influence on the vehicle's behavior throughout normal flight, including a quantitative description of the nominal value for

each significant parameter throughout normal flight;

(iv) A description of the random uncertainties with a significant influence on the vehicle's behavior throughout normal flight, including a quantitative description of the statistical distribution for each significant parameter; and

(v) The primary mission objectives and the conditions that describe the limits of a useful mission.

(3) Representative normal flight trajectory analysis outputs, including the position, velocity, and vacuum instantaneous impact point, for each second of flight for—

(i) The nominal trajectory;

(ii) A fuel exhaustion trajectory under otherwise nominal conditions;

(iii) A set of trajectories that characterize variability in the intended trajectory based on conditions known prior to initiation of flight;

(iv) A set of trajectories that characterize how the actual trajectory could differ from the intended trajectory due to random uncertainties, and

(v) A set of trajectories that characterize the limits of a useful mission as described in paragraph (a)(3) of this section.

(4) Additional products that allow an independent analysis, as requested by the Administrator.

§ 450.119 Trajectory analysis for malfunction flight.

(a) *General.* A flight safety analysis must include a trajectory analysis that establishes—

(1) The vehicle's capability to depart from normal flight; and

(2) The vehicle's deviation capability in the event of a malfunction during flight.

(b) *Characterizing foreseeable trajectories.* A malfunction trajectory analysis must account for each cause of a malfunction flight, including software and hardware failures. For each cause of a malfunction trajectory, the analysis must characterize the foreseeable trajectories resulting from a malfunction. The analysis must account for—

(1) All trajectory times during the thrusting phases, or when the lift vector is controlled, during flight;

(2) The duration, starting when a malfunction begins to cause each flight deviation throughout the thrusting phases of flight;

(3) Trajectory time intervals between malfunction turn start times that are sufficient to establish flight safety limits, if any, and individual risk contours that are smooth and continuous;

(4) The relative probability of occurrence of each malfunction turn of which the vehicle is capable;

(5) The probability distribution of position and velocity of the vehicle when each malfunction will terminate due to vehicle breakup, along with the cause of termination and the state of the vehicle; and

(6) The vehicle's flight behavior from the time when a malfunction begins to cause a flight deviation until ground impact or predicted structural failure, with trajectory time intervals that are sufficient to establish individual risk contours that are smooth and continuous.

(c) *Application requirements.* An applicant must submit—

(1) A description of the methodology used to characterize the vehicle's flight behavior throughout malfunction flight, including:

(i) The scientific principles and statistical methods used;

(ii) All assumptions and their justifications;

(iii) The rationale for the level of fidelity; and

(iv) The evidence for validation and verification required by § 450.101(g).

(2) A description of the input data used to characterize the vehicle's malfunction flight behavior, including:

(i) A list of each cause of malfunction flight considered;

(ii) A list of each type of malfunction flight for which malfunction flight behavior was characterized;

(iii) A description of the parameters with a significant influence on the vehicle's behavior throughout malfunction flight for each type of malfunction flight characterized, including a quantitative description of the nominal value for each significant parameter throughout normal flight; and

(iv) A description of the random uncertainties with a significant influence on the vehicle's behavior throughout malfunction flight for each type of malfunction flight characterized, including a quantitative description of the statistical distribution for each significant parameter.

(3) Representative malfunction flight trajectory analysis outputs, including the position, velocity, and vacuum instantaneous impact point for each second of flight for—

(i) Each set of trajectories that characterizes a type of malfunction flight; and

(ii) The probability of each trajectory that characterizes a type of malfunction flight.

(4) Additional products that allow an independent analysis, as requested by the Administrator.

§ 450.121 Debris analysis.

(a) *General.* A flight safety analysis must include a debris analysis that characterizes the debris generated for each foreseeable vehicle response mode as a function of vehicle flight time, accounting for the effects of fuel burn and any configuration changes.

(b) *Vehicle impact or breakup.* A debris analysis must account for each foreseeable cause of vehicle breakup, including any breakup caused by flight safety system activation, and for impact of an intact vehicle.

(c) *Debris thresholds.* A debris analysis must account for all inert, explosive, and other hazardous vehicle, vehicle component, and payload debris foreseeable from normal and malfunctioning vehicle flight. At a minimum, the debris analysis must identify—

(1) All inert debris that can cause a casualty or loss of functionality of a critical asset, including all debris that could—

(i) Impact a human being with a mean expected kinetic energy at impact greater than or equal to 11 ft-lbs;

(ii) Impact a human being with a mean impact kinetic energy per unit area at impact greater than or equal to 34 ft-lb/in^2;

(iii) Cause a casualty due to impact with an aircraft;

(iv) Cause a casualty due to impact with a waterborne vessel; or

(v) Pose a toxic or fire hazard.

(2) Any explosive debris that could cause a casualty or loss of functionality of a critical asset.

(d) *Application requirements.* An applicant must submit:

(1) A description of the debris analysis methodology, including input data, assumptions, and justifications for the assumptions;

(2) A description of all vehicle breakup modes and the development of debris lists;

(3) All debris fragment lists necessary to quantitatively describe the physical, aerodynamic, and harmful characteristics of each debris fragment or fragment class; and

(4) Additional products that allow an independent analysis, as requested by the Administrator.

§ 450.123 Flight safety limits analysis.

(a) *General.* A flight safety analysis must identify the location of uncontrolled areas and establish flight safety limits that define when an operator must initiate flight abort to—

(1) Ensure compliance with the public safety criteria of § 450.101; and

(2) Prevent debris capable of causing a casualty from impacting in

uncontrolled areas if the vehicle is outside the limits of a useful mission.

(b) *Flight safety limits.* The analysis must identify flight safety limits for use in establishing flight abort rules. The flight safety limits must—

(1) Account for temporal and geometric extents on the Earth's surface of any vehicle hazards resulting from any planned or unplanned event for all times during flight;

(2) Account for potential contributions to the debris impact dispersions; and

(3) Be designed to avoid flight abort that results in increased collective risk to people in uncontrolled areas, compared to continued flight.

(c) *Gates.* For an orbital launch, or any launch or reentry where one or more trajectories that represents a useful mission intersects a flight safety limit that provides containment of debris capable of causing a casualty, the flight safety analysis must include a gate analysis as required by § 450.125.

(d) *Real-time flight safety limits.* As an alternative to flight safety limits analysis, flight abort time can be computed and applied in real-time during vehicle flight as necessary to meet the criteria in § 450.101.

(e) *Application requirements.* An applicant must submit:

(1) A description of how each flight safety limit will be computed including references to public safety criteria of § 450.101;

(2) Representative flight safety limits and associated parameters;

(3) An indication of which flight abort rule from § 450.165(c) is used in conjunction with each example flight safety limit;

(4) A graphic depiction or series of depictions of representative flight safety limits, the launch or landing point, all uncontrolled area boundaries, and vacuum instantaneous impact point traces for the nominal trajectory, extents of normal flight, and limits of a useful mission trajectories;

(5) If the requirement for flight abort is computed in real-time in lieu of precomputing flight safety limits, a description of how the real-time flight abort requirement is computed including references to public safety criteria of § 450.101; and

(6) Additional products that allow an independent analysis, as requested by the Administrator.

§ 450.125 Gate analysis.

(a) *Applicability.* The flight safety analysis must include a gate analysis for an orbital launch or any launch or reentry where one or more trajectories that represent a useful mission intersect a flight safety limit that provides containment of debris capable of causing a casualty.

(b) *Analysis requirements.* The analysis must establish—

(1) A relaxation of the flight safety limits that allows continued flight or a gate where a decision will be made to abort the launch or reentry, or allow continued flight;

(2) If a gate is established, a measure of performance at the gate that enables the flight abort crew or autonomous flight safety system to determine whether the vehicle is able to complete a useful mission, and abort the flight if it is not;

(3) Accompanying flight abort rules; and

(4) For an orbital launch, a gate at the last opportunity to determine whether the vehicle's flight is in compliance with the flight abort rules and can make a useful mission, and abort the flight if it is not.

(c) *Gate extents.* The extents of any gate or relaxation of the flight safety limits must be based on normal trajectories, trajectories that may achieve a useful mission, collective risk, and consequence criteria as follows:

(1) Flight safety limits must be gated or relaxed where they intersect with a normal trajectory if that trajectory would meet the individual and collective risk criteria of § 450.101(a)(1) and (2) or (b)(1) and (2) when treated like a nominal trajectory with normal trajectory dispersions. The predicted average consequence from flight abort resulting from any reasonable vehicle response mode, in any one-second period of flight, using the modified flight safety limits, must not exceed 1×10^{-2} conditional expected casualties;

(2) Flight safety limits may be gated or relaxed where they intersect with a trajectory within the limits of a useful mission if that trajectory would meet the individual and collective risk criteria of § 450.101(a)(1) and (2) or (b)(1) and (2) when treated like a nominal trajectory with normal trajectory dispersions. The predicted average consequence from flight abort resulting from any reasonable vehicle response mode, in any one-second period of flight, using the modified flight safety limits, must not exceed 1×10^{-2} conditional expected casualties; and

(3) For an orbital launch, in areas where no useful mission trajectories intersect with flight safety limits, the final gate may extend no further than necessary to allow vehicles on a useful mission to continue flight.

(d) *Application requirements.* An applicant must submit:

(1) A description of the methodology used to establish each gate or relaxation of a flight safety limit;

(2) A description of the measure of performance used to determine whether a vehicle will be allowed to cross a gate without flight abort, the acceptable ranges of the measure of performance, and how these ranges were determined;

(3) A graphic depiction or depictions showing representative flight safety limits, any uncontrolled area overflight regions, and instantaneous impact point traces for the nominal trajectory, extents of normal flight, and limits of a useful mission trajectories; and

(4) Additional products that allow an independent analysis, as requested by the Administrator.

§ 450.127 Data loss flight time and planned safe flight state analyses.

(a) *General.* For each flight, a flight safety analysis must establish data loss flight times and a planned safe flight state to establish each flight abort rule that applies when vehicle tracking data is not available for use by the flight abort crew or autonomous flight safety system.

(b) *Data loss flight times.* (1) A flight safety analysis must establish a data loss flight time for each trajectory time interval along the nominal trajectory from initiation of the flight of a launch or reentry vehicle through that point during nominal flight when the minimum elapsed thrusting or gliding time is no greater than the time it would take for a normal vehicle to reach the final gate crossing, or the planned safe flight state established under paragraph (c) of this section, whichever occurs earlier.

(2) Data loss flight times must account for forces that may stop the vehicle before reaching a flight safety limit.

(3) Data loss flight times may be computed and applied in real-time during vehicle flight in which case the state vector just prior to loss of data should be used as the nominal state vector.

(c) *Planned safe flight state.* For a vehicle that performs normally during all portions of flight, the planned safe flight state is the point during the nominal flight of a vehicle where—

(1) The vehicle cannot reach a flight safety limit for the remainder of the flight;

(2) The vehicle achieves orbital insertion; or

(3) The vehicle's state vector reaches a state where the vehicle is no longer required to have a flight safety system.

(d) *Application requirements.* An applicant must submit:

(1) A description of the methodology used to determine data loss flight times;

(2) Tabular data describing the data loss flight times from a representative mission;

(3) The safe flight state for a representative mission and methodology used to determine it; and

(4) Additional products that allow an independent analysis, as requested by the Administrator.

§ 450.129 Time delay analysis.

(a) *General.* A flight safety analysis must include a time delay analysis that establishes the mean elapsed time between the violation of a flight abort rule and the time when the flight safety system is capable of aborting flight for use in establishing flight safety limits. The time delay analysis must determine a time delay distribution that accounts for all foreseeable sources of delay.

(b) *Application requirements.* An applicant must submit:

(1) A description of the methodology used in the time delay analysis;

(2) A tabular listing of each time delay source and the total delay, with uncertainty; and

(3) Additional products that allow an independent analysis, as requested by the Administrator.

§ 450.131 Probability of failure analysis.

(a) *General.* For each hazard and phase of flight, a flight safety analysis for a launch or reentry must account for vehicle failure probability. The probability of failure must be consistent for all hazards and phases of flight.

(1) For a vehicle or vehicle stage with fewer than two flights, the failure probability estimate must account for the outcome of all previous flights of vehicles developed and launched or reentered in similar circumstances.

(2) For a vehicle or vehicle stage with two or more flights, vehicle failure probability estimates must account for the outcomes of all previous flights of the vehicle or vehicle stage in a statistically valid manner. The outcomes of all previous flights of the vehicle or vehicle stage must account for data on partial failures and anomalies, including Class 3 and Class 4 mishaps, as defined in § 401.5 of this chapter.

(b) *Failure.* For flight safety analysis purposes, a failure occurs when a vehicle does not complete any phase of normal flight or when any anomalous condition exhibits the potential for a stage or its debris to impact the Earth or reenter the atmosphere outside the normal trajectory envelope during the mission or any future mission of similar vehicle capability. Also, a Class 1 or Class 2 mishap, as defined in § 401.5 of this chapter, constitutes a failure.

(c) *Previous flight.* For flight safety analysis purposes—

(1) The flight of a launch vehicle begins at a time in which a launch vehicle normally or inadvertently lifts off from a launch platform; and

(2) The flight of a reentry vehicle or deorbiting upper stage begins at a time in which a vehicle attempts to initiate a deorbit.

(d) *Allocation.* The vehicle failure probability estimate must be distributed across flight time and vehicle response mode. The distribution must be consistent with—

(1) The data available from all previous flights of vehicles developed and launched or reentered in similar circumstances; and

(2) Data from previous flights of vehicles, stages, or components developed and launched or reentered by the subject vehicle developer or operator. Such data may include previous experience involving similar—

(i) Vehicle, stage, or component design characteristics;

(ii) Development and integration processes, including the extent of integrated system testing; and

(iii) Level of experience of the vehicle operation and development team members.

(e) *Observed vs. conditional failure rate.* Probability of failure allocation must account for significant differences in the observed failure rate and the conditional failure rate. A probability of failure analysis must use a constant conditional failure rate for each phase of flight, unless there is clear and convincing evidence of a different conditional failure rate for a particular vehicle, stage, or phase of flight.

(f) *Application requirements.* An applicant must submit:

(1) A description of the probability of failure analysis, including all assumptions and justifications for the assumptions, analysis methods, input data, and results;

(2) A representative set of tabular data and graphs of the predicted failure rate and cumulative failure probability for each foreseeable vehicle response mode; and

(3) Additional products that allow an independent analysis, as requested by the Administrator.

§ 450.133 Flight hazard area analysis.

(a) *General.* A flight safety analysis must include a flight hazard area analysis that identifies any region of land, sea, or air that must be surveyed, publicized, controlled, or evacuated in order to control the risk to the public. A flight hazard area analysis must account for all reasonably foreseeable vehicle response modes during nominal and non-nominal flight that could result in a casualty. The analysis must account for, at a minimum—

(1) The regions of land, sea, and air potentially exposed to debris impact resulting from normal flight events and from debris hazards resulting from any potential malfunction;

(2) Any hazard controls implemented to control risk to any hazard;

(3) The limits of a launch or reentry vehicle's normal flight, including winds that are no less severe than the worst wind conditions under which flight might be attempted and uncertainty in the wind conditions;

(4) The debris identified for each foreseeable cause of breakup, and any planned jettison of debris, launch or reentry vehicle components, or payload;

(5) All foreseeable sources of debris dispersion during freefall, including wind effects, guidance and control, velocity imparted by break-up or jettison, lift, and drag forces; and

(6) A probability of one for any planned debris hazards or planned impacts.

(b) *Waterborne vessel hazard areas.* The flight hazard area analysis for waterborne vessels must determine the areas and durations for regions of water—

(1) That are necessary to contain, with 97 percent probability of containment, all debris resulting from normal flight events capable of causing a casualty to persons on waterborne vessels;

(2) That are necessary to contain either where the probability of debris capable of causing a casualty impacting on or near a vessel would exceed 1×10^{-5}, accounting for all relevant hazards, or where the individual probability of casualty for any person on board a vessel would exceed the criterion in § 450.101(a)(2) or (b)(2); and

(3) Where reduced vessel traffic is necessary to meet collective risk criterion in § 450.101(a)(1) or (b)(1).

(c) *Land hazard areas.* The flight hazard area analysis for land must determine the durations and areas regions of land—

(1) That are necessary to contain, with 97 percent probability of containment, all debris resulting from normal flight events capable of causing a casualty to any person on land;

(2) Where the individual probability of casualty for any person on land would exceed the criterion in § 450.101(a)(2) or (b)(2); and

(3) Where reduced population is necessary to meet the collective risk criterion in § 450.101(a)(1) or (b)(1).

(d) *Airspace hazard volumes.* The flight hazard area analysis for airspace must determine the durations and

volumes for regions of air to be submitted to the FAA for approval—

(1) That are necessary to contain, with 97 percent probability of containment, all debris resulting from normal flight events capable of causing a casualty to persons on an aircraft; and

(2) Where the probability of impact on an aircraft would exceed the criterion in § 450.101(a)(3) or (b)(3).

(e) *Application requirements.* An applicant must submit:

(1) A description of the methodology to be used in the flight hazard area analysis including all assumptions and justifications for the assumptions, vulnerability models, analysis methods, input data, including:

(i) Input wind data and justification that those represent the worst wind conditions under which flight might be attempted accounting for uncertainty in the wind conditions;

(ii) Classes of waterborne vessel and vulnerability criteria employed; and

(iii) Classes of aircraft and vulnerability criteria employed.

(2) Tabular data and graphs of the results of the flight hazard area analysis, including:

(i) Geographical coordinates of all hazard areas that are representative of those to be published prior to any proposed operation;

(ii) Representative 97 percent probability of containment contours for all debris resulting from normal flight events capable of causing a casualty, regardless of location, including regions of land, sea, or air;

(iii) Representative individual probability of casualty contours regardless of location;

(iv) If applicable, representative 1×10^{-5} and 1×10^{-6} probability of impact contours for all debris capable of causing a casualty to persons on an waterborne vessel regardless of location; and

(v) Representative 1×10^{-6} and 1×10^{-7} probability of impact contours for all debris capable of causing a casualty to persons on an aircraft regardless of location.

(3) Additional products that allow an independent analysis, as requested by the Administrator.

§ 450.135 Debris risk analysis.

(a) *General.* A debris risk analysis must demonstrate compliance with public safety criteria in § 450.101, either—

(1) Prior to the day of the operation, accounting for all foreseeable conditions within the flight commit criteria; or

(2) During the countdown using the best available input data.

(b) *Propagation of debris.* A debris risk analysis must compute statistically valid debris impact probability distributions using the input data produced by flight safety analyses required in §§ 450.117 through 450.133. The propagation of debris from each predicted breakup location to impact must account for—

(1) All foreseeable forces that can influence any debris impact location; and

(2) All foreseeable sources of impact dispersion, including, at a minimum:

(i) The uncertainties in atmospheric conditions;

(ii) Debris aerodynamic parameters;

(iii) Pre-breakup position and velocity; and

(iv) Breakup-imparted velocities.

(c) *Exposure model.* A debris risk analysis must account for the distribution of people and critical assets. The exposure input data must—

(1) Include the entire region where there is a significant probability of impact of hazardous debris;

(2) Characterize the distribution and vulnerability of people and critical assets both geographically and temporally;

(3) Account for the distribution of people in various structures and vehicle types with a resolution consistent with the characteristic size of the impact probability distributions for relevant fragment groups;

(4) Have sufficient temporal and spatial resolution that a uniform distribution of people within each defined region can be treated as a single average set of characteristics without degrading the accuracy of any debris analysis output;

(5) Use accurate source data from demographic sources, physical surveys, or other methods;

(6) Be regularly updated to account for recent land-use changes, population growth, migration, and construction; and

(7) Account for uncertainty in the source data and modeling approach.

(d) *Casualty area and consequence analysis.* A debris risk analysis must model the casualty area, and compute the predicted consequences of each reasonably foreseeable vehicle response mode in any one-second period of flight in terms of conditional expected casualties. The casualty area and consequence analysis must account for—

(1) All relevant debris fragment characteristics and the characteristics of a representative person exposed to any potential debris hazard.

(2) Any direct impacts of debris fragments, intact impact, or indirect impact effects.

(3) The vulnerability of people and critical assets to debris impacts, including:

(i) Effects of buildings, ground vehicles, waterborne vessel, and aircraft upon the vulnerability of any occupants;

(ii) All hazard sources, such as the potential for any toxic or explosive energy releases;

(iii) Indirect or secondary effects such as bounce, splatter, skip, slide or ricochet, including accounting for terrain;

(iv) Effect of wind on debris impact vector and toxic releases;

(v) Impact speed and angle, accounting for motion of impacted vehicles;

(vi) Uncertainty in fragment impact parameters; and

(vii) Uncertainty in modeling methodology.

(e) *Application requirements.* An applicant must submit:

(1) A description of the methods used to compute the parameters required to demonstrate compliance with the public safety criteria in § 450.101, including a description of how the operator will account for the conditions immediately prior to enabling the flight of a launch vehicle or the reentry of a reentry vehicle, such as the final trajectory, atmospheric conditions, and the exposure of people and critical assets;

(2) A description of the methods used to compute debris impact distributions;

(3) A description of the methods used to develop the population exposure input data;

(4) A description of the exposure input data, including, for each population center, a geographic definition and the distribution of population among shelter types as a function of time of day, week, month, or year;

(5) A description of the atmospheric data used as input to the debris risk analysis;

(6) The effective unsheltered casualty area for all fragment classes assuming a representative impact vector;

(7) The effective casualty area for all fragment classes for a representative type of building, ground vehicle, waterborne vessel, and aircraft, assuming a representative impact vector;

(8) Collective and individual debris risk analysis outputs under representative conditions and the worst foreseeable conditions, including:

(i) Total collective casualty expectation for the proposed operation;

(ii) A list of the collective risk contribution for at least the top ten population centers and all centers with collective risk exceeding 1 percent of the collective risk criterion in § 450.101;

(iii) A list of the maximum individual probability of casualty for the top ten population centers and all centers that exceed 10 percent of the individual risk criterion in § 450.101; and

(iv) A list of the probability of loss of functionality of any critical asset that exceeds 1 percent of the critical asset criterion in § 450.101;

(9) A list of the conditional collective casualty expectation for each vehicle response mode for each one-second interval of flight under representative conditions and the worst foreseeable conditions; and

(10) Additional products that allow an independent analysis, as requested by the Administrator.

§ 450.137 Far-field overpressure blast effects analysis.

(a) *General.* The far-field overpressure blast effect analysis must demonstrate compliance with public safety criteria in § 450.101, either—

(1) Prior to the day of the operation, accounting for all foreseeable conditions within the flight commit criteria; or

(2) During the countdown using the best available input data.

(b) *Analysis constraints.* The analysis must account for—

(1) The potential for distant focus overpressure or overpressure enhancement given current meteorological conditions and terrain characteristics;

(2) The potential for broken windows due to peak incident overpressures below 1.0 psi and related casualties;

(3) The explosive capability of the vehicle at impact and at altitude and potential explosions resulting from debris impacts, including the potential for mixing of liquid propellants;

(4) Characteristics of the vehicle flight and the surroundings that would affect the population's susceptibility to injury, including shelter types and time of day of the proposed operation;

(5) Characteristics of the potentially affected windows, including their size, location, orientation, glazing material, and condition; and

(6) The hazard characteristics of the potential glass shards, including falling from upper building stories or being propelled into or out of a shelter toward potentially occupied spaces.

(c) *Application requirements.* An applicant must submit a description of the far-field overpressure analysis, including all assumptions and justifications for the assumptions, analysis methods, input data, and results. At a minimum, the application must include:

(1) A description of the population centers, terrain, building types, and window characteristics used as input to the far-field overpressure analysis;

(2) A description of the methods used to compute the foreseeable explosive yield probability pairs, and the complete set of yield-probability pairs, used as input to the far-field overpressure analysis;

(3) A description of the methods used to compute peak incident overpressures as a function of distance from the explosion and prevailing meteorological conditions, including sample calculations for a representative range of the foreseeable meteorological conditions, yields, and population center locations;

(4) A description of the methods used to compute the probability of window breakage, including tabular data and graphs for the probability of breakage as a function of the peak incident overpressure for a representative range of window types, building types, and yields accounted for;

(5) A description of the methods used to compute the probability of casualty for a representative individual, including tabular data and graphs for the probability of casualty, as a function of location relative to the window and the peak incident overpressure for a representative range of window types, building types, and yields accounted for;

(6) Tabular data and graphs showing the hypothetical location of any member of the public that could be exposed to a probability of casualty of 1×10^{-5} or greater for neighboring operations personnel, and 1×10^{-6} or greater for other members of the public, given foreseeable meteorological conditions, yields, and population exposures;

(7) The maximum expected casualties that could result from far-field overpressure hazards greater given foreseeable meteorological conditions, yields, and population exposures;

(8) A description of the meteorological measurements used as input to any real-time far-field overpressure analysis; and

(9) Additional products that allow an independent analysis, as requested by the Administrator.

§ 450.139 Toxic hazards for flight.

(a) *Applicability.* This section applies to any launch or reentry vehicle, including all vehicle components and payloads, that use toxic propellants or other toxic chemicals.

(b) *General.* An operator must—

(1) Conduct a toxic release hazard analysis in accordance with paragraph (c) of this section;

(2) Manage the risk of casualties that could arise from the exposure to toxic release through one of the following means:

(i) Contain hazards caused by toxic release in accordance with paragraph (d) of this section; or

(ii) Perform a toxic risk assessment, in accordance with paragraph (e) of this section, that protects the public in compliance with the risk criteria of § 450.101, including toxic release hazards.

(3) Establish flight commit criteria based on the results of its toxic release hazard analysis, containment analysis, or toxic risk assessment for any necessary evacuation of the public from any toxic hazard area.

(c) *Toxic release hazard analysis.* A toxic release hazard analysis must—

(1) Account for any toxic release that could occur during nominal or non-nominal flight;

(2) Include a worst-case release scenario analysis or a maximum-credible release scenario analysis;

(3) Determine if toxic release can occur based on an evaluation of the chemical compositions and quantities of propellants, other chemicals, vehicle materials, and projected combustion products, and the possible toxic release scenarios;

(4) Account for both normal combustion products and any unreacted propellants and phase change or chemical derivatives of released substances; and

(5) Account for any operational constraints and emergency procedures that provide protection from toxic release.

(d) *Toxic containment.* An operator using toxic containment must manage the risk of any casualty from the exposure to toxic release either by—

(1) Evacuating, or being prepared to evacuate, the public from a toxic hazard area, where an average member of the public would be exposed to greater than one percent conditional individual probability of casualty in the event of a worst-case release or maximum credible release scenario; or

(2) Employing meteorological constraints to limit a launch operation to times during which prevailing winds and other conditions ensure that an average member of the public would not be exposed to greater than one percent conditional individual probability of casualty in the event of a worst-case release or maximum credible release scenario.

(e) *Toxic risk assessment.* An operator using toxic risk assessment must establish flight commit criteria that demonstrate compliance with the public risk criterion of § 450.101. A toxic risk assessment must—

(1) Account for airborne concentration and duration thresholds of toxic propellants or other chemicals. For any toxic propellant, other chemicals, or combustion product, an operator must use airborne toxic concentration and duration thresholds identified in a means of compliance accepted by the Administrator;

(2) Account for physical phenomena expected to influence any toxic concentration and duration in the area surrounding the potential release site;

(3) Determine a toxic hazard area for the launch or reentry, surrounding the potential release site for each toxic propellant or other chemical based on the amount and toxicity of the propellant or other chemical, the exposure duration, and the meteorological conditions involved;

(4) Account for all members of the public that may be exposed to the toxic release, including all members of the public on land and on any waterborne vessels, populated offshore structures, and aircraft that are not operated in direct support of the launch or reentry; and

(5) Account for any risk mitigation measures applied in the risk assessment.

(f) *Application requirements.* An applicant must submit:

(1) The identity of toxic propellant, chemical, or combustion products or derivatives in the possible toxic release;

(2) The applicant's selected airborne toxic concentration and duration thresholds;

(3) The meteorological conditions for the atmospheric transport and buoyant cloud rise of any toxic release from its source to downwind receptor locations;

(4) Characterization of the terrain, as input for modeling the atmospheric transport of a toxic release from its source to downwind receptor locations;

(5) The identity of the toxic dispersion model used, and any other input data;

(6) Representative results of an applicant's toxic dispersion modeling to predict concentrations and durations at selected downwind receptor locations, to determine the toxic hazard area for a released quantity of the toxic substance;

(7) For toxic release hazard analysis in accordance with paragraph (c) of this section:

(i) A description of the failure modes and associated relative probabilities for potential toxic release scenarios used in the risk evaluation; and

(ii) The methodology and representative results of an applicant's determination of the worst-case or maximum-credible quantity of any toxic release that might occur during the flight of a vehicle;

(8) For toxic risk assessment in accordance with paragraph (e) of this section:

(i) A demonstration that the public will not be exposed to airborne concentrations above the toxic concentration and duration thresholds, based upon representative results of the toxic release hazard analysis;

(ii) The population density in receptor locations that are identified by toxic dispersion modeling as toxic hazard areas;

(iii) A description of any risk mitigations applied in the toxic risk assessment; and

(iv) The identity of the population database used; and

(9) Additional products that allow an independent analysis, as requested by the Administrator.

§ 450.141 Wind weighting for the flight of an unguided suborbital launch vehicle.

(a) *Applicability.* This section applies to the flight of an unguided suborbital launch vehicle using wind weighting to meet the public safety criteria of § 450.101.

(b) *Wind weighting safety system.* The flight of an unguided suborbital launch vehicle that uses a wind weighting safety system must meet the following:

(1) The launcher azimuth and elevation settings must be wind weighted to correct for the effects of wind conditions at the time of flight to provide a safe impact location; and

(2) An operator must use launcher azimuth and elevation angle settings that ensures the rocket will not fly in an unintended direction given wind uncertainties.

(c) *Analysis.* An operator must—

(1) Establish flight commit criteria and other flight safety rules that control the risk to the public from potential adverse effects resulting from normal and malfunctioning flight;

(2) Establish any wind constraints under which flight may occur; and

(3) Conduct a wind weighting analysis that establishes the launcher azimuth and elevation settings that correct for the windcocking and wind-drift effects on the unguided suborbital launch vehicle.

(d) *Stability.* An unguided suborbital launch vehicle, in all configurations, must be stable throughout each stage of powered flight.

(e) *Application requirements.* An applicant must submit:

(1) A description of its wind weighting analysis methods, including its method and schedule of determining wind speed and wind direction for each altitude layer;

(2) A description of its wind weighting safety system and identify all equipment used to perform the wind weighting analysis;

(3) A representative wind weighting analysis using actual or statistical winds for the launch area and provide samples of the output; and

(4) Additional products that allow an independent analysis, as requested by the Administrator.

Prescribed Hazard Controls

§ 450.143 Safety-critical system design, test, and documentation.

(a) *Applicability.* This section applies to all safety-critical systems. Flight safety systems that are required to meet the requirements of § 450.101(c) must meet additional requirements in § 450.145.

(b) *Fault-tolerant design.* An operator must design safety-critical systems to be fault-tolerant such that there is no single credible fault that can lead to increased risk to public safety beyond nominal safety-critical system operation.

(c) *Qualification testing of design.* An operator must functionally demonstrate the design of the vehicle's safety-critical systems at conditions beyond its predicted operating environment. The operator must select environmental test levels that ensure the design is sufficiently stressed to demonstrate that system performance is not degraded due to design tolerances, manufacturing variances, or uncertainties in the environment.

(d) *Acceptance of hardware.* An operator must—

(1) Functionally demonstrate any safety-critical system while exposed to its predicted operating environment with margin to demonstrate that it is free of defects, free of integration and workmanship errors, and ready for operational use; or

(2) Combine in-process controls and a quality assurance process to ensure functional capability of any safety-critical system during its service life.

(e) *Lifecycle of safety-critical systems.* (1) The predicted operating environment must be based on conditions predicted to be encountered in all phases of flight, recovery, and transportation.

(2) An operator must monitor the flight environments experienced by safety-critical system components to the extent necessary to—

(i) Validate the predicted operating environment; and

(ii) Assess the actual component life remaining or adjust any inspection period.

(f) *Application requirements.* An applicant must submit to the FAA the following as part of its application:

(1) A list and description of each safety-critical system;

(2) Drawings and schematics for each safety-critical system;

(3) A summary of the analysis to determine the predicted operating environment and duration to be applied to qualification and acceptance testing covering the service life of any safety-critical system;

(4) A description of any instrumentation or inspection processes to monitor aging of any safety-critical system; and

(5) The criteria and procedures for disposal or refurbishment for service life extension of safety-critical system components.

§ 450.145 Flight safety system.

(a) *General.* For each phase of flight for which an operator must implement flight abort to meet the requirement of § 450.101(c), the operator must use a flight safety system, or other safeguards agreed to by the Administrator, on the launch or reentry vehicle, vehicle component, or payload with the following reliability:

(1) If the consequence any vehicle response mode is 1×10^{-2} conditional expected casualties or greater for uncontrolled areas, an operator must employ a flight safety system with design reliability of 0.999 at 95 percent confidence and commensurate design, analysis, and testing; or

(2) If the consequence of any vehicle response mode is between 1×10^{-2} and 1×10^{-3} conditional expected casualties for uncontrolled areas, an operator must employ a flight safety system with a design reliability of 0.975 at 95 percent confidence and commensurate design, analysis, and testing.

(b) *Accepted means of compliance.* To comply with paragraph (a) of this section, an applicant must use a means of compliance accepted by the Administrator.

(c) *Monitoring.* An operator must monitor the flight environments experienced by any flight safety system component.

(d) *Application requirements.* An applicant must submit the information identified in paragraphs (d)(1) through (5) of this section, for any flight safety system including any flight safety system located on board a launch or reentry vehicle; any ground based command control system; any support system, including telemetry subsystems and tracking subsystems, necessary to support a flight abort decision; and the functions of any personnel who operate the flight safety system hardware or software:

(1) *Flight safety system description.* An applicant must describe the flight safety system and its operation in detail, including all components, component functions, and possible operational scenarios.

(2) *Flight safety system diagram.* An applicant must submit a diagram that identifies all flight safety system subsystems and shows the interconnection of all the elements of the flight safety system. The diagram must include any subsystems used to implement flight abort both on and off the vehicle, including any subsystems used to make the decision to abort flight.

(3) *Flight safety system analyses.* An applicant must submit any analyses and detailed analysis reports of all flight safety system subsystems necessary to demonstrate the reliability and confidence levels required by paragraph (a) of this section.

(4) *Tracking validation procedures.* An applicant must document and submit the procedures for validating the accuracy of any vehicle tracking data utilized by the flight safety system to make the decision to abort flight.

(5) *Flight safety system test plans.* An applicant must submit acceptance, qualification, and preflight test plans of any flight safety system, subsystems, and components. The test plans must include test procedures and test environments.

§ 450.147 Agreements.

(a) *General.* An operator must establish a written agreement with any entity that provides a service or property that meets a requirement in this part, including:

(1) *Launch and reentry site use agreements.* A Federal launch range operator, a licensed launch or reentry site operator, or any other person that provides services or access to or use of property required to support the safe launch or reentry under this part;

(2) *Agreements for notices to mariners.* Unless otherwise addressed in agreements with the site operator, for overflight of navigable water, the U.S. Coast Guard or other applicable maritime authority to establish procedures for the issuance of a Notice to Mariners prior to a launch or reentry and other measures necessary to protect public health and safety;

(3) *Agreements for notices to airmen.* Unless otherwise addressed in agreements with the site operator, the FAA Air Traffic Organization or other applicable air navigation authority to establish procedures for the issuance of a Notice to Airmen prior to a launch or reentry, for closing of air routes during the respective launch and reentry windows, and for other measures necessary to protect public health and safety; and

(4) *Mishap response.* Emergency response providers, including local government authorities, to satisfy the requirements of § 450.173.

(b) *Roles and responsibilities.* The agreements required in this section must clearly delineate the roles and responsibilities of each party to support the safe launch or reentry under this part.

(c) *Effective date.* The agreements required in this section must be in effect before a license can be issued, unless otherwise agreed to by the Administrator.

(d) *Application requirement.* The applicant must describe each agreement in this section. The applicant must provide a copy of any agreement, or portion thereof, to the FAA upon request.

§ 450.149 Safety-critical personnel qualifications.

(a) *Qualification requirements.* An operator must ensure safety-critical personnel are trained, qualified, and capable of performing their safety-critical tasks, and that their training is current.

(b) *Application requirements.* An applicant must—

(1) Identify safety-critical tasks that require qualified personnel;

(2) Provide internal training and currency requirements, completion standards, or any other means of demonstrating compliance with the requirements of this section; and

(3) Describe the process for tracking training currency.

§ 450.151 Work shift and rest requirements.

(a) *General.* For any launch or reentry, an operator must document and implement rest requirements that ensure safety-critical personnel are physically and mentally capable of performing all assigned tasks.

(b) *Specific items to address.* An operator's rest requirements must address the following:

(1) Duration of each work shift and the process for extending this shift, including the maximum allowable length of any extension;

(2) Number of consecutive work shift days allowed before rest is required;

(3) Minimum rest period required—

(i) Between each work shift, including the period of rest required immediately before the flight countdown work shift; and

(ii) After the maximum number of work shift days allowed; and

(4) Approval process for any deviation from the rest requirements.

(c) *Application requirements.* An applicant must submit rest rules that demonstrate compliance with the requirements of this section.

§ 450.153 Radio frequency management.

(a) *Frequency management.* For any radio frequency used, an operator must—

(1) Identify each frequency, all allowable frequency tolerances, and each frequency's intended use, operating power, and source;

(2) Provide for the monitoring of frequency usage and enforcement of frequency allocations; and

(3) Coordinate use of radio frequencies with any site operator and any local and Federal authorities.

(b) *Application requirements.* An applicant must submit procedures or other means to demonstrate compliance with the radio frequency requirements of this section.

§ 450.155 Readiness.

(a) *Flight readiness.* An operator must document and implement procedures to assess readiness to proceed with the flight of a launch or reentry vehicle. These procedures must address, at minimum, the following:

(1) Readiness of vehicle and launch, reentry, or landing site, including any contingency abort location;

(2) Readiness of safety-critical personnel, systems, software, procedures, equipment, property, and services; and

(3) Readiness to implement the mishap plan required by § 450.173.

(b) *Application requirements.* An applicant must—

(1) Demonstrate compliance with the requirements of paragraph (a) of this section through procedures that may include a readiness meeting close in time to flight; and

(2) Describe the criteria for establishing readiness to proceed with the flight of a launch or reentry vehicle.

§ 450.157 Communications.

(a) *Communication procedures.* An operator must implement communication procedures during the countdown and flight of a launch or reentry vehicle that—

(1) Define the authority of personnel, by individual or position title, to issue ''hold/resume,'' ''go/no go,'' and abort commands;

(2) Assign communication networks so that personnel identified in paragraph (a)(1) of this section have direct access to real-time safety-critical information required to issue ''hold/resume,'' ''go/no go,'' and any abort commands;

(3) Ensure personnel, identified in paragraph (a)(1) of this section, monitor each common intercom channel during countdown and flight; and

(4) Implement a protocol for using defined radio telephone communications terminology.

(b) *Currency.* An operator must ensure the currency of the communication procedures, and that all personnel are working with the approved version of the communication procedures.

(c) *Communication records.* An operator must record all safety-critical communications network channels that are used for voice, video, or data transmissions that support safety critical systems during each countdown.

§ 450.159 Preflight procedures.

(a) *Preflight procedures.* An operator must implement preflight procedures that—

(1) Verify that each flight commit criterion is satisfied before flight is initiated; and

(2) Ensure the operator can return the vehicle to a safe state after a countdown abort or delay.

(b) *Currency.* An operator must ensure the currency of the preflight procedures, and that all personnel are working with the approved version of the preflight procedures.

§ 450.161 Surveillance and publication of hazard areas.

(a) *General.* The operator must publicize, survey, and evacuate each flight hazard area prior to initiating flight of a launch vehicle or the reentry of a reentry vehicle to the extent necessary to ensure compliance with § 450.101.

(b) *Verification.* The launch or reentry operator must perform surveillance sufficient to verify or update the assumptions, input data, and results of the flight safety analyses.

(c) *Publication.* An operator must publicize warnings for each flight hazard area, except for regions of land, sea, or air under the control of the vehicle operator, site operator, or other entity by agreement. If the operator relies on another entity to publicize these warnings, it must verify that the warnings have been issued.

(d) *Application requirements.* An applicant must submit:

(1) A description of how it will provide for day-of-flight surveillance of flight hazard areas, if necessary, to ensure that the presence of any member of the public in or near a flight hazard area is consistent with flight commit criteria developed for each launch or reentry as required by § 450.165(b); and

(2) A description of how it will establish flight commit criteria based on the results of its toxic release hazard analysis, containment analysis, or toxic risk assessment for any necessary evacuation of the public from any toxic hazard area.

§ 450.163 Lightning hazard mitigation.

(a) *Lighting hazard mitigation.* An operator must—

(1) Establish flight commit criteria that mitigate the potential for a launch or reentry vehicle intercepting or initiating a lightning strike, or encountering a nearby discharge, using a means of compliance accepted by the Administrator;

(2) Use a vehicle designed to continue safe flight in the event of a direct lightning strike or nearby discharge; or

(3) Ensure compliance with § 450.101, given any direct lightning strike or an encounter with a nearby discharge.

(b) *Application requirements.* (1) An applicant electing to comply with paragraph (a)(1) of this section must submit flight commit criteria that mitigate the potential for a launch or reentry vehicle intercepting or initiating a direct lightning strike, or encountering a nearby lightning discharge.

(2) An applicant electing to comply with paragraph (a)(2) of this section must submit documentation providing evidence that the vehicle is designed to protect safety-critical systems against the effects of a direct lightning strike or nearby discharge.

(3) An applicant electing to comply with paragraph (a)(3) of this section must submit documentation providing evidence that the safety criteria in § 450.101 will be met given any direct lightning strike or an encounter with a nearby discharge.

§ 450.165 Flight safety rules.

(a) *General.* For each launch or reentry, an operator must establish and observe flight safety rules that govern the conduct of the launch or reentry.

(b) *Flight commit criteria.* The flight safety rules must include flight commit criteria that identify each condition necessary prior to flight of a launch vehicle or the reentry of a reentry vehicle to satisfy the requirements of § 450.101, and must include:

(1) Surveillance of any region of land, sea, or air in accordance with § 450.161;

(2) Monitoring of any meteorological condition necessary to—

(i) Be consistent with any safety analysis required by this part; and

(ii) If necessary in accordance with § 450.163, mitigate the potential for a launch or reentry vehicle intercepting a lightning strike, or encountering a nearby discharge;

(3) Implementation of any launch or reentry window closure in the launch or reentry window for the purpose of collision avoidance in accordance with § 450.169;

(4) Confirmation that any safety-critical system is ready for flight;

(5) For any reentry vehicle, except a suborbital vehicle, monitoring by the operator or an on board system that the status of safety-critical systems are healthy before enabling reentry flight, to assure the vehicle can reenter safely to Earth; and

(6) Any other hazard controls derived from any safety analysis required by this part.

(c) *Flight abort rules.* (1) For a vehicle that uses a flight safety system, the flight safety rules must identify the conditions under which the flight safety system, including the functions of any flight abort crew, must abort the flight to:

(i) Ensure compliance with § 450.101; and

(ii) Prevent debris capable of causing a casualty from impacting in uncontrolled areas if the vehicle is outside the limits of a useful mission.

(2) Vehicle data required to evaluate flight abort rules must be available to the flight safety system across the range of normal and malfunctioning flight.

(3) The flight abort rules must include the following:

(i) The flight safety system must abort flight when valid, real-time data indicate the vehicle has violated any flight safety limit;

(ii) The flight safety system must abort flight when the vehicle state approaches conditions that are anticipated to compromise the capability of the flight safety system and further flight has the potential to violate a flight safety limit;

(iii) The flight safety system must incorporate data loss flight times to abort flight at the first possible violation of a flight safety limit, or earlier, if valid tracking data is insufficient for evaluating a minimum set of flight abort rules required to maintain compliance with § 450.101; and

(iv) Flight may continue past any gate established under § 450.125 only if the parameters used to establish the ability of the vehicle to complete a useful mission are within limits.

(d) *Application requirements.* An applicant must submit:

(1) For flight commit criteria, a list of all flight commit criteria; and

(2) For flight abort rules:

(i) A description of each rule, and the parameters that will be used to evaluate each rule;

(ii) A list that identifies the rules necessary for compliance with each requirement in § 450.101; and

(iii) A description of the vehicle data that will be available to evaluate flight abort rules across the range of normal and malfunctioning flight.

§ 450.167 Tracking.

(a) *Vehicle tracking.* During the flight of a launch or reentry vehicle, an operator must measure and record in real time the position and velocity of the vehicle. The system used to track the vehicle must provide data to determine the actual impact locations of all stages and components, and to obtain vehicle performance data for comparison with the preflight performance predictions.

(b) *Application requirements.* An applicant must identify and describe each method or system used to meet the tracking requirements of paragraph (a) of this section.

§ 450.169 Launch and reentry collision avoidance analysis requirements.

(a) *Criteria.* For an orbital or suborbital launch or reentry, an operator must establish window closures needed to ensure that the launch or reentry vehicle, any jettisoned components, or payloads meet the following requirements with respect to orbiting objects, not including any object being launched or reentered.

(1) For inhabitable objects, one of three criteria in paragraphs (a)(1)(i) through (iii) of this section must be met:

(i) The probability of collision between the launching or reentering objects and any inhabitable object must not exceed 1×10^{-6};

(ii) The launching or reentering objects must maintain an ellipsoidal separation distance of 200 km in-track and 50 km cross-track and radially from the inhabitable object; or

(iii) The launching or reentering objects must maintain a spherical separation distance of 200 km from the inhabitable object.

(2) For objects that are neither orbital debris nor inhabitable, one of the two criteria in paragraphs (a)(2)(i) and (ii) of this section must be met:

(i) The probability of collision between the launching or reentering objects and any object must not exceed 1×10^{-5}; or

(ii) The launching or reentering objects must maintain a spherical separation distance of 25 km from the object.

(3) For all other known orbital debris identified by the FAA or other Federal Government entity as 10 cm squared or larger, the launching or reentering objects must maintain a spherical separation distance of 2.5 km from the object.

(b) *Screening time.* A launch or reentry operator must ensure the requirements of paragraph (a) of this section are follows:

(1) Through the entire flight of a suborbital launch vehicle;

(2) For an orbital launch, during ascent from a minimum of 150 km to initial orbital insertion and for a minimum of 3 hours from liftoff;

(3) For reentry, during descent from initial reentry burn to 150 km altitude; and

(4) For disposal, during descent from initial disposal burn to 150 km altitude.

(c) *Rendezvous.* Planned rendezvous operations that occur within the screening time frame are not considered a violation of collision avoidance if the involved operators have pre-coordinated the rendezvous or close approach.

(d) *Analysis not required.* A launch collision avoidance analysis is not required if the maximum altitude attainable by a launch operator's suborbital launch vehicle and any released debris is less than 150 km. The maximum altitude attainable means an optimized trajectory, assuming maximum performance within 99.7% confidence bounds, extended through fuel exhaustion of each stage, to achieve a maximum altitude.

(e) *Analysis.* Collision avoidance analysis must be obtained for each launch or reentry from a Federal entity identified by the FAA.

(1) An operator must use the results of the collision avoidance analysis to establish flight commit criteria for collision avoidance; and

(2) Account for uncertainties associated with launch or reentry vehicle performance and timing, and ensure that each window closure incorporates all additional time periods associated with such uncertainties.

(f) *Timing and information required.* An operator must prepare a collision avoidance analysis worksheet for each launch or reentry using a standardized format that contains the input data required by appendix A to this part, as follows:

(1) An operator must file the input data with a Federal entity identified by the FAA and the FAA at least 15 days before the first attempt at the flight of a launch vehicle or the reentry of a reentry vehicle, unless the Administrator agrees to a different time frame in accordance with § 404.15 of this chapter;

(2) An operator must obtain a collision avoidance analysis performed by a Federal entity identified by the FAA 6 hours before the beginning of a launch or reentry window; and

(3) If an operator needs an updated collision avoidance analysis due to a launch or reentry delay, the operator

must file the request with the Federal entity and the FAA at least 12 hours prior to the beginning of the new launch or reentry window.

§ 450.171 Safety at end of launch.

(a) *Debris mitigation.* An operator must ensure for any proposed launch that for all vehicle stages or components that reach Earth orbit—

(1) There is no unplanned physical contact between the vehicle or any of its components and the payload after payload separation;

(2) Debris generation does not result from the conversion of energy sources into energy that fragments the vehicle or its components. Energy sources include chemical, pressure, and kinetic energy; and

(3) For all vehicle stages or components that are left in orbit, stored energy is removed by depleting residual fuel and leaving all fuel line valves open, venting any pressurized system, leaving all batteries in a permanent discharge state, and removing any remaining source of stored energy.

(b) *Application requirements.* An applicant must demonstrate compliance with the requirements in paragraph (a) of this section.

§ 450.173 Mishap plan—reporting, response, and investigation requirements.

(a) *General.* An operator must report, respond, and investigate class 1, 2, 3, and 4 mishaps, as defined in § 401.5 of this chapter, in accordance with paragraphs (b) through (h) of this section using a plan or other written means.

(b) *Responsibilities.* An operator must document—

(1) Responsibilities for personnel assigned to implement the requirements of this section;

(2) Reporting responsibilities for personnel assigned to conduct investigations and for anyone retained by the licensee to conduct or participate in investigations; and

(3) Allocation of roles and responsibilities between the launch operator and any site operator for reporting, responding to, and investigating any mishap during ground activities at the site.

(c) *Cooperation with FAA and NTSB.* An operator must report to, and cooperate with, the FAA and NTSB investigations and designate one or more points of contact for the FAA and NTSB.

(d) *Mishap reporting requirements.* An operator must—

(1) Immediately notify the FAA Washington Operations Center in case of a mishap that involves a fatality or serious injury (as defined in 49 CFR 830.2);

(2) Notify within 24 hours the FAA Washington Operations Center in the case of a mishap that does not involve a fatality or serious injury (as defined in 49 CFR 830.2); and

(3) Submit a written preliminary report to the FAA Office of Commercial Space Transportation within five days of any mishap. The preliminary report must include the following information, as applicable:

(i) Date and time of the mishap;

(ii) Description of the mishap and sequence of events leading to the mishap, to the extent known;

(iii) Intended and actual location of the launch or reentry or other landing on Earth;

(iv) Vehicle or debris impact points, including those outside a planned landing or impact area;

(v) Identification of the vehicle;

(vi) Identification of any payload;

(vii) Number and general description of any fatalities or injuries;

(viii) Description and estimated costs of any property damage;

(ix) Identification of hazardous materials, as defined in § 401.5 of this chapter, involved in the event, whether on the vehicle, any payload, or on the ground;

(x) Action taken by any person to contain the consequences of the event;

(xi) Weather conditions at the time of the event; and

(xii) Potential consequences for other similar vehicles, systems, or operations.

(e) *Emergency response requirements.* An operator must—

(1) Activate emergency response services to protect the public following a mishap as necessary including, but not limited to:

(i) Evacuating and rescuing members of the public, taking into account debris dispersion and toxic plumes; and

(ii) Extinguishing fires;

(2) Maintain existing hazard area surveillance and clearance as necessary to protect public safety;

(3) Contain and minimize the consequences of a mishap, including:

(i) Securing impact areas to ensure that no members of the public enter;

(ii) Safely disposing of hazardous materials; and

(iii) Controlling hazards at the site or impact areas;

(4) Preserve data and physical evidence; and

(5) Implement agreements with government authorities and emergency response services, as necessary, to satisfy the requirements of this section.

(f) *Mishap investigation requirements.* In the event of a mishap, an operator must—

(1) Investigate the root causes of the mishap; and

(2) Report investigation results to the FAA.

(g) *Preventative measures.* An operator must identify and implement preventive measures for avoiding recurrence of the mishap prior to the next flight, unless otherwise approved by the Administrator.

(h) *Mishap records.* An operator must maintain records associated with the mishap in accordance with § 450.219(b).

(i) *Application requirements.* An applicant must submit the plan or other written means required by this section.

§ 450.175 Test-induced damage.

(a) *Coordination of anticipated test-induced damage.* Test-induced damage is not a mishap if all of the following are true:

(1) An operator coordinates potential test-induced damage with the FAA before the planned activity, and with sufficient time for the FAA to evaluate the operator's proposal during the application process or as a license modification; and

(2) The test-induced damage did not result in any of the following:

(i) Serious injury or fatality (as defined in 49 CFR 830.2);

(ii) Damage to property not associated with the licensed activity; and

(iii) Hazardous debris leaving the pre-defined hazard area; or

(3) The test-induced damage falls within the scope of activities coordinated with the FAA in paragraph (a)(1) of this section.

(b) *Application requirements.* An applicant must submit the following information:

(1) Test objectives;

(2) Test limits;

(3) Expected outcomes;

(4) Potential risks, including the applicant's best understanding of the uncertainties in environments, test limits, or system performance;

(5) Applicable procedures;

(6) Expected time and duration of the test; and

(7) Additional information as required by the FAA to ensure protection of public health and safety, safety of property, and the national security and foreign policy interests of the United States.

§ 450.177 Unique policies, requirements, and practices.

(a) *Operator identified unique hazards.* An operator must review operations, system designs, analysis, and testing, and identify any unique hazards not otherwise addressed by this part. An operator must implement any

unique safety policy, requirement, or practice needed to protect the public from the unique hazard.

(b) *FAA unique policy, requirement, or practice.* The FAA may identify and impose a unique policy, requirement, or practice as needed to protect the public health and safety, safety of property, and the national security and foreign policy interests of the United States.

(c) *Application requirements.* (1) An operator must identify any unique safety policy, requirement, or practice necessary in accordance with paragraph (a) of this section, and demonstrate that each unique safety policy, requirement, or practice protects public health and safety and the safety of property.

(2) An operator must demonstrate that each unique safety policy, requirement, or practice imposed by the FAA in accordance with paragraph (b) of this section, protects public health and safety, safety of property, and the national security and foreign policy interests of the United States.

Ground Safety

§ 450.179 Ground safety—general.

At a U.S. launch or reentry site, an operator must protect the public from adverse effects of hazardous operations and systems associated with—

(a) Preparing a launch vehicle for flight;

(b) Returning a launch or reentry vehicle to a safe condition after landing, or after an aborted launch attempt; and

(c) Returning a site to a safe condition.

§ 450.181 Coordination with a site operator.

(a) *General.* For a launch or reentry conducted from or to a Federal launch or reentry site or a site licensed under part 420 or 433 of this chapter, an operator must coordinate with the site operator to ensure—

(1) Public access is controlled where and when necessary to protect public safety;

(2) Launch or reentry operations are coordinated with other launch and reentry operators and other affected parties to prevent unsafe interference;

(3) Any ground hazard area that affects the operations of a launch or reentry site is coordinated with the Federal or licensed launch or reentry site operator; and

(4) Prompt and effective response in the event of a mishap that could impact public safety.

(b) *Licensed site operator.* For a launch or reentry conducted from or to a site licensed under part 420 or 433 of this chapter, an operator must also coordinate with the site operator to establish roles and responsibilities for reporting, responding to, and investigating any mishap during ground activities at the site.

(c) *Application requirements.* An applicant must describe how it is coordinating with a Federal or licensed launch or reentry site operator in compliance with this section.

§ 450.183 Explosive site plan.

(a) *Exclusive use sites.* For a launch or reentry conducted from or to a site exclusive to its own use, an operator must comply with the explosive siting requirements of §§ 420.63, 420.65, 420.66, 420.67, 420.69, and 420.70 of this chapter.

(b) *Application requirements.* An applicant must submit an explosive site plan in accordance with paragraph (a) of this section.

§ 450.185 Ground hazard analysis.

An operator must perform and document a ground hazard analysis, and continue to maintain it throughout the lifecycle of the launch or reentry system. The analysis must—

(a) *Hazard identification.* Identify system and operation hazards posed by the vehicle and ground hardware, including site and ground support equipment. Hazards identified must include the following:

(1) System hazards, including:

(i) Vehicle over-pressurization;

(ii) Sudden energy release, including ordnance actuation;

(iii) Ionizing and non-ionizing radiation;

(iv) Fire or deflagration;

(v) Radioactive materials;

(vi) Toxic release;

(vii) Cryogens;

(viii) Electrical discharge; and

(ix) Structural failure; and

(2) Operation hazards, including:

(i) Propellant handling and loading;

(ii) Transporting of vehicle or vehicle components;

(iii) Vehicle testing; and

(iv) Vehicle or system activation.

(b) *Hazard assessment.* Assess each hazard's likelihood and severity.

(c) *Risk criteria.* Ensure that the risk associated with each hazard meets the following criteria:

(1) The likelihood of any hazardous condition that may cause death or serious injury to the public must be extremely remote; and

(2) The likelihood of any hazardous condition that may cause major damage to public property or critical assets must be remote.

(d) *Risk elimination and mitigation.* Identify and describe the risk elimination and mitigation measures required to satisfy paragraph (c) of this section.

(e) *Validation and verification.* Demonstrate that the risk elimination and mitigation measures achieve the risk levels of paragraph (c) of this section through validation and verification. Verification includes:

(1) Analysis;

(2) Test;

(3) Demonstration; or

(4) Inspection.

(f) *Application requirements.* An applicant must submit—

(1) A description of the methodology used to perform the ground hazard analysis;

(2) A list of all systems and operations that may cause a hazard involving the vehicle or any payload; and

(3) The ground hazard analysis products of paragraphs (a) through (e) of this section, including data that verifies the risk elimination and mitigation measures.

§ 450.187 Toxic hazards mitigation for ground operations.

(a) *Applicability.* This section applies to any launch or reentry vehicle, including all vehicle components and payloads, that use toxic propellants or other toxic chemicals.

(b) *Toxic release hazard analysis.* An operator must conduct a toxic release hazard analysis that—

(1) Accounts for any toxic release that could occur during nominal or non-nominal launch or reentry ground operations;

(2) Includes a worst-case release scenario analysis or a maximum-credible release scenario analysis for each process that involves a toxic propellant or other chemical;

(3) Determines if toxic release can occur based on an evaluation of the chemical compositions and quantities of propellants, other chemicals, vehicle materials, and projected combustion products, and the possible toxic release scenarios;

(4) Accounts for both normal combustion products and any unreacted propellants and phase change or chemical derivatives of released substances; and

(5) Accounts for any operational constraints and emergency procedures that provide protection from toxic release.

(c) *Toxic containment.* An operator using toxic containment must manage the risk of casualty from the exposure to toxic release either by—

(1) Evacuating, or being prepared to evacuate, the public from a toxic hazard area, where an average member of the public would be exposed to greater than one percent conditional individual probability of casualty in the event of a

worst-case release or maximum credible release scenario; or

(2) Employing meteorological constraints to limit a ground operation to times during which prevailing winds and other conditions ensure that an average member of the public would not be exposed to greater than one percent conditional individual probability of casualty in the event of a worst-case release or maximum credible release scenario.

(d) *Toxic risk assessment.* An operator using toxic risk assessment must manage the risk from any toxic release hazard and demonstrate compliance with the criteria in § 450.109(a)(3). A toxic risk assessment must—

(1) Account for airborne concentration and duration thresholds of toxic propellants or other chemicals. For any toxic propellant, other chemicals, or combustion product, an operator must use airborne toxic concentration and duration thresholds identified in a means of compliance accepted by the Administrator;

(2) Account for physical phenomena expected to influence any toxic concentration and duration in the area surrounding the potential release site;

(3) Determine a toxic hazard area for each process, surrounding the potential release site for each toxic propellant or other chemical based on the amount and toxicity of the propellant or other chemical, the exposure duration, and the meteorological conditions involved;

(4) Account for all members of the public that may be exposed to the toxic release; and

(5) Account for any risk mitigation measures applied in the risk assessment.

(e) *Application requirements.* An applicant must submit:

(1) The identity of the toxic propellant, chemical, or toxic combustion products in the possible toxic release;

(2) The applicant's selected airborne toxic concentration and duration thresholds;

(3) The meteorological conditions for the atmospheric transport and buoyant cloud rise of any toxic release from its source to downwind receptor locations;

(4) Characterization of the terrain, as input for modeling the atmospheric transport of a toxic release from its source to downwind receptor locations;

(5) The identity of the toxic dispersion model used, and any other input data;

(6) Representative results of an applicant's toxic dispersion modeling to predict concentrations and durations at selected downwind receptor locations, to determine the toxic hazard area for a released quantity of the toxic substance;

(7) For toxic release hazard analysis in accordance with paragraph (b) of this section:

(i) A description of the failure modes and associated relative probabilities for potential toxic release scenarios used in the risk evaluation; and

(ii) The methodology and results of an applicant's determination of the worst-case or maximum-credible quantity of any toxic release that might occur during ground operations;

(8) For toxic risk assessment in accordance with paragraph (d) of this section:

(i) A demonstration that the public will not be exposed to airborne concentrations above the toxic concentration and duration thresholds, based upon the representative results of the toxic release hazard analysis;

(ii) The population density in receptor locations that are identified by toxic dispersion modeling as toxic hazard areas;

(iii) A description of any risk mitigation measures applied in the toxic risk assessment; and

(iv) The identity of the population database used; and

(9) Additional products that allow an independent analysis, as requested by the Administrator.

§ 450.189 Ground safety prescribed hazard controls.

(a) *General.* In addition to the hazard controls derived form an operator's ground hazard analysis and toxic hazard analysis, an operator must comply with paragraphs (b) through (e) of this section.

(b) *Protection of public on the site.* An operator must document a process for protecting members of the public who enter any area under the control of a launch or reentry operator, including:

(1) Procedures for identifying and tracking the public while on the site; and

(2) Methods the operator uses to protect the public from hazards in accordance with the ground hazard analysis and toxic hazard analysis.

(c) *Countdown abort.* Following a countdown abort or recycle operation, an operator must establish, maintain, and perform procedures for controlling hazards related to the vehicle and returning the vehicle, stages, or other flight hardware and site facilities to a safe condition. When a launch vehicle does not liftoff after a command to initiate flight was sent, an operator must—

(1) Ensure that the vehicle and any payload are in a safe configuration;

(2) Prohibit entry of the public into any identified hazard areas until the site is returned to a safe condition; and

(3) Maintain and verify that any flight safety system remains operational until verification that the launch vehicle does not represent a risk of inadvertent flight.

(d) *Fire suppression.* An operator must have reasonable precautions in place to report and control any fire caused by licensed activities.

(e) *Emergency procedures.* An operator must have general emergency procedures that apply to any emergencies not covered by the mishap plan of § 450.173 that may create a hazard to the public.

(f) *Application requirements.* An applicant must submit the process for protecting members of the public who enter any area under the control of a launch or reentry operator in accordance with paragraph (b) of this section.

Subpart D—Terms and Conditions of a Vehicle Operator License

§ 450.201 Public safety responsibility.

A licensee is responsible for ensuring public safety and safety of property during the conduct of a licensed launch or reentry.

§ 450.203 Compliance with license.

A licensee must conduct a licensed launch or reentry in accordance with representations made in its license application, the requirements of subpart C of this part and this subpart, and the terms and conditions contained in the license. A licensee's failure to act in accordance with the representations made in the license application, the requirements of subpart C of this part and this subpart, and the terms and conditions contained in the license, is sufficient basis for the revocation of a license or other appropriate enforcement action.

§ 450.205 Financial responsibility requirements.

A licensee must comply with financial responsibility requirements as required by part 440 of this chapter and as specified in a license or license order.

§ 450.207 Human spaceflight requirements.

A licensee conducting a launch or reentry with a human being on board the vehicle must comply with human spaceflight requirements as required by part 460 of this chapter and as specified in a license or license order.

§ 450.209 Compliance monitoring.

(a) A licensee must allow access by, and cooperate with, Federal officers or employees or other individuals authorized by the FAA to observe any of its activities, or of its contractors or

subcontractors, associated with the conduct of a licensed launch or reentry.

(b) For each licensed launch or reentry, a licensee must provide the FAA with a console or other means for monitoring the progress of the countdown and communication on all channels of the countdown communications network. A licensee must also provide the FAA with the capability to communicate with the mission director designated by § 450.103(a)(1).

(c) If the FAA finds a licensee has not complied with any of the requirements in subpart C of this part or this subpart, the FAA may require the licensee to revise its procedures to achieve compliance.

§ 450.211 Continuing accuracy of license application; application for modification of license.

(a) A licensee is responsible for the continuing accuracy of representations contained in its application for the entire term of the license. After a license has been issued, a licensee must apply to the FAA for modification of the license if—

(1) The licensee proposes to conduct a launch or reentry in a manner not authorized by the license; or

(2) Any representation contained in the license application that is material to public health and safety or the safety of property is no longer accurate and complete or does not reflect the licensee's procedures governing the actual conduct of a launch or reentry. A change is material to public health and safety or the safety of property if it alters or affects the—

(i) Class of payload;

(ii) Type of launch or reentry vehicle;

(iii) Type or quantity of hazardous material;

(iv) Flight trajectory;

(v) Launch site or reentry site or other landing site; or

(vi) Any system, policy, procedure, requirement, criteria, or standard that is safety critical.

(b) An application to modify a license must be prepared and submitted in accordance with part 413 of this chapter. If requested during the application process, the FAA may approve an alternate method for requesting license modifications. The licensee must indicate any part of its license or license application that would be changed or affected by a proposed modification.

(c) Upon approval of a modification, the FAA issues either a written approval to the licensee or a license order amending the license if a stated term or condition of the license is changed, added, or deleted. An approval has the full force and effect of a license order and is part of the licensing record.

§ 450.213 Preflight reporting.

(a) *Preflight reporting methods.* An operator must send the information in this section as an email attachment to *ASTOperations@faa.gov,* or other method as agreed to by the Administrator in the license.

(b) *Mission information.* A licensee must submit to the FAA the following mission-specific information not less than 60 days before each mission conducted under the license, unless the Administrator agrees to a different time frame in accordance with § 404.15 of this chapter in the license, except when the information was provided in the license application:

(1) Payload information in accordance with § 450.43(i); and

(2) Flight information, including the vehicle, launch site, planned flight path, staging and impact locations, each payload delivery point, intended reentry or landing sites including any contingency abort location, and the location of any disposed launch or reentry vehicle stage or component that is deorbited.

(c) *Flight safety analysis products.* An operator must submit to the FAA updated flight safety analysis products, using previously-approved methodologies, for each mission no less than 30 days before flight, unless the Administrator agrees to a different time frame in accordance with § 404.15 of this chapter in the license.

(1) An operator is not required to submit the flight safety analysis products if—

(i) The analysis submitted in the license application satisfies all the requirements of this section; or

(ii) The operator demonstrated during the application process that the analysis does not need to be updated to account for mission-specific factors.

(2) If the operator is required to submit the flight safety analysis products, the operator—

(i) Must account for vehicle and mission specific input data;

(ii) Must account for potential variations in input data that may affect any analysis product within the final 30 days before flight;

(iii) Must submit the analysis products using the same format and organization used in its license application; and

(iv) May not change an analysis product within the final 30 days before flight unless the operator has a process, approved in the license, for making a change in that period as part of the operator's flight safety analysis process.

(d) *Flight safety system test data.* Any licensee that is required to use a flight safety system to protect public safety as required by § 450.101(c) must submit to the FAA, or provide the FAA access to, any test reports, in accordance with approved flight safety system test plans, no less than 30 days before flight, unless the Administrator agrees to a different time frame in accordance with § 404.15 of this chapter in the license. These reports must include:

(1) A summary of the system, subsystem, and component-level test results, including all test failures and corrective actions implemented;

(2) A summary of test results demonstrating sufficient margin to predicted operating environments;

(3) A comparison matrix of the actual qualification and acceptance test levels used for each component in each test compared against the predicted flight levels for each environment, including any test tolerances allowed for each test; and

(4) A clear identification of any components qualified by similarity analysis or a combination of analysis and test.

(e) *Collision avoidance analysis.* In accordance with § 450.169(f), at least 15 days before the first attempt at the flight of a launch vehicle or the reentry of a reentry vehicle, or at least 12 hours prior to the beginning of a new launch or reentry window due to a launch or reentry delay, unless the Administrator agrees to a different time frame in accordance with § 404.15 of this chapter, a licensee must submit to a Federal entity identified by the FAA and the FAA the collision avoidance information in appendix A to this part.

(f) *Launch or reentry schedule.* A licensee must file a launch or reentry schedule that identifies each review, rehearsal, and safety-critical operation. The schedule must be filed and updated in time to allow FAA personnel to participate in the reviews, rehearsals, and safety-critical operations.

§ 450.215 Post-flight reporting.

(a) An operator must submit to the FAA the information in paragraph (b) of this section no later than 90 days after a launch or reentry, unless the Administrator agrees to a different time frame in accordance with § 404.15 of this chapter.

(b) An operator must send the following information as an email attachment to *ASTOperations@faa.gov,* or other method as agreed to by the Administrator in the license:

(1) Any anomaly that occurred during countdown or flight that is material to

public health and safety and the safety of property;

(2) Any corrective action implemented or to be implemented after the flight due to an anomaly or mishap;

(3) The number of humans on board the vehicle;

(4) The actual trajectory flown by the vehicle, if requested by the FAA; and

(5) For an unguided suborbital launch vehicle, the actual impact location of all impacting stages and impacting components, if requested by the FAA.

§ 450.217 Registration of space objects.

(a) To assist the U.S. Government in implementing Article IV of the 1975 Convention on Registration of Objects Launched into Outer Space, each licensee must submit to the FAA the information required by paragraph (b) of this section for all objects placed in space by a licensed launch, including a launch vehicle and any components, except any object owned and registered by the U.S. Government.

(b) For each object that must be registered in accordance with this section, not later than 30 days following the conduct of a licensed launch, an operator must file the following information:

(1) The international designator of the space object;

(2) Date and location of launch;

(3) General function of the space object;

(4) Final orbital parameters, including:

(i) Nodal period;

(ii) Inclination;

(iii) Apogee; and

(iv) Perigee; and

(5) Ownership, and country of ownership, of the space object.

(c) A licensee must notify the FAA when it removes an object that it has previously placed in space.

§ 450.219 Records.

(a) Except as specified in paragraph (b) of this section, a licensee must maintain for 3 years all records, data, and other material necessary to verify that a launch or reentry is conducted in accordance with representations contained in the licensee's application, the requirements of subpart C of this part and this subpart, and the terms and conditions contained in the license.

(b) In the event of a class 1 or class 2 mishap, as defined in § 401.5 of this chapter, a licensee must preserve all records related to the event. Records must be retained until completion of any Federal investigation and the FAA advises the licensee that the records need not be retained. The licensee must make all records required to be maintained under the regulations available to Federal officials for inspection and copying.

Appendix A to Part 450—Collision Analysis Worksheet

(a) *Launch or reentry information.* An operator must file the following information:

(1) *Mission name and launch location.* A mnemonic given to the launch vehicle/payload combination identifying the launch mission from all others. Launch site location in latitude and longitude;

(2) *Launch or reentry window.* The launch or reentry window opening and closing times in Greenwich Mean Time (referred to as ZULU time) and the Julian dates for each scheduled launch or reentry attempts including primary and secondary launch or reentry dates;

(3) *Epoch.* The epoch time, in Greenwich Mean Time (GMT), of the expected launch vehicle liftoff time;

(4) *Segment number.* A segment is defined as a launch vehicle stage or payload after the thrusting portion of its flight has ended. This includes the jettison or deployment of any stage or payload. For each segment, an operator must determine the orbital parameters;

(5) *Orbital parameters.* An operator must identify the orbital parameters for all objects achieving orbit including the parameters for each segment after thrust end (such as SECO–1 and SECO–2);

(6) *Orbiting objects to evaluate.* An operator must identify all orbiting object descriptions including object name, length, width, depth, diameter, and mass;

(7) *Time of powered flight and sequence of events.* The elapsed time in hours, minutes, and seconds, from liftoff to passivation or disposal. The input data must include the time of powered flight for each stage or jettisoned component measured from liftoff; and

(8) *Point of contact.* The person or office within an operator's organization that collects, analyzes, and distributes collision avoidance analysis results.

(b) *Collision avoidance analysis results transmission medium.* An operator must identify the transmission medium, such as voice or email, for receiving results.

(c) *Deliverable schedule/need dates.* An operator must identify the times before flight, referred to as ''L-times,'' for which the operator requests a collision avoidance analysis. The final collision avoidance analysis must be used to establish flight commit criteria for a launch.

(d) *Trajectory files.* Individual position and velocity trajectory files, including:

(1) The position coordinates in the Earth-Fixed Greenwich (EFG) coordinates coordinate system measured in kilometers and the EFG velocity components measured in kilometers per second, of each launch vehicle stage or payload starting below 150 km through screening time frame;

(2) Radar cross section values for each individual file;

(3) Covariance, if probability of impact analysis option is desired; and

(4) Separate trajectory files identified by valid window time frames, if launch or reentry trajectory changes during launch or reentry window.

(e) *Screening.* An operator must select spherical, ellipsoidal, or collision probability screening as defined in this paragraph (e) for determining any conjunction:

(1) *Spherical screening.* Spherical screening centers a sphere on each orbiting object's center-of-mass to determine any conjunction;

(2) *Ellipsoidal screening.* Ellipsoidal screening utilizes an impact exclusion ellipsoid of revolution centered on the orbiting object's center-of-mass to determine any conjunction. An operator must provide input in the UVW coordinate system in kilometers. The operator must provide delta-U measured in the radial-track direction, delta-V measured in the in-track direction, and delta-W measured in the cross-track direction; or

(3) *Probability of Collision.* Collision probability is calculated using position and velocity information with covariance in both position and velocity.

Issued under authority provided by 49 U.S.C. 106(f) and 51 U.S.C. chapter 509 in Washington, DC, on March 22, 2019.

Wayne R. Monteith,

Associate Administrator, Office of Commercial Space Transportation.

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Part III

Department of Commerce

National Oceanic and Atmospheric Administration

50 CFR Part 224

Endangered and Threatened Wildlife and Plants; Endangered Status of the Gulf of Mexico Bryde's Whale; Rule

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 224

[Docket No. 141216999–8702–02]

RIN 0648–XD669

Endangered and Threatened Wildlife and Plants; Endangered Status of the Gulf of Mexico Bryde's Whale

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Final rule.

SUMMARY: We (NMFS) issue a final rule to list the Gulf of Mexico Bryde's whale (*Balaenoptera edeni*) (hereafter GOMx Bryde's whale) as endangered under the Endangered Species Act (ESA). We have completed a status review of the GOMx Bryde's whale in response to a petition submitted by the Natural Resource Defense Council. After reviewing the best scientific and commercial data available, including the status review and comments received on the proposed rule, we have determined that the GOMx Bryde's whale is a subspecies of *B. edeni* and warrants listing as endangered. The GOMx Bryde's whale is presently in danger of extinction (*i.e.,* meets the definition of endangered) throughout all of its range due to its small population size and restricted range, and the threats of energy exploration, development and production, oil spills and oil spill response, vessel collision, fishing gear entanglement, and anthropogenic noise. Critical habitat is not determinable at this time but will be proposed in a future rulemaking.

DATES: This final rule is effective on May 15, 2019.

ADDRESSES: Public comments are available at *www.regulations.gov* identified by docket number NOAA–NMFS–2014–0157. A list of references cited in this final rule and other supporting materials are available at: *http://sero.nmfs.noaa.gov/protected_resources/brydes_whale/index.html,* or by submitting a request to the National Marine Fisheries Service, Southeast Regional Office, Protected Resources Division, 263 13th Avenue South, St. Petersburg, Florida 33701.

FOR FURTHER INFORMATION CONTACT: Laura Engleby or Calusa Horn, NMFS, Southeast Regional Office, (727) 824–5312, or email: *laura.engleby@noaa.gov* or *calusa.horn@noaa.gov;* or Lisa Manning, NMFS, Office of Protected Resources, (301) 427–8466, or email: *lisa.manning@noaa.gov.* If you use a telecommunications device for the deaf (TDD), call the Federal Information Relay Service at 800–877–8339.

SUPPLEMENTARY INFORMATION:

Background

On September 18, 2014, we received a petition from the Natural Resources Defense Council to list the Gulf of Mexico population of Bryde's whale (*Balaenoptera edeni*) as an endangered species. The petition stated that the GOMx Bryde's whale is endangered based on at least three of the five section 4(a)(1) factors: Present or threatened destruction, modification, or curtailment of habitat or range; inadequacy of existing regulatory mechanisms; and other natural or manmade factors affecting its continued existence. The petitioner also requested that critical habitat be designated concurrent with listing under the ESA.

On April 6, 2015, we published a 90-day finding in the **Federal Register** that the petition presented substantial scientific and commercial information indicating that the petitioned action may be warranted (80 FR 18343). At that time, we announced the initiation of a formal status review and requested scientific and commercial information from the public, government agencies, scientific community, industry, and any other interested parties on the delineation of, threats to, and the status of the GOMx Bryde's whale. We received eight public comments in response to the 90-day finding, with the majority of comments in support of the petition. The public provided scientific literature, including a recently developed density model and abundance estimate, which was considered in the status review.

To help determine whether the Bryde's whale population in the Gulf of Mexico warrants listing under the ESA, we formed a Status Review Team (SRT) of seven biologists, including six biologists from NOAA Fisheries Science Centers (Southeast, Southwest, and Northeast) and Southeast Regional Office, and one from the Bureau of Safety and Environmental Enforcement—Gulf of Mexico Region, to compile and review the best available scientific and commercial information on Bryde's whales in the Gulf of Mexico and assess their extinction risk. The status review prepared by the SRT summarizes GOMx Bryde's whale taxonomy, distribution, abundance, and life history; identifies threats affecting the status of the species; and describes existing regulatory mechanisms and conservation efforts that affect the species (Rosel *et al.* 2016). The status review incorporates information received in response to our request for information (80 FR 18343; April 6, 2015), and was peer reviewed by three independent scientists with expertise in marine mammal biology, ecology, acoustics, genetics, management and policy, or related fields. Peer reviewer comments were addressed and incorporated, as appropriate, prior to dissemination of the final status review (Rosel *et al.* 2016).

On December 8, 2016, we published a proposed rule to list the GOMx Bryde's whale as endangered (81 FR 88639). We solicited comments on our proposed rule from the public for 75 days (81 FR 88639, December 8, 2016; 81 FR 92760, December 20, 2016; 82 FR 9707, February 8, 2017) and held a public hearing on January 19, 2017, at which we also accepted public comments. We are basing our listing determination on information in the status review, information received from the public, and additional materials cited in this final rule, which comprise the best available scientific and commercial information.

Listing Determinations Under the ESA

We are responsible for determining whether the GOMx Bryde's whale is threatened or endangered under the ESA (16 U.S.C. 1531 *et seq.*). Section 4(b)(1)(A) of the ESA requires us to make listing determinations based solely on the best scientific and commercial data available after conducting a review of the status of the species and after taking into account efforts being made by any state or foreign nation to protect the species. To be considered for listing under the ESA, a group of organisms must constitute a ''species,'' which is defined in section 3 of the ESA to include taxonomic species and any subspecies of fish, or wildlife, or plants, and any distinct population segment (DPS) of any species of vertebrate fish or wildlife which interbreeds when mature (section 3(16)). Under our joint regulations with the United States Fish and Wildlife Service (collectively, the Services), we must rely not only on standard taxonomic distinctions, but also on the biological expertise of the agency and the scientific community, to determine if the relevant taxonomic group is a ''species'' for purposes of the ESA (see 50 CFR 424.11(a)). Under section 4(a)(1) of the ESA, we must determine whether any species is endangered or threatened due to any of the following five section 4(a)(1) factors: (A) The present or threatened destruction, modification, or curtailment of its habitat or range; (B)

overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence (sections 4(a)(1)(A) through (E)).

Section 3 of the ESA defines an endangered species as ''any species which is in danger of extinction throughout all or a significant portion of its range'' and a threatened species as one ''which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.'' (sections 3(6) and 3(20)). Thus, we interpret an ''endangered species'' to be one that is presently in danger of extinction. A ''threatened species,'' on the other hand, is not currently at risk of extinction but is likely to become so in the foreseeable future. In other words, the primary statutory difference between a threatened and endangered species is the timing of when a species may be in danger of extinction, either presently (endangered) or in the foreseeable future (threatened).

In determining whether the Gulf of Mexico population of Bryde's whale meets the definition of an endangered or threatened species under the ESA, we first determined that, based on the best scientific data available, the GOMx Bryde's whale is a subspecies of the globally distributed Bryde's whale, and thus eligible for listing under the ESA. We then considered the information on the specific life history and ecology of the species, the nature of threats, the species' response to those threats, and population numbers based on information included in the status review and any additional materials cited in this final rule, as well as the results of the Extinction Risk Assessment (ERA) in the status review. In determining whether the GOMx Bryde's whale is endangered or threatened, the mere identification of factors that could impact a species negatively is not sufficient to compel a finding that ESA listing is appropriate. In considering those factors that might constitute threats, we looked beyond the species' mere exposure to the factor to determine whether the species responds, either to a single threat or multiple threats, in a way that causes actual impacts at the species level. Once we evaluated the threats, we assessed the efforts being made to protect the species to determine if these conservation efforts are adequate to mitigate the existing threats and alter extinction risk. We also considered the public comments received in response to the proposed rule. In making this finding, we have relied on the best available scientific and commercial information.

Public Comments and Our Responses

We requested comments on the proposed rule to list the GOMx Bryde's whale as endangered for an extended 60-day period (81 FR 88639, December 8, 2016; see also 81 FR 92760, December 20, 2016, which corrected the deadline for comment submissions published in the proposed rule). In response to a request to extend the public comment period, we re-opened the public comment period for an additional 15 days (82 FR 9707; February 8, 2017), for a total comment period of 75 days. One public hearing was also held on January 19, 2017, at NOAA Fisheries Southeast Regional Office, in St. Petersburg, Florida.

To facilitate public participation, the proposed rule was made available on our regional web page and comments were accepted via standard mail and through the Federal eRulemaking portal. In addition to the proposed rule, the correction notice, the notice of the re-opening of the comment period, and the status review were also made publically available.

Four people attended the public hearing, three of whom offered oral comments that were similar to their written comments. We received 956 public comments on the proposed rule and supporting documents. We received four sets of comments from groups that were opposed to listing the GOMx Bryde's whale as endangered under the ESA. All other comments supported listing the GOMx Bryde's whale as endangered under the ESA. One commenter attached a form letter that was signed by 11,690 members, as well as an additional 661 letters that were slightly modified versions of the same form letter. Another commenter submitted a letter including signatures from 102,702 members; 2,760 individuals included a unique supportive statement with their signature.

We reviewed all comments received for information relevant to the proposed listing rule. We did not propose to designate critical habitat for the GOMx Bryde's whale in the proposed listing rule, but we requested information on the physical or biological features and areas that may support the life-history needs of the species and that may be designated as critical habitat. The few comments received concerning critical habitat are not germane to this action and will not be addressed in this final rule. However, such comments will be considered and addressed during subsequent rulemaking on critical habitat for the GOMx Bryde's whale. All relevant public comments are addressed in the following summary below. We have categorized comments under major issues and, where appropriate, have combined similar comments from multiple groups or members of the public and addressed them together.

Comments on NMFS' Use of Best Available Science

Comment 1: Joint industry commenters stated that NMFS did not consider information they submitted in response to the request for public comment on the 90-day finding on the petition to list the GOMx Bryde's whale. They stated that the text of the status review suggests the SRT did not review their comments on the 90-day finding, and expressed concern that NMFS did not provide a response to their comment. Thus, the commenters stated that the 12-month finding is not based on the best scientific information available.

Response: As described in the 90-day finding (80 FR 18343; April 6, 2015), and as set forth in the ESA, because we made a positive finding on the petition to list the species, we were required to conduct a review of the status of the species. To that end, we requested information from the public on the GOMx Bryde's whale to inform our review of the status of the species and our determination on whether the petitioned action is warranted. All information received on the 90-day finding, including information the commenters submitted, was considered and relevant information was incorporated into the status review and the proposed rule. We accepted comments on the proposed rule and are responding to those comments at this time.

Comment 2: Several commenters expressed support for the proposed listing determination and agreed that the findings in the proposed rule and status review are consistent with the best available science. One commenter stated that NMFS complied with the ESA requirement to base our listing decision solely on the basis of the best scientific and commercial data available.

Response: We appreciate the commenters' support. Section 4(b)(1)(A) of the ESA requires that listing decisions be made using the best scientific and commercial data available, after conducting a review of the status of the species and considering certain conservation efforts. We relied on the best available scientific and

commercial information contained within the status review and any additional materials cited in this final rule in forming our determination to list the GOMx Bryde's whale as endangered.

Comments on the Extinction Risk Assessment in the Status Review

Comment 3: Joint industry group commenters stated that the SRT's extinction risk assessment was too narrow and biased in favor of finding the species was at a high risk of extinction, and therefore not based on the best scientific information available. The ''severity'' and ''certainty'' ranking systems only allowed the SRT to rank the severity of a threat as low, medium, or high, and only allowed them to find that the amount of the data supporting the conclusions (the certainty) was small, medium, or large. This system did not allow the SRT to determine that a factor does not threaten the species or that certain factors or conditions might benefit the species' abundance. With respect to the certainty ranking, the SRT members could not find that a threat had no scientific support or that a small, medium, or large amount of data disproved the threat. This system also did not allow the SRT to evaluate population stability or persistence. Further, the SRT did not assess the severity and certainty of the Inadequacy of Existing Regulatory Mechanisms. Lastly, the SRT did not analyze whether threats were occurring now or in the future.

Response: We disagree that the SRT's extinction risk assessment was biased in favor of listing. The SRT could have found that a factor did not threaten the species. To inform the extinction risk assessment, the SRT gathered information on threats to the species. Threats are those specific human or natural events or actions that have the potential to impact the species presently or in the future. Thus, if events or actions (hereafter referred to as activities) did not have the potential to impact the species now or in the future, they were not identified as threats and were not considered in the extinction risk analysis. Furthermore, even when an activity was identified as a threat, that did not mean the SRT concluded it was threatening the species, *i.e.,* contributing to the population decline, in its extinction risk assessment. The SRT could conclude an activity was a threat with only low severity and/or a low certainty, and that those threats are unlikely to contribute to population decline. In fact, the SRT found that several activities categorized under section 4(a)(1) factor B were not likely contributing to GOMx Bryde's whale's population decline and, therefore, were not a significant contributing factor in the species' extinction risk. Further, the SRT did evaluate population stability and persistence by means of their demographic risk analysis because a species' continued persistence is directly linked to demographic processes. In particular, demographic risks associated with abundance, population growth rate, spatial structure, and genetic diversity are particularly useful for evaluating extinction risk (McElhany *et al.,* 2000). The SRT evaluated each of these demographic risks.

Further, the SRT did consider actions that may benefit the species, as the SRT reviewed the best scientific and commercial information to determine whether any current or future actions may benefit the GOMx Bryde's whale. The SRT identified two conservation efforts that have the potential to benefit the GOMx Bryde's whale, the Deepwater Horizon Oil Spill Final Programmatic Damage Assessment and Restoration Plan (DWH PDARP) and the Gulf of Mexico Marine Assessment Program for Protected Species (GoMMAPPS) (see Conservation Efforts section, Rosel *et al.,* 2016). In the proposed rule, we also evaluated these conservation efforts and determined that the conservation benefits that would be expected from these efforts would not be expected to reduce the extinction risk of the GOMx Bryde's whale. Beyond what we considered in the proposed rule and status review, the commenter did not provide any new information on the conditions that they believed might benefit the species' abundance. Further, as explained in the proposed rule, we summarized existing regulatory mechanisms relevant to threats to the GOMx Bryde's whale generally, and assessed their adequacy for controlling the primary threats identified. While the SRT did not rank the severity and certainty for Inadequacy of Existing Regulatory Mechanisms in its extinction risk assessment, we do not believe that this undermines the SRT's analysis or our reliance on the information in the status review for our listing determination. The SRT assessed the impacts on the species resulting from the underlying unregulated or inadequately regulated threats.

Additionally, the SRT did evaluate whether the threats were occurring now or in the future. In its extinction risk assessment, the SRT stated that current threats are those that are occurring now and that future threats are those that are likely to result in a mounting risk to the species in the next 55 years. The SRT noted that these future threats may or may not be occurring now as well.

Lastly, convening the SRT to compile the best available information about the species' status is an optional process that helps inform, and does not supersede, the agency's listing determination. The SRT does not make listing decisions in its status review. We take into consideration the information provided by the SRT in the status review, but also independently evaluate that information in light of all the factors that govern listing. We thus evaluated the information in the status review and other information that became available to us and, after considering ongoing conservation efforts, we developed our listing determination. The commenters have provided no information on which to base a change to our listing determination.

Comment 4: Joint industry group commenters stated that small population size alone is not an indicator of extinction risk. This is particularly true when a species does not occupy a high trophic level and is not constrained to a small geographic range. In addition, the SRT never compared the population estimate of 100 to 250 mature individuals to Franklin's (1980) rule of thumb to evaluate the risk of inbreeding depression. Conversely, several other commenters believed that the need for protection under the ESA is immediate, due to the GOMx Bryde's whale small population size, restricted range, and exposure to several significant threats.

Response: The status review included a detailed discussion of how small population effects increase extinction risk. The SRT determined, and we agree, that the small size of the GOMx Bryde's whale's population makes it vulnerable to Allee effects, genetic and demographic stochasticity, and stochastic and catastrophic events (*e.g.,* oil spills). The k-selected life history strategy and thus slower population growth rate also reduces the ability of the GOMx Bryde's whale population to recover from low abundance and its ability to withstand additional sources of mortality. Thus, this small population currently faces a host of risks intrinsic to its low abundance that places the GOMx Bryde's whale at greater risk of extinction than if its population were larger. Further, while small population size alone in this instance indicates a high extinction risk, the SRT also relied on other factors in evaluating the GOMx Bryde's whale's extinction risk. In the proposed rule, we summarized the SRT's extinction risk assessment, and explained our determination that the GOMx Bryde's whale is presently in

endanger of extinction (*i.e.,* meets the definition of endangered) throughout all of its range due to multiple threats including energy exploration, development, and production, oil spills and oil spill response, vessel collision, fishing gear entanglement, and anthropogenic noise. We also noted that due to this species' small population size and restricted range, it is particularly susceptible to those threats, and explained the risks inherent to a small population size. Thus, we agree with the commenters who stated that the need for protection under the ESA is immediate.

The SRT considered Franklin's (1980) rule of thumb in evaluating the species' extinction risk. Franklin (1980) proposed the ''50/500'' rule that populations with an effective population size under 50 are near extinction and that populations with an effective size of fewer than 500 are at long-term risk of extinction. As explained in the status review, Franklin also suggested that populations with fewer than 250 mature individuals are at a level where genetic diversity will erode due to genetic drift, leaving the species less fit through time and at long-term risk of extinction (Franklin 1980). The SRT determined that a dangerously small population for GOMx Bryde's whales would be defined as a population either having equal to or fewer than 250 mature individuals or a population found in a spatial configuration vulnerable to a single catastrophic event that could drive the taxon to near extinction (*i.e.,* ≤ 50 mature individuals) in a very short time (for more discussion see Rosel *et al.* 2016). All recent studies have provided estimates that indicate the total abundance of the GOMx Bryde's whale is fewer than 100 individuals, with 50 or fewer being mature. These low numbers support our listing determination for the Bryde's whale.

Comments on Identification of the GOMx Bryde's Whale as a Subspecies

Comment 5: Joint industry commenters stated that NMFS improperly ''created'' a subspecies for the purpose of this listing and that NMFS does not have the authority under the ESA to create a subspecies for listing before independent scientific organizations have officially recognized the classification. The commenters suggest that the Services' joint regulations implementing the ESA at 50 CFR 424.11(a), which provide standards for the Services to apply when recognizing taxonomic groups eligible for listing under the ESA, are outside the Services' authority under the ESA. The commenters stated that NMFS' ability to create taxonomic units for purpose of listing under the ESA is largely limited to the creation of DPSs, and in addition to reliance on the best available scientific information, the factors used to recognize a DPS are the minimal criteria that should guide NMFS' recognition of taxonomic classifications, to the extent the agency has the authority to make such a recognition.

Response: The ESA defines ''species'' as including any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature. Section 3(16); *see also* 50 CFR 424.02 (defining species). Under the Services' joint regulations implementing the ESA, in determining whether a particular taxon or population is a species for the purposes of the Act, the Secretary shall rely on standard taxonomic distinctions and the biological expertise of the Department and the scientific community concerning the relevant taxonomic group. 50 CFR 424.11(a). The Services issued this regulation based on their authority under the ESA. The regulation does not impermissibly expand the Services' authority to list species, but rather explains how the Services will exercise their discretion to determine whether an entity qualifies as a ''species'' as defined in the ESA and is thus eligible for listing. *See, e.g., Am. Wildlands* v. *Kempthorne,* 478 F. Supp. 2d 92 (D.D.C. 2007).

Under the regulations, we can rely on ''standard taxonomic distinctions'' as well as our biological expertise and that of the scientific community in determining whether a taxon is a species eligible for listing under the ESA. Thus, neither the statute nor the Services' regulations require formal recognition by independent scientific organizations before we can classify a group of individuals as a subspecies eligible for listing. Instead, such ''standard taxonomic distinctions'' are just one basis for our classification, and should be relied upon only when they represent the best available scientific information. Likewise, we need not await scientific ''consensus'' before we can recognize a population as a species eligible for listing. *Alabama-Tombigbee Rivers Coalition* v. *Kempthorne,* 477 F.3d 1250, 1260 (11th Cir. 2007) (''Given the nature of taxonomy, it would be surprising if there were not some disagreement about the proper classification of the Alabama sturgeon, but disagreement in the field does not preclude agency decision making.''); *cf. Nw. Ecosystem Alliance* v. *U.S. Fish & Wildlife Serv.,* 475 F.3d 1136, 1147 (9th Cir. 2007); *Defenders of Wildlife* v. *Babbitt,* 958 F. Supp. 670, 679 (D.D.C. 1997).

For the same reasons, we also disagree with commenters that identifying a DPS pursuant to the DPS Policy is the only means by which we can recognize a taxonomic unit eligible for listing, or that the policy provides the required minimum criteria for determining whether a group of individuals are a ''species'' eligible for listing under the ESA. Moreover, after determining that the GOMx Bryde's whale should be considered a species under the ESA based on the best available scientific and commercial information, the SRT did consider the relevant factors under the DPS Policy (Policy Regarding the Recognition of Distinct Vertebrate Population Segments Under the ESA, 61 FR 4722, February 7, 1996). Under that policy, to identify a DPS, NMFS evaluates the discreteness of the population segment in relation to the remainder of the species to which it belongs and the significance of the population segment to the species to which it belongs (61 FR 4722, 4725, February 7, 1996). The SRT explained that although the GOMx Bryde's whales would meet the discreteness and significance criteria for a DPS, the best available scientific and commercial information indicates the GOMx Bryde's whale is a taxonomically distinct subspecies. Because we determined the GOMx Bryde's whale is a taxonomically distinct subspecies, we did not further consider whether the GOMx Bryde's whale population is a DPS.

Comment 6: Joint industry commenters stated that the proposed rule is invalid because there is no scientific consensus that the GOMx Bryde's whale is a subspecies. NMFS has not presented evidence that any scientific organization has adopted or is considering adopting the classification. The commenters noted that the Society of Marine Mammalogy Committee on Taxonomy (SMM Committee) does not include GOMx Bryde's whale on its list of species and subspecies, which confirms they do not view the GOMx Bryde's whale as a subspecies. The commenters also noted that the International Whaling Commission (IWC) and the International Union for Conservation of Nature do not recognize the GOMx Bryde's whale as a subspecies. NMFS has previously appropriately recognized and relied on a subspecies classification before it was adopted by the larger scientific community in other listing rules, but in those cases, NMFS' view of the taxonomy mirrored scientific consensus.

Therefore, the commenters concluded, the best available scientific information is that the GOMx Bryde's whale is not a subspecies. The State of Louisiana commented that they could not support the proposed rule because the subspecies determination is based in a single publication (referring to Rosel and Wilcox (2014)).

Response: We find that the best scientific and commercial information available demonstrates that the GOMx Bryde's whale is a taxonomically distinct subspecies from other Bryde's whales worldwide and that we need not await further confirmation from other scientific organizations before recognizing the population as a subspecies and listing it as an endangered species under the ESA. As we explained in the proposed rule, at the request of the SRT, the SMM Committee provided their scientific opinion that it is highly likely that the Bryde's whales in the Gulf of Mexico are at least an undescribed subspecies of what is currently recognized as *B. edeni.* In May 2016, the SMM Committee updated its list of marine mammal species and subspecies and stated that a new subspecies-level taxonomic action for Bryde's whale based on Rosel and Wilcox (2014) may be proposed and addressed in a future update to the Society of Marine Mammalogy list of marine mammal species and subspecies. The most recent update from July 2017 continues to note that the action is forthcoming (Society for Marine Mammalogy, Committee on Taxonomy, List of Marine Mammal Species and Subspecies, 2017, *https://www.marinemammalscience.org/species-information/list-marine-mammal-species-subspecies/*). In the report from their recent meeting in May 2017, the IWC Scientific Committee agreed that GOMx Bryde's whale ranked as at least a separate subspecies, and possibly a species, and stated their concern about its continued survival. Further, the IWC recommended that ''U.S. authorities use all available legal and regulatory tools to provide the maximum protection for this population'' (IWC, Report of the Scientific Committee, 2017, available at *https://iwc.int/scientific-committee-report-published*). Although we do not need to await scientific consensus to validate our view of the best available scientific information, nor does the ESA require us to delay a listing determination for such consensus (see also response to Comment 5), we find that there is substantial support within the scientific community that the GOMx Bryde's whale is at least a subspecies. Furthermore, as the commenters noted, NMFS has previously recognized subspecies classifications before their formal adoption by the larger scientific community—for example in identifying the appropriate reference taxon for completing a DPS analysis for Southern Resident killer whales (70 FR 69903, Nov. 18, 2005) and humpback whales (81 FR 62260, Sept. 8, 2016). In these cases, we listed DPSs of unrecognized subspecies of Resident killer whales in the North Pacific and several unrecognized subspecies of humpback whales.

Finally, we did not base our determination that the GOMx Bryde's whale is a subspecies solely on Rosel and Wilcox (2014); we also considered the opinion of scientific experts, including the SMM Committee, as discussed above. In addition, we disagree that the mtDNA evidence in Rosel and Wilcox (2014) is insufficient to use in establishing that the GOMx Bryde's whale is a subspecies. Rosel and Wilcox (2014) found that GOMx Bryde's whales exhibited very low levels of genetic diversity and are evolutionarily distinct from all other members of the Bryde's whale complex based on mtDNA and phylogenetic (evolutionary) analyses. As we explained in the proposed rule, Rosel and Wilcox (2014) concluded that this suggests a unique evolutionary trajectory for the Gulf of Mexico population of Bryde's whale, worthy of its own taxonomic standing, and we agree. We conclude the best scientific and commercial information available demonstrates that the Bryde's whale in the Gulf of Mexico is a subspecies.

Comment 7: Joint industry commenters stated that the SRT's request to the SMM Committee was too narrow to generate a response that could validate the SRT's conclusion that the GOMx Bryde's whale was a new subspecies. In particular, the commenters asserted that the SRT should have requested that the SMM Committee consider the taxonomic status of Bryde's whales in the Gulf of Mexico and officially recognize the GOMx Bryde's whale as a separate subspecies. In addition, the commenters stated that the SRT provided irrelevant background information and omitted additional relevant information such as the population estimate in Roberts *et al.,* (2016), or evidence of Bryde's whales in the Atlantic. Finally, given the overlap between members of the SRT and the SMM Committee, any opinion from the SMM Committee could not validate the SRT's conclusion or be used to demonstrate that the conclusion was shared among multiple, independent sources.

Response: We disagree and find that the question was appropriately posed to the SMM Committee. The SRT asked the SMM Committee whether the Bryde's whales in the Gulf of Mexico are ''likely to belong to at least an undescribed subspecies of what is currently recognized as *Balaenoptera edeni.*'' The SRT also asked the SMM Committee to rate the likelihood of subspecies status as high or low based on their expert opinion (see Appendix 1, Rosel *et al.,* (2016), containing the document sent to the SMM Committee). The SRT sought an additional expert opinion on the taxonomic status of the GOMx Bryde's whale to inform their conclusions, which were not yet finalized. Thus, the SRT posed the general question seeking the SMM Committee's view of the taxonomic status and the certainty in their conclusion. The SMM Committee could decide to update their list after reviewing the request, and have indicated that they intend to do so, based on the findings in Rosel and Wilcox (2014).

The request to the SMM Committee included relevant information and omitted no key information necessary to assess the taxonomic status of the GOMx Bryde's whale. The request contained the relevant background on the ESA listing petition that initiated the species status review, a summary of information on the species, including population estimates, and presented the genetic evidence, with a list of references, including Rosel and Wilcox (2014), required to assess the taxonomic status of those Bryde's whales in the Gulf of Mexico relative to Bryde's whales worldwide. The document sent to the SMM Committee noted the strandings in the Atlantic when discussing Rosel and Wilcox (2014). Thus, the SMM Committee was provided evidence of Bryde's whales in the Atlantic.

Species, subspecies, and DPSs can be delineated based on morphological traits, behavior, and genetics; such lines of evidence are not mutually exclusive. We do not agree that it was necessary for the SRT to provide the SMM the Roberts *et al.* (2016) abundance estimates for Bryde's whales from their U.S. East Coast or Gulf of Mexico models. First, subspecies delineation is not contingent upon abundance estimates or population size. Secondly, NMFS has records of six stranded Bryde's whales along the U.S. East Coast from 1923 to present, but considers these extralimital occurrences. Comparisons of mtDNA from available U.S. East Coast strandings (n=2)

matched that of Bryde's whales found in the Gulf of Mexico. Last, no Bryde's whales have been definitively recorded in the U.S. Atlantic during aerial and shipboard surveys conducted between 1994 and 2016, nor have any Bryde's whales been definitively detected by acoustic surveys conducted along the U.S. Atlantic Coast. While Roberts *et al.* (2016) treated unidentified sightings of baleen whales in the U.S. Atlantic as possibly Bryde's whales or sei whales, there is no definitive evidence that those sightings might be Bryde's whales, much less that they form a Atlantic population. For these reasons, we conclude that the Robert's *et al.* (2016) abundance estimates were not relevant to the question of whether Bryde's whales in the Gulf of Mexico are likely to belong to an undescribed subspecies.

Finally, as explained in the proposed rule, nine SMM Committee members, none of whom were on the SRT, provided their independent opinion. Thus, we find that the SRT's conclusions and the basis for our listing determination are shared among different experts in the field.

Comment 8: Joint industry commenters stated that NMFS improperly relied on Rosel and Wilcox (2014) to determine that the GOMx Bryde's whale is a genetically distinct subspecies, given commenters' concerns with the potential for misidentification of whales and samples within the Bryde's whale complex. According to the commenters, Rosel and Wilcox (2014) based their conclusion on a comparison of samples from 23 individuals assumed to be GOMx Bryde's whales, including 21 individual Bryde's whales sampled in the Gulf of Mexico and two individuals stranded in the North Atlantic, to samples from four whales encountered off the coast of Japan. According to the commenters, the authors analyzed three new DNA samples obtained from individuals stranded in the Gulf of Mexico and two new samples from individuals stranded in the Northwest Atlantic, but the source for the remaining samples of whales from the Gulf of Mexico population was not identified. The commenters stated that the samples may have been taken from GenBank, which they stated increases the likelihood of misidentification due to the contradictory nomenclature used to identify species samples suspected to be in the Bryde's whale complex. In addition, the commenters state that the reference whales sampled from the waters surrounding Japan were assigned their classifications based on the disputed morphological analysis proposed in Wada *et al.* (2003), and this is not an appropriate reference set. Commenters also stated that Rosel and Wilcox (2014) indicate that *B. e. brydei* is more closely related to sei whales than to *B. e. edeni.*

Response: We disagree with the commenters' characterization of the samples used in Rosel and Wilcox (2014) and statement that we improperly relied on this study in determining that the GOMx Bryde's whale is a subspecies. In making our determination, we are relying on the best available scientific information, including Rosel and Wilcox (2014) and the SMM Committee's expert opinion on the taxonomic status, and the commenters have not identified any additional or superior scientific information. As stated in Rosel and Wilcox (2014), the authors originally extracted and sequenced DNA from 23 Bryde's whales encountered and sampled in the Gulf of Mexico (including three stranded whales) and two whales that stranded in the western North Atlantic. Regarding the whales encountered and sampled in the Gulf of Mexico, they identified two sets of duplicates, indicating that two whales had been sampled twice. After excluding these duplicates, the authors analyzed 23 samples representing 23 individuals from the Gulf of Mexico population—*i.e.,* the 21 unique individuals sampled in the Gulf of Mexico and the two individuals stranded in the western North Atlantic —to determine genetic similarity among those whales and to compare DNA sequence data collected from individuals encountered worldwide. In particular, they compared the 23 samples of the Gulf of Mexico population to data from 472 individuals representing Bryde's whale complex samples worldwide, not just four from the coast of Japan (see Rosel and Wilcox, 2014, supplement at: *www.int-res.com/articles/suppl/n025p019_supp.pdf*). The worldwide scope of samples used in the analyses is illustrated in Figure 4 of Rosel and Wilcox (2014). The authors determined that mtDNA diversity was very low among the Gulf of Mexico whales and that the Gulf of Mexico whales were phylogenetically distinct from all other Bryde's whales that have been examined, and we agree with this analysis.

With respect to the origin of the samples from the whales encountered in the Gulf of Mexico (not the individuals that stranded in the Gulf of Mexico and North Atlantic), as stated in the Results section of Rosel and Wilcox (2014), the samples were obtained by scientists during field surveys and the genetic data from those samples was later submitted to GenBank. The worldwide samples were obtained from GenBank, however, we do not agree with the commenters that the samples were misidentified in Rosel and Wilcox (2014). Samples from species within the Bryde's whale complex in GenBank may be labeled based on evolving taxonomy. For example, in 2003, Wada *et al.* (2003) identified another species in the Bryde's complex, *B. omurai.* Therefore, prior to 2003, samples could not be submitted to GenBank under that name. Furthermore, GenBank currently only recognizes the two species within the complex, *B. edeni* and *B. omurai,* and does not have an option to submit samples under the subspecies of *B. edeni, B. edeni edeni* or *B. edeni brydei,* even though the scientific community recognizes that these are two taxonomically distinct subspecies of *B. edeni.*

Rosel and Wilcox (2014) noted the evolving taxonomy. To assign names to the different groupings identified in their phylogenetic analysis (*i.e.,* to assign a taxonomic classification to each clade or grouping of the phylogenetic tree), Rosel and Wilcox (2014) used the DNA sequences from Sasaki *et al.* (2006); they did not rely on how the samples were labeled in GenBank or otherwise identified. Sasaki *et al.* (2006) sequenced 4 samples from whales encountered off Japan, meaning they identified a genetic sequence applicable to each. These whales were morphologically identified as *B. edeni edeni, B. edeni brydei,* and *B. omurai* following Wada *et al.* (2003). The phylogenetic analysis in Rosel and Wilcox (2014) consistently showed that GOMx Bryde's whales grouped together as a separate clade (or group) on the phylogenetic tree, regardless of how those clades would be taxonomically identified or named. This illustrates their phylogenetic distinctiveness. Rosel and Wilcox (2014) also performed a character attributes analysis on the samples, and this analysis illustrated that there are multiple diagnostic differences in mtDNA control region sequences among members of the Bryde's whale complex (*i.e., B. omurai, B. edeni edeni,* and *B. edeni brydei*), making correct identification of sequences straightforward. Therefore, we find that the information from the GenBank samples as applied by Rosel and Wilcox (2014) is reliable.

We also disagree that the analysis in Rosel and Wilcox (2014) is flawed because of its reliance on Wada *et al.* (2003) and Sasaki *et al.,* (2006). As noted in Rosel and Wilcox (2014), taxonomic uncertainties exist as to whether the *B. e. edeni* and *B. e. brydei,*

the two recognized subspecies of *B.edeni,* should be recognized as full species, not subspecies, as suggested in Wada *et al.* (2003). The ongoing discussion within the taxonomic community as to the number of species and subspecies within the Bryde's whale complex is not directly relevant to our listing determination for the GOMx Bryde's whale. Until that issue is resolved, the accepted taxonomy is that there are two species in the complex, *B. edeni* and *B. omurai,* and two subspecies of *B. edeni, B.e. edeni* and *B.e. brydei.* The best available scientific information establishes that the GOMx Bryde's whale is a genetically isolated unit and is distinct from other whales within the Bryde's whale complex (*B.e. edeni, B.e. brydei,* and *B. omurai*). Thus, based on the current recognized taxonomic standing, we determined it is appropriate to list the GOMx Bryde's whales as a subspecies of *B. edeni.* Rosel and Wilcox (2014) did not indicate that *B. edeni brydei* is more closely related to sei whales than to *B. e. edeni.* This study found significant differences between GOMx Bryde's whale haplotypes and those from sei whales and the two recognized Bryde's whale subspecies (*B. edeni edeni* and *B. edeni brydei*).

Comment 9: Industry commenters stated that the disputed taxonomic status of the Bryde's whale complex casts doubt on the decision to recognize the GOMx Bryde's whale as a genetically distinct subspecies. In support, the commenters stated that Wada *et al.* (2003) concluded that *B. e. brydei, B. e. edeni, and B. omurai* are three species based on morphology; that Sazaki (2006) used genetic data to confirm those results, but suggested that *B. e. edeni* and *B. e. brydei* may be in the same genetic complex as the sei whale (*Balaenoptera borealis*); and that Kato and Perrin (2009) evaluated Wada *et al.* (2003) and Sazaki (2006) and questioned the suggestion that *B. e. edeni* and *B. e. brydei* should be considered full species. The commenters stated that Kato and Perrin (2009) noted that these studies are based on discrete regions and that global studies have to be undertaken. The commenters stated that the Rosel and Wilcox (2014) study does not settle this taxonomic question.

Response: As explained in the status review, the scientific community has been considering whether the two recognized subspecies of Bryde's whales, Eden's whales (*B. e. edeni*) and Bryde's whales (*B. e. brydei*), should be categorized as two different species. In a morphological comparison of Omura's whale (*B. omurai*) with other members of the Bryde's whale complex, Wada *et al.* (2003) suggested that *B. omurai* and the recognized subspecies (*i.e., B. e. edeni* and *B. e. brydei*) should be considered three distinct species: *B. omurai, B. edeni,* and *B. brydei.* The morphological work of Wada *et al.* (2003) is not disputed. That work resulted in the naming of a new species, Omura's whale, *B. omurai,* that has been well accepted by the cetacean research community, including the IWC. Omura's whale, *B. omurai,* is on the official list of marine mammal species curated by the SMM. Sasaki's *et al.* (2006) genetic analysis supported the morphological findings in Wada *et al.* (2003), which indicated that Omura's whale (*B. omurai*) is a distinct species, and together these analyses suggest that the species has long been on a separate evolutionary pathway. The SMM Committee currently recognizes Omura's whale species, *B. omurai,* and a single Bryde's whale species, *B. edeni,* and is awaiting further analysis of the two Bryde's whale subspecies (*i.e., B. e. edeni* and *B. e. brydei*) to determine whether these two recognized subspecies are actually two separate species. We reviewed Kato and Perrin (2009), and we conclude that it continues the discussions related to how many species, not subspecies, are recognized within the complex. However, we do not believe Kato and Perrin (2009) call into question our determination that the GOMx Bryde's whale is a subspecies of Bryde's whales (*B. edeni*). As explained in response to Comment 8, Rosel and Wilcox (2014) relied on the accepted taxonomy—that there are two species in the complex, *B. edeni* and *B. omurai,* and two subspecies of *B. edeni, B.e. edeni* and *B.e. brydei*—and found that the GOMx Bryde's whale is genetically isolated and is distinct from other whales within the Bryde's whale complex such that it should be classified as a subspecies of *B. edeni.*

Comment 10: Joint industry commenters stated that the best scientific information, including Rosel and Wilcox (2014), shows that GOMx Bryde's whales are genetically indistinct from whales in the North Atlantic Ocean and possibly elsewhere and thus may be part of a larger, discontinuous population, with population connectivity aligning with ocean currents. Commenters stated that Rosel and Wilcox (2014) should not have relied on samples from GenBank because those samples may be mislabeled or misidentified, and that without the samples, the study is an evaluation of five samples, three from individuals stranded in the Gulf of Mexico and two from individuals stranded in the North Atlantic. Because two of the five samples (40 percent) used in Rosel and Wilcox (2014) were from whales in the North Atlantic that were found to be genetically identical to those in the Gulf of Mexico, the study suggests there is a discontinuous population across the Gulf of Mexico and North Atlantic. The commenters do not agree that the two North Atlantic samples were stray Bryde's whales from the Gulf of Mexico that had stranded in the Atlantic. In addition, studies published since 2014 identifying the presence of subspecies *B.e. brydei* in the southern Caribbean and southern Brazil, and observations of *B. omurai* in northern Brazil, West Africa, and off Madagascar, establish that the GOMx Bryde's whales could be connected to a larger, unidentified discontinuous population.

Response: As described herein, the total number of unique genetic samples of GOMx Bryde's whales used in Rosel and Wilcox (2014) was 23; of which 20 were from skin biopsies obtained during NMFS cetacean surveys in the Gulf of Mexico and three were tissue samples from stranded animals (one from the Gulf of Mexico and two from the Southeast U.S. Atlantic coast). Less than nine percent of the samples from the Gulf of Mexico population were from the Atlantic, not 40 percent. The sequences from these samples were submitted to GenBank as part of the publication process for Rosel and Wilcox (2014). We disagree that these samples need to be disregarded.

We do not believe that the GOMx Bryde's whales are part of a larger group of interconnected populations. If that were the case, genetic diversity would be expected to be much higher than what was found because there would be genetic exchange between populations. The two stranded animals from the Southeast U.S. Atlantic coast had identical DNA sequences to all the Bryde's whales from the Gulf of Mexico over the 375 base pair (bp) fragment that was the primary alignment used for all analyses, and this sequence differed from the worldwide samples. Therefore, NMFS concurs with Rosel and Wilcox (2014) that the two stranded whales from North Carolina and South Carolina are GOMx Bryde's whales. Rosel and Wilcox (2014) also examined genetic samples from other regions in the Atlantic, including the Azores and Canary Islands, and more recently the southern Caribbean and Brazil, and found that these samples were clearly genetically distinct from the whales from the Gulf of Mexico, including the

two North Atlantic strandings. Thus, we disagree that the GOMx Bryde's whale could be part of a much larger population existing elsewhere. Nor do we find that the genetic similarity of the whales stranded on the east coast of the United States suggests there is a discontinuous population of Bryde's whales across the Gulf of Mexico and North Atlantic. Species resident in the Gulf of Mexico may strand in the Atlantic. Equally plausible is that the individuals were sick and/or injured, but alive, and swam out of the Gulf of Mexico, with the currents, and stranded along the east coast of the United States. The most recent recorded stranding of a GOMx Bryde's whale along the east coast was a whale that stranded in North Carolina in 2003. It was entangled in black polypropylene line and was extremely emaciated. The cause of stranding for other whales is unavailable. Extralimital strandings on the Atlantic Coast of whales from the Gulf of Mexico and other areas are possible (Mead 1977). Similarly, strandings in the Gulf of Mexico have been documented for several individuals of multiple baleen whale species not routinely seen there (Jefferson and Schiro 1997). In addition, north Atlantic right whales are typically found in the western North Atlantic; however, a few extralimital sightings have occurred in the Gulf of Mexico (Ward *et al.* 2011). For all of these reasons, NMFS believes the best available information suggests the two GOMx Bryde's whales that stranded along the Southeast U.S. Atlantic represent extralimital occurrences.

Commenters presented no additional information on GOMx Bryde's whale distribution that casts doubt on our findings. The studies related to *B.e. brydei* (Luksenburg *et al.,* 2015; Pastene *et al.,* 2015) were considered in the status review. The SRT included these studies, among others, in the description of the distribution and habitat use of *B.e. brydei* in the Atlantic Ocean in the status review (Rosel *et al.,* 2016). The studies the commenter cites on *B. omurai* (Cypriano-Souza, 2016; Jung 2016; Cerchio *et al.,* 2015) are not part of the status review or proposed rule because *B. omurai* is recognized as an entirely different species and thus this information does not add to our understanding of the distribution of the GOMx Bryde's whale or whales within *B. edeni.*

Comment 11: Joint industry commenters questioned NMFS' reliance on Rosel and Wilcox (2014) because of its reliance on differences in mtDNA between species from the Gulf of Mexico and elsewhere. The commenters stated that genetic data alone are rarely sufficient to make a taxonomic distinction and are insufficient in this instance. The commenters stated that subspecies are traditionally defined by morphological traits, color variation, or behavior differences and that GOMx Bryde's whales are morphologically identical to Bryde's whales worldwide. Even if the mtDNA patterns showed a statistically significant differentiation between oceans, mtDNA, which is maternally inherited, cannot alone describe population structure without additional information on male and female movement patterns. The commenters stated that NMFS recognized this fact in its ''Not Warranted'' 12-month Finding on a Petition to List Sperm Whales in the Gulf of Mexico as a Distinct Population Segment (79 FR 68032). The commenters further stated that the difference in mtDNA may indicate discreteness in populations where movement patterns of male and female are the same, but these patterns are not known for Bryde's whales. According to the commenter, the limited Bryde's whale tagging data and migratory patterns are disputed, but commenters state that recent satellite tracking data of two *B. edeni* whales in the North Pacific travelling longer distances than previously known demonstrates an increased potential for population connectivity over long distances. Thus, the commenters stated that a comprehensive analysis of genetic differentiation requires more extensive evaluation of paternally inherited genes.

Response: We find that reliance on mtDNA evaluation to support the listing is appropriate. Rosel and Wilcox (2014) looked at differences among mtDNA samples in a control region as well as differences in other markers (nuclear microsatellite loci) to evaluate the genetic diversity of Bryde's whales in the Gulf of Mexico and concluded that the low level of differentiation, as well as the differences between of those Gulf of Mexico whales and other members of the Bryde's whale complex, suggest they are an isolated unit. We agree with those findings. In this case, it is appropriate to look at the differences in mtDNA to determine the genetic distinctiveness of the Gulf of Mexico Bryde's whales relative to each other, and to the worldwide complex. As we explained in our determination concerning sperm whales in the Gulf of Mexico (61 FR 4722; February 7, 1996), mtDNA may indicate that populations are discrete (as that term is used in our DPS Policy) where male and female movement patterns are the same. However, because mtDNA information is maternally inherited, in species where female and male movement patterns differ, as in the case of sperm whales for example, analysis of nuclear DNA (nDNA), which is inherited from both parents, may indicate that the populations are not discrete (see *e.g.,* loggerhead sea turtle, 68 FR 53947, September 15, 2003, at 53950–51 and Conant *et al.,* 2009, at 18, 22, 25–28; southern resident killer whale, Krahn *et al.,* 2002, at 23–30). Thus, for species in which male and female movement patterns differ, mtDNA is not likely to be sufficient to evaluate the discreteness of the population or to determine their degree of genetic differentiation. In our determination concerning sperm whales, we found that male and female movement patterns differ. Due to the wide ranging nature of male sperm whales, males from one population may breed with females from other populations. Thus, in the case of sperm whales, we concluded that maternally-inherited mtDNA was not sufficient to indicate populations are discrete. Unlike the sperm whales in the Gulf of Mexico, visual surveys (Waring *et al.,* 2013) and acoustic (Rice *et al.,* 2014) data indicate that GOMx Bryde's whales are year-round residents within the Gulf of Mexico. Available evidence indicates that, excluding a few extralimital occurrences into the Atlantic from the Gulf of Mexico, the population is primarily distributed within the northeastern Gulf of Mexico and distinct from other Bryde's whale populations (Rosel *et al.,* 2016). Extralimital occurrences have been observed in other marine mammal species. For example, the North Atlantic right whales are typically found in the western North Atlantic; however, a few extralimital occurrences have been recorded in the Gulf of Mexico (Ward *et al.* 2011). We agree that GOMx Bryde's whales may strand dead in the U.S. Atlantic; however, we do not have, nor have the commenters presented, evidence to support the claim that GOMx Bryde's whales are interbreeding with other populations of Bryde's whales. In addition, Bryde's whales have not been sighted in the U.S. Atlantic during aerial and shipboard surveys conducted from 1994 to present, nor have we documented any definitive acoustic detection of Bryde's whales along the U.S. Atlantic Coast. Furthermore, the extremely high number of fixed genetic differences between the GOMx Bryde's whales and all other Bryde's whales sampled worldwide is indicative of an isolated unit. If male Bryde's whales were entering the Gulf of Mexico from

nearby populations, they would be expected to bring the mtDNA haplotypes of that population. The dataset in Rosel and Wilcox (2014) consisted of a near equal mix of males and females with both sexes collected across seasons indicating there is not a bias against males in the dataset that might arise if males were only present in the Gulf of Mexico during the breeding season. If the Bryde's whales in the Gulf of Mexico were part of a larger more broadly distributed population, the haplotype diversity would be expected to be larger and the nuclear microsatellite diversity would also be expected to be higher. Thus, mtDNA, without additional information from nDNA, can be used to evaluate their genetic distinctiveness. Further, the high level of genetic divergence of GOMx Bryde's whales when compared with the two recognized Bryde's whale subspecies and sei whales suggests that GOMx Bryde's whales have been isolated for a relatively long period of time and are not interbreeding with other Bryde's whale populations. Species, subspecies, and DPSs can be delineated based on morphological traits, behavior, and genetics; such lines of evidence are not mutually exclusive. Thus, it is appropriate to rely on genetic data, including mtDNA information, to support our subspecies determination.

The commenters also state that knowledge of the Bryde's whale movement patterns is evolving, and reference Murase *et al.* (2015). Murase *et al.* (2015) found that North Pacific Bryde's whales may transition from one known feeding area to another known feeding area during the summer months. The distance traveled between the known feeding areas is consistent with the known movements of the North Pacific Bryde's whale population. Murase *et al.* (2015) indicates that the timing of those movements may differ from what was previously believed, but it does not report longer distance movements than what was already known. This study is not relevant to our understanding of movement patterns for the GOMx Bryde's whale. We find that the evidence supports the determination that the GOMx Bryde's whales are a resident population that inhabits the northeastern Gulf of Mexico year round.

Comment 12: Joint industry commenters stated that NMFS should not rely on Rosel and Wilcox (2014) because the study did not establish that the GOMx Bryde's whale is a subspecies because it does not have the requisite marked distinction. Further, commenters state that Rosel and Wilcox (2014) did not identify what the Gulf of Mexico population is distinct from.

Response: Commenters appear to be referring to the Services' joint DPS Policy (61 FR 4722, February 7, 1996) when stating that there is a need for a population to exhibit some amount of ''marked distinction.'' we determined that the GOMx Bryde's whale is a subspecies of the globally distributed Bryde's whale, based on the genetic analyses in Rosel and Wilcox (2014), the conclusions in the status review, and the expert opinion of the SMM Committee. As we explained in response to Comment 5, because we determined the GOMx Bryde's whale is a subspecies of *B. edeni,* we did not further analyze whether it would qualify as a DPS. Thus, the commenters are incorrect in their assertion that NMFS did not meet the requisite criteria of our DPS policy as we did not conduct a DPS analysis.

Comments on Bryde's Whale Distribution and Abundance

Comment 13: Joint industry commenters stated that an increase in ocean temperatures could substantially expand the Bryde's whale's global range. The commenters discussed that globally, Bryde's whales are most frequently found in warm temperate waters and intermittent sightings of the Bryde's whales outside areas where these whales are frequently observed (between 40°N and 40°S) either indicates a broader distribution than what has been described or that distribution is connected to larger-scale climate variability and trends.

Response: Based on the best available commercial and scientific information as summarized in Rosel *et al.* (2016), we have determined that Bryde's whales in the Gulf of Mexico are distinct from the globally distributed Bryde's whale, and that those whales in the Gulf of Mexico are limited to the Biological Important Area (BIA) (see the Distribution section for a full description of the BIA). The best available scientific information suggests that the GOMx Bryde's whale has been isolated for some time from other Bryde's whale populations so their ability to disperse to or colonize new habitats in response to increasing ocean temperatures may be limited, irrespective of whether other members of the global Bryde's whale complex may be able to do so. We do not have any evidence to suggest that the GOMx Bryde's whale's distribution or range is shifting or expanding in response to climate change or that this population's distribution is connected to larger scale climate variability. In addition, we cannot predict whether or how the GOMx Bryde's whale's range may shift in response to climate change or whether new threats may arise resulting from climate change. Therefore, we have no basis to change our determination that the GOMx Bryde's whale is not presently endangered based on possible future range shifts in the GOMx Bryde's whale's distribution or possible future threats from climate change.

Comment 14: Joint industry commenters stated that NMFS did not have sufficient evidence on which to assess the species' abundance and identify population trends. The commenters stated that NMFS relied on limited survey data, including surveys for other species (bluefin tuna and ichthyoplankton surveys), but information from these surveys is of limited applicability as those surveys may have been conducted at times or in locations or depths when GOMx Bryde's whales are not frequently observed, or may have proceeded without the proper equipment (*e.g.,* acoustic tracking equipment) needed to locate the GOMx Bryde's whale.

Response: We disagree and find that we do have sufficient information to assess the GOMx Bryde's whale's abundance. As the SRT explained in the status review, 25 years of dedicated cetacean survey effort (shipboard and aerial surveys during 1991–2015) has been developed covering both the continental shelf and oceanic waters of the Gulf of Mexico and U.S. Atlantic east coast (see Figure 3 in Rosel *et al.* 2016). These surveys, which are ongoing, cover a broad area, are conducted in all seasons and at various depths, and employ appropriate techniques for observing cetaceans, including Bryde's whales. The SRT considered the information from the dedicated cetacean survey effort, which covered appropriate habitats and employed appropriate techniques for observing Bryde's whales. GOMx Bryde's whale sightings have occurred in all seasons in the northeastern Gulf of Mexico. We did not rely on surveys for other species, including bluefin tuna and ichthyoplankton surveys, to estimate GOMx Bryde's whale abundance. In estimating abundance, the status review discusses the limited number of cetacean surveys in Mexican waters and the southern Gulf of Mexico. The SRT's conclusion that the population size is most likely fewer than 250 mature individuals, and more likely fewer than 100 whales, with 50 or fewer at maturity, accounts for an unknown level of negative bias due to the low survey effort in Mexican and southern Gulf of Mexico waters. We agree with this conclusion. As stated in the status review, population trend data are not available for the GOMx Bryde's

whale, and the SRT did not estimate population trends.

Comment 15: Joint industry commenters stated that it is unlikely that the De Soto Canyon area is the geographic extent of the GOMx Bryde's whale range. Instead, the commenters stated that the De Soto Canyon is likely a prime observational area among a number of other areas in the Gulf of Mexico and western Atlantic where Bryde's whales are found due to the area's high but unpredictable concentrations of food. In addition, commenters stated that (a) Bryde's whale strandings have occurred throughout the Gulf of Mexico and on the Atlantic Coast as far north as the Chesapeake Bay; (b) Bryde's whale are sighted on and off the continental shelf during surveys of North Carolina and Florida, and throughout the Gulf of Mexico in waters off the coast of Texas and Louisiana; and (c) Bryde's whales have been sighted in Brazil, the Caribbean Sea, and elsewhere. Thus, the commenters stated that concerted survey efforts elsewhere in the world have found Bryde's whales in areas where they were thought not to exist. The commenters stated that the SRT did not address the fact that survey effort outside the De Soto Canyon area, in the U.S. Atlantic and Mexican waters, and outside the De Soto Canyon is limited, and that as a result NMFS did not have sufficient information to conclude the species is absent from those areas.

Response: We considered and cited the stranding and sighting information that the commenters reference in evaluating the species' distribution and range, which is described in more detail in the status review. The commenters have not provided any new or additional stranding or sighting information that we have not already considered. There has been a concerted survey effort for marine mammals along the U.S. Atlantic coast and in the Gulf of Mexico. We find that the best scientific and commercial information demonstrates that over the past 25 years, the GOMx Bryde's whale has been consistently located along a very narrow depth corridor in the northeastern Gulf of Mexico. There are no confirmed sightings outside of this area, despite a large amount of dedicated marine mammal survey effort that has covered both continental shelf and oceanic waters of the Atlantic Ocean off the southeastern United States and the northern Gulf of Mexico.

In the proposed rule, we acknowledged, as did the SRT, that a small number of unidentified baleen whales were sighted in the north-central and western Gulf of Mexico, and explained that we do not know if those unidentified whales are Bryde's whales. For example, in 1992, a fin whale was identified during an aerial survey off Texas, and in 1992 and 1994, a single baleen whale was sighted along the shelf break in the western Gulf of Mexico during GulfCet surveys. These latter sightings were recorded as Bryde's/sei whale (Rosel *et al.,* 2016). In addition, we are aware of five other ''baleen whale'' reported sightings west of the BIA to the longitude of western Louisiana, from reports from protected species observers and a single citizen sighting (Rosel *et al.,* 2016).The SRT noted, and we agree, that these sighting, are difficult to interpret because the information collected during those sightings is insufficient to identify the species. Consequently, we are unable to draw conclusions about the GOMx Bryde's whale's distribution from this information. Thus, we find that the best available scientific evidence indicates that the BIA, located in the De Soto Canyon area of the northeastern Gulf of Mexico, encompasses the current range of GOMx Bryde's whale. We agree with the commenter's observation that the waters in the De Soto Canyon are nutrient rich, productive waters, which contain sources of prey for the GOMx Bryde's whale. However, for the reasons just discussed we do not agree that the De Soto Canyon is merely a prime observational area.

Comment 16: Joint industry commenters stated that the SRT selectively accounted for estimates of the Bryde's whale population size and that the estimates upon which the SRT relied do not appear to be the best available scientific information. The commenters stated that the SRT relied on population estimates in NMFS' Stock Assessment Reports, which underestimate abundance because they assume all whales in the vicinity of the survey were counted. The commenters stated that the reliability of the estimates in the Stock Assessment Reports are in question given the variation in the population estimates in the reports over time, and the variability cannot be attributed to mortality and reproduction in the population. The commenters stated that the SRT did not take into account the estimate published in Roberts *et al.* (2016), although the commenters do not necessarily endorse the conclusions of those authors. The commenters also stated that it is unclear how the SRT extrapolated and estimated the Gulf-wide population (*i.e.,* likely fewer than 250 mature individuals, and more likely fewer than 100 individuals, with 50 or fewer being mature).

Response: We find that the population abundance estimates are based on the best available scientific information. The SRT considered abundance estimates contained in published reports of surveys conducted from the early 1990s to 2012; these estimates ranged from 15–44 Bryde's whales in the northern Gulf of Mexico (see Table 2, Rosel *et al.* 2016). These abundance estimates were based on data collected through NMFS' cetacean research surveys and by other researchers (*e.g.,* Roberts *et al.* 2015a). The proposed rule and status review also discussed other papers by Roberts *et al.* (Roberts *et al.* (2016, 2015a, 2015b) in evaluating the population abundance. As discussed in the status review, the SRT recognized that the most recent abundance estimate in 2015 NMFS Stock Assessment Report (33 individuals, CV = 1.07) was likely negatively biased because it assumed all whales on the track line were sighted. The SRT explained that Roberts *et al.* (2015a and 2016) averaged years of survey data and accounted for not meeting the assumption of sighting all whales on the track lines and concluded that the population was higher—*i.e.,* 44 whales (CV = 0.27). Thus, the SRT considered potential bias in abundance estimates that may have contributed to variability in the estimates. The SRT did not attribute variability among the available abundance estimates solely to individuals entering or leaving the population.

Regarding the SRT's extrapolation of a Gulf of Mexico-wide population estimate, the status review, in its discussion of Population Status, stated ''the population size is most likely fewer than 100 whales.'' The SRT made a conclusion regarding the likely size of the GOMx Bryde's whale's population size after considering all previous abundance estimates, which have ranged from 15 (CV = 1.98) to 44 (CV = 0.27) whales. The SRT noted potential bias in some of the estimates, and did not rely on a single abundance estimate or survey. In developing their conclusions regarding abundance, the SRT considered several elements including previous abundance estimates, available survey information, historical range and current range, and the limited survey effort outside the U.S. Gulf of Mexico. The SRT reached consensus, based on the best available information and their professional expert opinion, that there are fewer than 250 mature individuals, and more than likely the population contains fewer than 100 individuals, with 50 or fewer being mature. We agreed with the SRT's assessment.

Comment 17: Joint industry commenters stated that other available data, including recent passive acoustic surveys conducted in the De Soto Canyon and carcass recovery rates indicate that GOMx Bryde's whale populations may be higher than NMFS and the SRT have estimated. The commenters stated that acoustic surveys target GOMx Bryde's whales and capture subsurface GOMx Bryde's whales that visual surveys may miss and the relatively high GOMx Bryde's whale acoustic activity seems to be in disagreement with the low number of visual observations made during surveys. Call rates of the GOMx Bryde's cited in Rice *et al.* (2014) and Sirovic *et al.* (2014) are higher when compared to call rates of Bryde's whales in the ''Gulf of California'' cited in Kerosky *et al.* (2012). The commenters stated that Bryde's whales are considered abundant in the Gulf of California, and higher call rates in the Gulf of Mexico could suggest a higher abundance of the Bryde's whales than in the Gulf of California, or than NMFS assumed in the proposed listing. The commenters also stated that the carcass recovery rates the SRT used to estimate the threat of vessel collisions are likely too high and, when considering the observed stranding rates, cast doubt on the abundance estimates.

Response: We disagree that the available acoustic data can be compared to, or conflicts with, the visual observations, and that it should be used to estimate abundance. Estimating call rates (*i.e.,* calls per animal, per time period—typically per hour) for baleen whales requires either extended simultaneous visual and acoustic localization studies or multi-day acoustic tag deployments. Using call rates to estimate abundance of a particular population (for example, GOMx Bryde's whales) requires information on the density of the species in the measured area as well as on the location where the measurements were taken and on the sex, age group, behavior state, time of day, and season in which the measurements were taken (Heinemann *et al.,* 2016; Marques *et al.,* 2013). The acoustic activity of Bryde's whales in the Gulf of Mexico referred to by the commenter (*i.e.,* Rice *et al.,*2014 and Sirovic *et al.,* 2014) does not provide this level of information, thus it would not be appropriate to use those data to estimate abundance of the GOMx Bryde's whales. For example, Rice *et al.* (2014) identified Bryde's whale vocalizations to understand spatial and temporal distribution patterns of GOMx Bryde's whales, but this study did not quantify the number of whales in an area or determine whether the calls represented a single or multiple individuals. Sirovic *et al.* (2014) described one call type that was recorded in the presence of GOMx Bryde's whales and produced a time series of the presence of that call in long-term autonomous recordings from the De Soto Canyon in the northern Gulf of Mexico. This study recorded a few tens to just over a hundred calls a week, which is a reasonable number for a small population size and relatively small area of monitoring. However, Sirovic *et al.* (2014) concluded that more targeted recordings are necessary to obtain a call production rate, and additional measurements of call source levels are needed to estimate population size. Kerosky *et al.* (2012) studied the seasonal and inter-annual changes in Bryde's whale presence within the Southern California Bight (not in the Gulf of California as stated by the commenters), and thus reported the number of hours per day where calls were recorded in that area alongside information on sea surface temperature. Bryde's whales produce different call types in different ocean basins, and likely have differing inter-call intervals in different locations. Without information that would allow us to compare call rate information across ocean basins, such as information on relative densities and inter-calling intervals of the different populations, or information on the different environmental conditions in each region that could affect the ability to record the calls, we cannot readily compare the call information in Kerosky *et al.* (2012) to information we have on calls of GOMx Bryde's whales to estimate the relative population size across these regions.

Lastly, it also is not appropriate to use stranding records in the SRT's carcass recovery rate equation to develop an abundance estimate. First, the actual carcass recovery rate for GOMx Bryde's whales is unknown and likely low. The GOMx Bryde's whale is an offshore species and thus carcasses are unlikely to be detected due to factors such as at-sea scavenging, sinking, wind, currents, and stranding in locations where detection is unlikely. Given these uncertainties, any abundance estimate derived from carcass recovery rates would suffer from both unknown biases and un-quantified uncertainty, and therefore cannot be validly compared to estimates derived from line-transect surveys. Secondly, if the carcass recovery rate is fixed, then only mortality rates and abundance will affect the estimated number of observed strandings. The historical mortality rate and abundance of GOMx Bryde's whale is unknown. Thus, historical stranding information cannot inform our understanding of past population size. Without a mortality rate, we cannot determine what percentage of the entire population a single stranding represents. For these reasons, we believe that the dedicated cetacean survey (shipboard and aerial) methodology that NMFS used to inform the abundance estimates in the Stock Assessment Reports is the best available method to estimate abundance. Researchers regularly use this methodology to assess cetacean populations throughout the United States and other parts of the world.

Comment 18: An industry comment stated that the genetic analysis contained in Rosel and Wilcox (2014) suggests that Bryde's whale abundance in the Gulf of Mexico is underestimated. If the population was as small as we stated, it is unlikely that researchers obtained genetic samples from 23 Bryde's whales and only received two duplicate samples. The low number of duplicate samples suggests that the genetic analysis is flawed because it failed to detect duplicate samples. There is 0.57 percent chance that researchers were able to obtain 23 random samples from a population of 33 whales and have only two duplicates. The commenters calculated a population size between 79 and 125 whales based on 23 random samples containing two duplicates.

Response: We disagree. Rosel and Wilcox (2014) examined a total of 23 samples (3 stranded and 20 biopsy sampled whales) from the Gulf of Mexico. After collecting the genetic data, the researchers determined that two whales had each been biopsied twice over the years. Therefore, the number of individual whales sampled in the Gulf of Mexico and used in Rosel and Wilcox (2014) mtDNA analysis was 21. In addition, the researchers extracted sequence DNA information from 2 animals from the Gulf of Mexico population that stranded in the North Atlantic. To calculate the commenters' suggested probability that there is only a 0.57 percent chance that 23 random samples from a population of 33 whales would result in only two duplicates, one would have to assume that the same 33 whales were present in the ship-surveyed locations during the approximately 19 years over which samples were collected. However, that assumption raises several concerns. First, the researchers screened which whales to sample. At least during a

given survey year, efforts were made to avoid repeated sampling of individual animals. Therefore, biopsies collected during the same survey are not independent sampling events, but were structured in a way to avoid duplicates. Secondly, annual surveys were not random sampling events. Many encounters with Bryde's whales were during opportunistic encounters rather than samples collected across a randomized trackline. This lack of independence and random sampling prevents the interpretation of capture probabilities and the likelihood of repeated events. Finally, it is unreasonable to evaluate the probability of obtaining duplicates from a set of 33 animals, because the population size is not exactly 33 animals. The sample size may be higher or lower, and individuals may enter and leave the population overtime. Therefore, inferences about re-sampling probabilities based upon a fixed estimate of exactly 33 animals are unreliable.

Comments on Existing Regulatory Mechanisms

Comment 19: Joint industry commenters stated that NMFS misapplied the analysis mandated under ESA section 4(a)(1), factor D. According to commenters, NMFS concluded that the existing regulatory mechanisms are inadequate because they have not prevented the current status of the GOMx Bryde's whale, or because the species is threatened under other factors such as low abundance and limited distribution. Commenters state that it is inappropriate to rely on estimates of abundance and distribution as a measure of regulatory efficacy without analyzing population trends over time, and that our analysis offered ''only the cursory conclusion that any evidence of risk is evidence of the inadequacy of existing regulations.''

Response: We did not conclude that evidence of low abundance or limited distribution, or any evidence of risk, is evidence of inadequacy of existing regulations. In agreeing with the SRT's conclusion that existing regulatory measures have not prevented the current status of the GOMx Bryde's whale, we were stating that existing regulatory measures are not adequate to address the threats that are contributing to the species extinction risk. We summarized the regulatory mechanisms relevant to the threats that contribute to the species' extinction risk, and evaluated whether any existing regulatory mechanisms will adequately control those threats.

As we stated in the proposed rule, the relevance of existing regulatory mechanisms to extinction risk for an individual species depends on the vulnerability of that species to each of the threats identified under the other section 4(a)(1) factors, and the extent to which regulatory mechanisms are expected to control the threats that are contributing to the species' extinction risk. If GOMx Bryde's whales were not vulnerable to a specific threat (*i.e.,* risk was low), we did not consider that threat under our analysis of the adequacy of regulatory mechanisms. The best available scientific and commercial information establishes that energy exploration, development, and production, oil spills and oil spill response, vessel collision, fishing gear entanglement, anthropogenic noise, and small population concerns, such as Allee effects, demographic and genetic stochasticity, k-selected life history parameters, and stochastic and catastrophic effects are currently threatening the species and contributing to its extinction risk (ESA section 4(a)(1) factors A and E). Consequently, we assessed the adequacy of regulatory mechanisms relative to those threats and determined that there are no existing regulatory mechanisms in place to control those ongoing threats. Population trend information is not necessary to reach this conclusion.

Comment 20: Joint industry comments stated that existing regulatory mechanisms and industry-driven initiatives sufficiently protect the Bryde's whales because those measures have eliminated the largest historical threat to the species, commercial whaling, and because those measures address each of the threats NMFS identified. In particular, the commenters stated (a) the IWC commercial whaling moratorium prohibits commercial harvest, (b) the Marine Mammal Protection Act (MMPA) prohibits takings, unless NMFS otherwise permits the taking, (c) the Outer Continental Shelf Lands Act (OCSLA) allows the Department of Interior (DOI) to administer mineral exploration, development, and production in a manner that protects natural resources, (d) the Oil Pollution Act (OPA) addresses oil spills (prevention and remediation), (e) the Ports and Waterways Safety Act (PWSA) manages ports and vessel traffic to protect the marine environment, (f) the Clean Water Act (CWA) regulates discharges into U.S. waters and creates pollution control programs, (g) the International Convention for the Regulation of Whaling (ICRW) provides for proper conservation of whale stocks, and (h) the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) provides a framework for ensuring international trade in wild animals does not threaten the survival of species in the wild and establishes lists of species and accords them varying degrees of protection based on the level of their endangerment. The commenters stated that NMFS did not consider these laws collectively, and when the laws are taken as a whole, they address and minimize each threat. The commenters also stated that the threat of energy exploration, development, and production is not likely to arise in the future due to the numerous protections in place to protect marine mammals. The moratorium on new lease sales within the EPA will protect Bryde's whales from oil spills and spill response, and recently developed measures ''including additional subsea blowout preventer testing, required downhole mechanical barriers, well containment systems, and additional regulatory oversight'' make an oil spill event ''less likely than in the past.'' The commenters also stated that the court's opinion in *Oceana* v. *BOEM,* 37 F. Supp. 3d 147 (D.D.C. 2014) confirmed that oil and gas seismic surveys do not injure marine mammals. In addition, industry initiatives prevent oil spills and improve spill responses. A separate commenter stated that existing regulations have been inadequate to protect the GOMx Bryde's whale because, despite general protection under the MMPA, the GOMx Bryde's whale population is estimated at 33 animals, and the MMPA provides no regulatory mechanisms specific to the GOMx Bryde's whale.

Response: We agree that the IWC commercial whaling moratorium provides significant protection for the GOMx Bryde's whale now. However, we do not agree that Bryde's whales in the Gulf of Mexico are sufficiently protected by the MMPA, OCSLA, OPA, PWSA, CWA, ICRW, or CITES, or other regulatory mechanisms addressed in the proposed rule, including the International Maritime Organization (IMO). We assessed the adequacy of regulatory mechanisms, including the MMPA, OCSLA, OPA, ICRW, CITES, and the IMO-related regulatory mechanisms, relative to the identified threats and determined that there are no existing specific regulatory mechanisms in place to control those threats. For example, there are no IMO-related regulatory mechanisms in the Gulf of Mexico to address the threat of vessel collisions to the GOMx Bryde's whale, which has been identified as one of the primary threats facing the species.

The commenters also stated the PWSA or the CWA are adequate at protecting GOMx Bryde's whales from the ongoing threats. Under the PWSA, the U.S. Coast Guard has implemented two mandatory ship reporting systems in 1999 in an effort to reduce the threat of ship strikes to right whales in U.S. waters of the Atlantic Ocean. The Coast Guard noted that the ship reporting systems have the potential to reduce ship strike of the endangered north Atlantic right whale by providing direct communication of current north Atlantic right whale sighting information to ship operators in high risk areas. However, no similar ship reporting system exists that would protect the GOMx Bryde's whale.

Under the CWA, the Environmental Protection Agency has implemented regulations pertaining to pollutant discharges (see generally 40 CFR ch. I, subchapter D, water programs). The commenters state that the CWA regulates discharges of pollutants into U.S. waters and creates pollution control programs, but did not state which threat this would address. If the commenters believe that the CWA adequately controls the threat of oil spills and spill response, we disagree. As we explained in the proposed rule, OPA is the principal statute governing oil spills in the nation's waterways. Even with OPA, there have been multiple large and numerous small scale oil spills in the Gulf of Mexico (Rosel *et al.,* 2016; BSEE accessed November 3, 2017, *https://www.bsee.gov/newsroom*). We found no CWA regulation that would protect the GOMx Bryde's whale from the ongoing threats from oil spills and oil spill response. In addition, we did not identify vessel discharges or discharges from oil and gas activities as a threat that is contributing to the species' extinction risk. We have determined that, taken individually and collectively, the existing regulatory measures discussed or referenced above are inadequate to address the threats to the GOMx Bryde's whale from energy exploration, development, and production, oil spills and oil spill response, fishing gear entanglement, vessel collision, and anthropogenic noise.

We agree with the comment that the moratorium on new lease sales exploration, development, and production in the EPA has provided some level of protection for Bryde's whales by reducing nearby industrialization. However, the moratorium does not adequately address the threat the species' faces from energy exploration, production, and development. The moratorium does not preclude energy exploration (seismic survey activity) and thus seismic survey activity can occur within the EPA and affect the species in their habitat. Moreover, we have found that energy exploration, production, and development in the Gulf of Mexico has broad impacts on the subspecies, through curtailment of its range. The moratorium on activities in the EPA does not affect the energy exploration, production, and development activities in the north-central and southern Gulf of Mexico that likely contributed to the subspecies' range contraction and continues to restrict the whales to the BIA. Further, these activities elsewhere in the Gulf of Mexico have affected the whales. For example, as a result of the 2010 DWH oil spill, an estimated 17 percent of the population of GOMx Bryde's whales was killed, 22 percent of reproductive females experienced reproductive failure, and 18 percent of the population likely suffered adverse health effects due to lung and adrenal disease and poor body condition (DWH MMIQT 2015, DWH Trustees 2016). The activities that led to the DWH oil spill were not subject to the moratorium, and the moratorium thus did not offer the species' protection. In addition, the moratorium expires in 2022. If oil and gas development and production were to move closer to the BIA or expand within the BIA or if seismic survey activity levels near or within the BIA were to increase, extremely detrimental effects on the remaining individuals within the population could result. Exposure to seismic survey noise at energy levels that can cause acute auditory injury may lead to hearing loss and affect individual fitness, and any such effects in a very small population can have significant population level consequences. In addition, chronic noise from seismic survey activity in the species' habitat can mask vocalizations, increase stress, reduce foraging and reproductive success, mask environmental cues, and, at high enough levels, lead to habitat displacement. With regard to the latter, this species appears to have no other available habitat in which to seek refuge. We reached our final listing determination after fully considering existing regulations individually and together and found that existing regulatory mechanisms are not adequately protecting the GOMx Bryde's whale from these threats.

Nothing in the Court's determination that BOEM and NMFS had complied with the ESA with respect to specific lease sales stands for the general proposition that oil and gas seismic surveys do not injure marine mammals.

Finally, we agree with the second commenter that, as we explained in the proposed listing rule, outside of the general protections provided to marine mammals under the MMPA, there are no regulatory mechanisms specific to the GOMx Bryde's whale under the MMPA.

Comment 21: Joint industry commenters stated that numerous vessel strike avoidance measures are in place to protect Bryde's whales from vessel traffic in the Gulf of Mexico. The commenters referenced a notice to lessees and operators that engage in certain oil and gas activities issued by the Bureau of Ocean Energy Management (BOEM) (BOEM NTL No. 2016–G01). They also state that the MMPA and the PWSA provide NMFS ample, adequate authority to implement regulations mitigating the threat from vessel strikes.

Response: We do not find that GOMx Bryde's whales are adequately protected from vessel strike. The notice that commenters' cite includes several recommendations to vessel operators engaging in oil and gas activities to avoid vessel strikes with marine mammals and sea turtles; these recommendations were issued through ESA section 7 consultations with BOEM. The recommendations are specific to particular areas and do not apply to other commercial vessel operators. Furthermore, these vessel strike avoidance measures are recommendations and are not a regulatory mechanism that would be considered under the section 4(a)(1) factor D. The ESA does not allow us to consider speculative future regulatory activities, such as those that may occur under MMPA and PWSA authority, when making a listing determination. There are currently no vessel speed restrictions, routing schemes, or reporting requirements or regulations established that protect GOMx Bryde's whales from vessel strike. The commenters provided no information on regulatory mechanisms that exist that we have not considered and that address the threat of ship strike. For these reasons, we conclude that our determination that there are no existing regulations to control the threat of ship strike for the GOMx Bryde's whale is appropriate and valid.

Comment 22: Joint industry commenters stated that the Magnuson-Steven Fishery Conservation and Management Act (MSA) protects Bryde's whales from prey reduction as a result of overfishing because the MSA has successfully rebuilt overfished

populations and limits future fish stock depletions. Furthermore, Fishery Management Councils are required to consider ecosystem interactions in their management plans.

Response: As we stated in the proposed rule, the relevance of existing regulatory mechanisms to extinction risk for an individual species depends on the vulnerability of that species to each of the threats identified under the other factors of ESA section 4(a)(1), and the extent to which regulatory mechanisms are expected to control the threats that are contributing to the species' extinction risk. The SRT scored the threat from trophic impacts due to commercial harvest of prey as a ''low'' severity threat with ''low'' certainty. NMFS agrees that Bryde's whales are not vulnerable to this particular threat; consequently, we did not evaluate further the adequacy of existing regulatory mechanisms for addressing the threat from trophic impacts.

Comment 23: Joint industry commenters stated that Bryde's whales are protected from entanglement under the Atlantic Tunas Convention Act because NMFS promulgated regulations under this authority that resulted in an area within De Soto Canyon that is closed to pelagic longline fishing. Commenters state that such fishing is not contributing to Bryde's whale entanglement in that area.

Response: Pelagic longlines are a known entanglement threat to baleen whales. Approximately two thirds of the BIA has been closed to commercial pelagic longline fishing year-round since 2000, when the Highly Migratory Species (HMS) Atlantic Tunas, Swordfish, and Sharks Fishery Management Plan (FMP) was amended to close the De Soto Canyon Marine Protected Area (65 FR 47214, August 1, 2000). The longline closure implemented under the Atlantic Tunas Convention Act and HMS Atlantic Tunas, Swordfish, and Sharks FMP provides protection to GOMx Bryde's whales from entanglement in longline gear in the De Soto Canyon Marine Protected Area; however, the species is not protected outside of the closed area, and pelagic longline fishing still occurs in the remaining one third of the BIA (Figure 20B in Rosel *et al.,* 2016). In addition, other fisheries pose an entanglement risk. There are no restrictions on, or areas within the BIA closed to, bottom longline fishing. The bottom longline component of the Gulf of Mexico reef fish fishery and the Gulf of Mexico shark bottom longline fishery overlap with portions of the Bryde's whale BIA, and bottom longline gear is an entanglement risk to bottom-foraging whales, given that the majority of mainline gear is anchored on the seafloor. The closures discussed above do not fully address the threat of entanglement from these fisheries. In addition, given the species' small population, the species is particularly vulnerable to any threat. Consequently, we have determined that existing regulatory mechanisms are not sufficient to protect Bryde's whales from the threat of entanglement from pelagic and bottom longline gears.

Comments on the Threat of Energy Exploration, Development, and Production

Comment 24: Some commenters disagreed with NMFS' conclusion that energy exploration, development, and production presents a current threat to GOMx Bryde's whales. Joint industry commenters stated that oil and gas activities currently do not impact areas that we have identified as being important for Bryde's whale conservation. As support, the commenters stated that ''whales, including Bryde's whales, have been living in close proximity to the offshore oil and gas industry for decades without any evidence that populations in the Gulf of Mexico are declining or that individuals are being harmed,'' citing a 2008 U.S. Department of the Interior Minerals Management Service Sperm Whale Seismic Study in the Gulf of Mexico.

Response: Energy exploration, development, and production presents a current threat to GOMx Bryde's whales. In the proposed rule, we explained that in the area that we have identified as important for GOMx Bryde's whale conservation, there is currently no oil and gas production activity, with most of the area falling under a moratorium on lease sales until 2022. However, energy exploration, development, and production, including noise associated with those activities, and oil spills and spill response contribute to the habitat modification and curtailment of the species' range. Based on sightings data and extensive survey effort over the past 25 years, there appears to be limited current use by Bryde's whales in the north-central and southern Gulf of Mexico where habitat has been significantly modified with the presence of thousands of oil and gas platforms (Rosel *et al.,* 2016). Considering that historical whaling records indicate the GOMx Bryde's whales were distributed more broadly than they are currently, including areas in the north-central and southern Gulf of Mexico, it is likely that this industrialization and associated noise contributed to the range contraction such that their primary habitat is restricted to the BIA within the northeastern Gulf of Mexico. Continued activities and associated noise within the north-central and southern Gulf of Mexico may keep the species limited to this area.

Commenters state that the GOMx Bryde's whale has been living in close proximity to offshore oil and gas for decades without any evidence of harm, based on a 2008 U.S. Department of the Interior Minerals Management Service Sperm Whale Seismic Study in the Gulf of Mexico. In that study, the authors were unable to detect biological effects of seismic activities on sperm whales. However, the authors explain that their study cannot be viewed as conclusive evidence that sperm whales or other ecosystem components have not and are not being affected by oil and gas exploration and production. Further, this reference is entirely related to sperm whales with no mention of Bryde's whales, and did not extrapolate conclusions about the sperm whales to other species. Sperm whales differ from Bryde's whales both acoustically and behaviorally such that their potential for exposure to effects from oil and gas exploration and production are different. Sperm whales are mid-frequency odontocetes, whereas Bryde's whales are low-frequency mysticetes. Oil and gas activities generate low frequency sounds that have a greater potential to overlap with and mask the lower frequency Bryde's whales calls and interfere with the species' communication. Sperm whales also dive to much greater depths than Bryde's whales are known to dive. We do not believe it is appropriate to apply the findings in this study to the GOMx Bryde's whale.

Comment 25: Joint industry commenters disagreed with our conclusion that oil and gas development in the Gulf of Mexico contributed to restricting the GOMx Bryde's whales' range to the De Soto Canyon. The commenters stated that the best available science indicates that Bryde's whales are not limited to the De Soto Canyon, and neither the SRT nor NMFS have provided scientific support for the conclusion that the species' range is limited. According to the commenter, NMFS improperly drew this conclusion despite a peer reviewer comment that expressed concern over the conclusion, and misstated the SRT's conclusion regarding the restriction of the species' range.

Response: Whaling records indicate that Bryde's whales were once distributed more widely in the Gulf of Mexico and that their range included

the north-central and southern Gulf of Mexico (Reeves *et al.,* 2011). The best available scientific information (*e.g.,* Mullin and Hoggard 2000, Maze-Foley and Mullin 2006, Mullin 2007, DWH MMIQT 2015) indicate that Bryde's whales in the Gulf of Mexico are now restricted primarily to a small region along the continental shelf break in the De Soto Canyon area of the northeastern Gulf of Mexico. Surveys throughout U.S. waters of the Gulf of Mexico over the past 25 years have not identified any Bryde's whales outside this region. Available information indicate that interbreeding between GOMx Bryde's whales and other Bryde's whales is not taking place because of substantial genetic differences between GOMx Bryde's whales and other Bryde's whales (see our responses to Comments 10 and 11). Consequently, NMFS believes the stranding reports U.S. Atlantic represent rare, extralimital occurrences of GOMx Bryde's whales and not additional habitat or expanded distribution. Roberts *et al.* (2015a) modeled Bryde's whale density in the Gulf of Mexico is based on sightings, physiographic, physical, oceanographic, and biological covariates obtained from remote sensing and ocean models to develop a spatially-explicit description of Bryde's whale density. The model shows Bryde's whales' mean year-round density extending from the northeastern Gulf of Mexico, where the highest density in the BIA occurs, into a relatively narrow band of depth in the northern Gulf of Mexico, in areas where the species has been historically observed (see Figure 7, Rosel *et al.,* 2016).

As stated in the status review and restated in the proposed rule, the GOMx Bryde's whales habitat in the north-central and southern Gulf of Mexico has been physically modified over time and is highly industrialized as a result of energy exploration, development, and production. We conclude that this modification and industrialization, including associated noise, likely contributed to the GOMx Bryde's whale's range contraction. Peer Reviewer 2 stated that the range contraction may have been due to whaling, in that whaling may have reduced the population and the remaining population may have relocated to the most favorable habitat. The SRT concluded that the GOMx Bryde's whales small population size is not related to historical whaling because the population should have recovered from whaling moralities sustained more than a century ago and we agree. In addition, we do not agree that the proposed rule misstates the conclusions reached by the SRT. The proposed rule is consistent with and directly refers to conclusions in status review regarding the GOMx Bryde's whale's restricted range.

Comment 26: Joint industry commenters stated that the current level of oil and gas activity in the EPA of the Gulf of Mexico is low, and that this threat is not causing GOMx Bryde's whales to approach the brink of extinction. Currently only 0.3 percent of the EPA is leased through 37 active leases, and only 105 wells have been drilled, none of which have been put into production. The commenters state that production is low, likely for market reasons. For example, only natural gas has been discovered in significant quantities, and natural gas prices in 2016 were at a 20-year low, which likely reduces the incentive to produce from the wells. The commenters state that BOEM has conducted only two lease sales (in 2014 and 2016) in a small portion of the EPA that remained open for leasing, and neither received a bid.

Response: We agree that the current level of oil and gas activity in the EPA is low. The majority of active lease sales are located in the Western and Central Planning Areas. However, we find it is likely that the high levels of industrialization associated with oil and gas exploration (seismic surveys), development, and production in parts of the species' historical range have contributed to the curtailment of their range to the area recognized as the GOMx Bryde's whale BIA. The low level of energy production and development activities in the EPA is a potential reason why the GOMx Bryde's whale only occurs in the northeastern Gulf of Mexico (*i.e.,* the species is likely avoiding the more industrialized part of their historical range). The range contraction is a current threat to the species. In addition, we note that seismic survey activity was high in the EPA in 2009 and that the activity may return to those high levels following expiration of the moratorium on lease sales in 2022. At those high levels, individual GOMx Bryde's whales would not be able to hear their closest neighbors. Furthermore, the moratorium on lease sales in the EPA does not preclude seismic survey activity in the EPA now, and such activity could increase before the actual expiration of the moratorium.

Comment 27: Joint industry commenters asserted that NMFS conflated present threats from energy exploration, development, and production with future threats and overestimated the likelihood of oil and gas production activity in the EPA in the future. The commenters stated that EPA is subject to a moratorium on new lease sales that expires in 2022, but even if the lease moratorium in the EPA is lifted in 2022, the future level of energy exploration, development, and production and pipeline activity is largely unknown, and depends on the potential for hydrocarbon discoveries and future market conditions. The commenters stated that most geographically relevant forward-looking analysis is likely BOEM's Environmental Impact Statement (EIS) for multiple lease sales in the Central and Eastern Planning Areas between 2017 and 2022. For areas in the Central and Eastern Planning Areas offered for leasing between 2017 and 2022, BOEM expects that, at most, 67 wells will be drilled, 2 production structures will be installed and removed, and up to 145 miles of pipeline will be laid between 2012 and 2051. The commenters stated all of these activities will take place in waters more than 800 meters (m) deep, which is beyond the depths where Bryde's whales are commonly found. The commenters concluded that even if the moratorium is lifted and the post-2022 lease sales attract bidders and the leases are developed, peak well construction and operation and pipeline development would not occur for many years.

Response: We did not conflate present threats from energy exploration, development, and production with future threats, and we did not overestimate the likelihood of oil and gas production in the future. As we stated in the preceding response, we find that the current level of energy exploration, production, and development elsewhere in the Gulf of Mexico is affecting the species. In addition, the species' exposure to future energy exploration, development, and production are likely to increase in the EPA with expiration of the moratorium on new lease sales in 2022. Some development is already expected in the EPA. As the commenters noted, based on the final supplemental EIS on oil and gas lease sales in 2016 and 2017 in the Central and Eastern Planning areas, which includes one lease sale in the EPA (Lease Sale 226), BOEM expects up to 67 wells will be drilled, up to 2 production structures will be installed, up to 145 miles of pipeline will be laid, 1,000 service-vessel round trips will be made, and 1,000 helicopter operations are expected between 2012 and 2051 in the EPA (BOEM 2015–033). Even if this development occurs in waters deeper than 800 m, the species would likely

still be exposed to noise and vessel strike from service vessels. Due to extended underwater sound propagation of low-frequency noise from well drilling, structure construction, seismic surveys, supporting vessel traffic, etc., we still expect acoustic impacts to the species that typically occur between 100 and 400 m water depths even if activities were to occur in depths greater than 800 m. In addition, in its final programmatic EIS on geological and geophysical activities in the Gulf of Mexico, BOEM estimates that there will be hundreds of instances of GOMx Bryde's whales being injured and thousands of instances of behavior disruptions as a result of noise associated with oil and gas activities, including noise from seismic surveys, from 2016 to 2025 (BOEM 2017–051). These analyses support our concern that future development is a threat to the species that contributes to its extinction risk.

Comments on the Threat of Oil Spills and Spill Response

Comment 28: Joint industry commenters and another commenter disagreed with NMFS' reliance on the DWH Natural Resource Damage Assessment injury estimate to conclude that Bryde's whales experienced significant impacts from the DWH oil spill, and that oil spills and spill responses are a high threat to the species. The commenters stated that models used in the DWH assessment were flawed and have not been validated. In particular, the Marine Mammal Working Group, which evaluated and quantified injury to cetaceans from the DWH oil spill, did not observe any Bryde's whales in oiled waters in 2010, did not identify any Bryde's whale mortalities in 2010 or 2011, and did not observe any Bryde's whale behavioral changes or collect samples showing that whales ingested oil or dispersants. Furthermore, the commenters stated, all exposure risks and impairments were improperly inferred from dolphin studies in other areas. Other commenters agreed with NMFS' reliance on the DWH assessment to conclude that GOMx Bryde's whales were the most impacted shelf and oceanic species as a result of the DWH oil spill.

Response: We disagree and find there is sufficient evidence that the GOMx Bryde's whales were adversely affected by the DWH event and that GOMx Bryde's whales are threatened by oil spills and spill responses. The DWH Trustees undertook a Natural Resource Damage Assessment (NRDA) to evaluate the nature and extent of adverse effects of the DWH incident on natural resources. As a result of the extensive, multi-year NRDA, the Trustees concluded that the DWH oil spill caused a wide array of injuries to species and natural resources in the northern Gulf of Mexico, including to the GOMx Bryde's whale. In particular, the damage assessment estimated that the oil footprint included 48 percent of the BIA, 17 percent of the population was killed, 22 percent of reproductive females experienced reproductive failure, and 18 percent of the population likely suffered adverse health effects due to the spill. Through the Marine Mammal Working Group's analysis in the NRDA, the group estimated the impacts of the DWH oil spill on the GOMx Bryde's whales and other cetaceans based on data from stranded animals, photo-identification surveys, and live dolphin health assessments that together characterized the adverse health effects of the spill on observed populations of dolphins in Barataria Bay and Mississippi Sound. Those assessments extrapolate the magnitude of the injury to other populations present within the oil footprint. The DWH NRDA Marine Mammal Technical Working Group report (DWH MMIQT 2015) explains that due to their narrow distribution and small population size, Bryde's whales are rarely observed during any single line transect study. In addition, the probability is extremely low that animals dying far offshore would eventually strand on beaches, which likely explains why no Bryde's whale strandings were recovered in 2010 or 2011. In order for researchers to collect samples of stomach contents showing that whales ingested oil or dispersants, dead whales would have had to strand ashore, and because the GOMx Bryde's whale is an oceanic animal it is highly unlikely that a carcasses would strand. The commenters provided no new information suggesting that GOMx Bryde's whales were not impacted by the DWH oil spill. For all the foregoing reasons, we believe it is reasonable to rely on NRDA to assess the impacts to the GOMx Bryde's whale resulting from exposure to the DWH oil spill, and to evaluate the threat to the species from oil spills and spill response.

Comment 29: Several commenters stated that GOMx Bryde's whales are more vulnerable to oil spills due to the whale's highly limited range and strong site fidelity, increasing their risk and vulnerability to a single catastrophic event.

Response: We agree. The Bryde's whales' small population size, restricted range, and year-round residency in the northeastern Gulf of Mexico increase the species' vulnerability to stochastic and catastrophic events such as oil spills and spill responses. Moreover, the GOMx Bryde's whale BIA is in close geographic proximity to oil extraction development areas, increasing their risk of exposure to an oil spill event.

Comment 30: Joint industry commenters stated that if a spill was to occur and dispersants were needed for spill response, the dispersants will have minimal impacts to Bryde's whales. The commenters stated that impacts are highly dependent on a number of factors, such as frequency and duration of exposure, the type and mixtures of the chemical/compounds, the route of exposure, and the species' known avoidance of oily water. The commenters also stated that no Bryde's whales were observed within the oil during the DWH oil spill and there were no samples showing that Bryde's whales ingested oil or oil dispersants. Another commenter, however, stated that baleen whales, such as Bryde's whales, are more susceptible to impacts from oil spills and response activities because, as filter feeders, oil may adhere to their baleen plates and result in ingestion of the oil or dispersants used.

Response: We recognize that impacts from dispersants are highly dependent on a number of factors, such as frequency and duration of exposure, the type and mixtures of the chemical/compounds, and the route of exposure. There is no evidence that GOMx Bryde's whales will avoid oiled waters. While previous studies have suggested that marine mammals could detect and avoid oiled waters, recent photographic evidence and field observations gathered following the DWH oil spill documented at least 11 marine mammal species swimming through oil and sheen, with oil adhering to their skin (Dias *et al.,* 2017). This evidence demonstrates that marine mammals do not necessarily avoid oiled waters. In addition, the best available scientific information indicates that dispersants can cause acute or chronic impacts to marine mammals with lethal or sub-lethal effects (*e.g.,* Wise *et al.,* 2014). Oil and other chemicals used as dispersants may impair marine mammals' health and reproduction, and increase their susceptibility to other diseases (DWH Trustees 2016). After active spilling has been stopped, marine mammals may experience continued effects through persistent exposure to oil in the environment, reduction or contamination of prey, direct ingestion of contaminated prey, or displacement from preferred habitat (Schwacke *et al.,* 2014, Bureau of Ocean Energy

Management and Gulf of Mexico OCS Region 2015, DWH Trustees 2016). Thus, based on available information for marine mammals, we cannot conclude that GOMx Bryde's whale would be minimally harmed by oil spills or response activities. Moreover, as described herein, the DWH PDARP determined the Bryde's whale to be the most impacted oceanic marine mammal following the 2010 DWH oil spill. We find that the best available science supports our determination that oil spills and spill responses are a threat to the species. We agree with the other commenter that Bryde's whales are susceptible to impacts from oil spills and response activities and that ingestion of oil or dispersants are likely harmful to GOMx Bryde's whales.

Comment 31: Joint industry commenters stated that the species will not be threatened by oil spills or spill response activities in the future. BOEM's EIS for multiple lease sales in the Central and Eastern Planning Areas between 2017 and 2022 (BOEM 2015–033) recognizes that recently developed measures, ''including additional subsea blowout preventer testing, required downhole mechanical barriers, well containment systems, and additional regulatory oversight'' make an oil spill event ''less likely than in the past,'' and BOEM does not expect spills greater than 150,000 barrels in the Central and Eastern Planning Areas during the 2017 to 2022 period. Commenters also noted industry-driven initiatives to prevent oil spills and improve spill responses, including the formulation of four ''Joint Industry Task Forces ('JITFs') to identify best practices in offshore drilling operations and oil spill response with the aim of enhancing safety and environmental protection,'' American Petroleum Institute's adoption of certain standards applicable to offshore drilling and related operations, and the development of the Center for Offshore Safety, a group whose mission is to promote safety in offshore drilling, completions, and operations by offering information, tools, and opportunities for industry collaboration. The commenter also stated that the federal government has instituted a number of changes by reorganizing the Minerals Management Service and issuing new rules and requirements that make the prospect of future catastrophic spills even more remote.

Response: We recognize the efforts that have been made to reduce the likelihood of future oil spills and improve oil spill response efforts. Federal agencies, including BOEM, and oil and gas industry groups have instituted a number of safeguards, standards, and best practices to help reduce the likelihood of a future spill. The industry is to be commended for their efforts to further reduce the risks of spills. However, these efforts do not eliminate the threat of oil spills and spill response activities to the species. Changes made at the federal level have been to further reduce the likelihood of ''catastrophic spills'' and are likely to be beneficial; however, as described elsewhere in the rule, GOMx Bryde's whales are susceptible to adverse effects from spills regardless of the spill's size. Furthermore, we have found that regulatory mechanisms aimed at reducing the threat of oil spills or spill response activities are inadequate to protect the species, as discussed in more detail under the response to comments on Existing Regulatory Mechanisms. For these reasons, we conclude that we have accurately stated the likelihood of impacts and the risk to the species.

Comments on the Threat of Vessel Collision

Comment 32: We received several comments on the risk of vessel collisions to GOMx Bryde's whales and level of shipping traffic in the BIA. Joint industry commenters stated that vessel collisions have never been a significant source of Bryde's whale mortality in the Gulf of Mexico, or anywhere else in the world, with the exception of the heavily trafficked Hauraki Gulf off New Zealand. Vessel collisions are incredibly rare for Bryde's whales in the Gulf of Mexico and are not a threat to the species. Commenters stated that ship strike mortality is low throughout the Bryde's whale's worldwide range, as shown by two sources which contain three records of ship strike Bryde's whale mortalities occurring in locations other than New Zealand—a 2001 Marine Mammal Commission review of whale strandings and collision reports dating back to the 1800s, and the International Whaling Commission's online ship strike database. The commenters stated that, since the 2001 Marine Mammal Commission review, NMFS has reported only one additional incident of a Bryde's whale being killed as the result of ship strike in the Gulf of Mexico. The commenters also state that vessel traffic in the Bryde's whale BIA is low, as demonstrated by NOAA's tracking of transponder data, and likely is the reason for the relative absence of vessel collisions with Bryde's whales in the Gulf of Mexico. Another commenter stated that there is a high density of vessel traffic in the northern Gulf of Mexico, as well as commercial shipping lanes that transit through the Bryde's whale BIA. Two other commenters stated that vessel collisions with GOMx Bryde's whales might increase after the moratorium on new lease sales in the EPA expires in 2022. If the EPA was open to energy exploration, development, and production, and vessel traffic increased in areas that overlap with Bryde's whale habitat, the risk of vessel collisions may also increase. A commenter stated that the distribution of vessels relative to Bryde's whale distribution, coupled with the species' vulnerability to vessel collisions, suggest this threat needs to be mitigated. Lastly, a commenter stated that vessel collision is a significant threat, considering that mariners have difficulty sighting whales at night which limits their ability to quickly change course and avoid collision.

Response: We find that vessel collisions are a threat to the species. The number of reported vessel collisions with Bryde's whales in the Gulf of Mexico and elsewhere worldwide, with the exception of New Zealand, is likely underestimated because GOMx Bryde's whales are an offshore species and have low carcass detection and recovery rates compared to more coastal species (*e.g.,* New Zealand Bryde's whale, humpback whale, and right whale; Laist *et al.,* 2001; Jensen and Silber 2004; Williams *et al.,* 2011; Waring *et al.,* 2013). In the southern hemisphere, Bryde's whales (*B.edeni*) are the third most commonly reported species struck by ships (Van Waerebeek *et al.,* 2007). One GOMx Bryde's whale (a lactating female) is known to have been struck by a ship in 2009 (Waring *et al.* 2013). Williams *et al.* (2011) estimate that as few as 2 percent of cetacean deaths in the Gulf of Mexico are actually detected. The 2009 ship struck GOMx Bryde's whale was readily documented because the animal was struck, pinned across the ship's bow, and transported on the bow for likely tens or possibly hundreds of miles before it was detected in the Port of Tampa Bay, Florida (Waring *et al.* 2013). Comparatively, in New Zealand, where Bryde's whales occur nearshore and the probability of detecting carcasses is high, six of the seven Bryde's whale carcasses reported in the IWC database washed ashore (IWC ship strike database, accessed June 6, 2017, *https://iwc.int/index.php?cID=872&cType=document*).

The GOMx Bryde's whale population likely numbers fewer than 100 animals (Rosel *et al.* 2016). There are several major shipping lanes cross the GOMx Bryde's whale's BIA, with moderate vessel densities, connecting ports in Mobile, Alabama; Pensacola, Panama City, Tampa Bay, Florida, which increase the risk to vessel collisions.

Given the species' small population and restricted range, the species is particularly vulnerable to threats from vessel collisions. Any human induced mortality can have population-level consequences to small populations of whales (Laist *et al.* 2001, Jensen and Silber 2004). Thus, although the number of reported vessel strikes and mortalities to Bryde's whales outside of New Zealand is low, given the low abundance and the low probabilities of carcass detection and recovery rates for GOMx Bryde's whales, we conclude that vessel strikes and moralities to GOMx Bryde's whales pose significant threat to this subspecies.

Lastly, we agree with the commenters who noted that vessel collisions are a threat to Bryde's whales given the species' vulnerability to vessel collisions and mariner's sighting abilities. The spatial overlap between vessel traffic and GOMx Bryde's whale distribution, the difficulty of sighting a whale at the surface at night, Bryde's whale diving behavior (spending 88 percent of their time at night within 15 m of the surface; Soldevilla *et al.,* 2017), and the limited ability of large ships to change course quickly enough to avoid a whale all contribute to the risk of vessel collisions to GOMx Bryde's whales. We also agree that any increase in the number of vessels in the Bryde's whales' habitat, such as could occur following the expiration of the moratorium on lease sales, would increase the severity of this threat.

Comment 33: Joint industry commenters stated that NMFS incorrectly concluded that the construction of the third lane of the Panama Canal would expand vessel traffic in the Gulf of Mexico and increase the risk of vessel collision with GOMx Bryde's whales. The commenters stated that NMFS relied on a report (Institute for Water Resources, 2012) on port modernization that contained figures regarding increases in cargo tonnage, not increases in vessel traffic, as support for the conclusion that vessel traffic and the associated risk of vessel strike would increase following the canal modernization. The projected increase in the use of post-Panamax vessels could result in decreased vessel traffic, given the larger capacity of these vessels. In addition, shipping between the Panama Canal and two of the Gulf of Mexico's largest ports (Port of South Louisiana and Port of Houston) would likely not traverse the areas where Bryde's whales are most commonly found.

Response: We agree with the SRT's assessment that vessel collisions are a current threat to the GOMx Bryde's whale and that the threat of vessel collisions may increase in the future given the expansion of the Panama Canal (Institute for Water Resources, 2012). The increased use of the larger post-Panamax ships (larger vessels using the canal post-expansion) is just one factor in evaluating the amount of vessel traffic expected in the Gulf of Mexico in the future. As stated in the status review, as a result of the re-inauguration of the Panama Canal, freight transport may be redistributed from the West Coast Pacific ports to southeastern U.S. ports, including those in the Gulf of Mexico. Transshipment service hubs also may arise with the use of these larger vessels. Since not all ports will be able to accommodate the larger, post-Panamax vessels, smaller feeder vessels may be used to deliver cargo received at these hubs from the larger vessels to locations unable to receive the larger vessels directly (Institute for Water Resources 2012). In addition, historical vessel call data available from the Maritime Administration's website (*https://www.marad.dot.gov/resources/data-statistics/*) shows that from 2002 to 2013, vessel calls at the top 20 U.S. Gulf of Mexico ports doubled from 17,200 to 34,700 vessel calls. We expect demand for shipping to continue to increase due to population growth in the south. The U.S. Census Bureau projects a population growth rate of just less than 28 percent between 2015 and 2025. Thus, the best scientific and commercial data available indicate that ship traffic is likely to increase in all of the Gulf of Mexico, including within Bryde's whale habitat, even with the reliance on vessels with larger cargo capacity. We agree with the commenters' observation that vessel traffic from the Panama Canal specifically to the Port of Louisiana and Port of Houston will not likely traverse the GOMx Bryde's whale BIA. However, we conclude that the threat of vessel collisions is a high severity threat to the subspecies and that the threat may increase in the future.

Comments on Exposure to and Effects of Anthropogenic Noise

Comment 34: We received two sets of comments stating that NMFS provided no direct evidence that exposure to anthropogenic noise harms Bryde's whales. Joint industry commenters stated that the studies that NMFS cites in the proposed listing rule regarding impacts of noise pertain to other marine mammals or marine mammals in general, and that NMFS has not provided any direct evidence that there are negative acoustic impacts on Bryde's whales. Another commenter stated that NMFS previously concluded that ''there is no evidence that serious injury, death, or stranding of marine mammals can occur from exposure to airgun pulses, even in the case of large air gun arrays,'' and that we do not have a basis to change our position in this rulemaking. In addition, a BOEM Science Officer has stated that ''there has been no documented scientific evidence of noise from air guns used in geological and geophysical seismic surveys adversely affecting marine mammal populations or coastal communities.'' Another commenter stated that acute or chronic exposure to anthropogenic noise can have direct or indirect impacts to marine mammal species and that there is a substantial body of published scientific literature demonstrating the impacts of noise on baleen whale vital behaviors (Castellote *et al.,* 2012; Cerchio *et al.,* 2014; Blackwell *et al.,* 2015; Nowacek *et al.,* 2015; Shannon *et al.,* 2015).

Response: In the proposed rule, we concluded that Bryde's whales are impacted by anthropogenic noise, and noted the potential for acute and chronic impacts of noise. Acute impacts of noise-producing activities include auditory injuries or behavioral responses and tend to occur relatively nearby the source. Chronic impacts are those caused by long-term elevated ambient noise from multiple noise sources that can occur at extended distances from the sources and include masking, stress, and habitat degradation and associated impacts. Ambient noise is the average background noise level in an environment and is the combination of physical (*e.g.,* wind, waves, earthquakes), biological (*e.g.,* fish calls, mammal calls, snapping shrimp) and anthropogenic (*e.g.,* shipping, seismic surveys, sonars) noise sources present. The studies we relied on represent the best scientific information available from which to evaluate the impacts of noise on the GOMx Bryde's whales. The different sources of anthropogenic noise and their associated impacts are further discussed in the status review (Rosel *et al.,* 2016) and proposed rule (81 FR 88639). Some of the studies were of other baleen whale species, but as we explained in the proposed rule, it is reasonable to expect similar effects on Bryde's whales because the auditory abilities of all baleen whale species are considered to be broadly similar based upon vocalization frequencies and ear anatomy (Ketten *et al.,* 1998). In addition, as we stated above, energy exploration, production, and development in the northern central and western Gulf of Mexico, including the

noise from these activities, likely contributed to the curtailment of the species' range and continued activities constrain the species' range.

We are not changing our position regarding the effect of sound from air gun pulses. In the proposed rule, we noted that seismic surveys have the potential to cause acute auditory injury to marine mammals within 100m—1km of airguns with received levels of 230 dB re 1 μPa (peak) or higher (Southall *et al.,* 2007). In the 2016 Technical Guidance, this threshold was reduced to 219 dB re 1 μPa (peak), which indicates an area of potential acute auditory injury at equal or greater distance from the sound source than that discussed in Southhall *et al.,* 2007. Contrary to the commenter's statement, we did not state that we have direct evidence that serious injury, death, or stranding from airguns has occurred for GOMx Bryde's whales. We also noted that the whales could experience behavioral responses, including strong avoidance, as has been documented in other baleen whale species. In addition, behavior disturbances can cause energetic effects (*e.g.,* through avoidance of preferred feeding habitat, or interruption of feeding) or interfere with critical behaviors (*e.g.,* cow-calf communications or adult mating behaviors) in a manner that may reduce reproductive success or survivorship which can lead to population level effects depending on the scale of the impacts and the status of the population. As indicated in the literature cited in the status review, such behavioral responses can occur if the activity occurs within 8 km of a whale (Rosel *et al.,* 2016). The commenters cite an article by a BOEM Science Officer entitled, *The Science Behind the Decision: Answers to Frequently asked Questions about the Atlantic Geological and Geophysical Activities Programmatic Environmental Impact Statement (PEIS),* to support their statement that noise from airguns does not adversely affect marine mammals. The article suggests there are no population-level effects to marine mammals as none have been documented. However, as BOEM stated in a follow-up to this article, ''[we] should not assume that lack of evidence for adverse population-level effects of airgun surveys means that those effects may not occur'' (BOEM, 2015; *www.boem.gov/BOEM-Science-Note-March-2015/*). In addition, while the article notes that there have been no documented reports of marine mammals being killed, it also states that marine mammals can be injured by noise from airguns, and protection is needed to avoid harm. Thus, the article does not alter our conclusion that Bryde's whales could suffer acute auditory injury or experience behavioral effects if exposed to noise from seismic survey activity. The commenter provided no basis to draw a different conclusion about the impact from noise from seismic surveys and airguns to the GOMx Bryde's whale than we described in our proposed rule. We agree with the commenter who stated that acute or chronic exposure to anthropogenic noise can have direct or indirect adverse physical and behavioral effects on GOMx Bryde's whales, as further described in the status review and proposed rule (Rosel *et al.,* 2016; 81 FR 88639, December 8, 2016).

Comment 35: Joint industry commenters stated that NMFS failed to show that Bryde's whales in the Gulf of Mexico are exposed to marine sound. The commenters stated that, although ship noise likely occurs in the Gulf of Mexico, the noise in the De Soto Canyon is likely less than other areas in the Gulf because commercial fishing vessels, which constitute a large portion of marine traffic in the Gulf, are prohibited from fishing in the De Soto Canyon area. According to the commenter, much of the area where Bryde's whales are found is under speed restrictions contained in the Joint Notice to Lessees and Operators on ''Vessel Strike Avoidance and Injured/Dead Protected Species Reporting'' (BOEM NTL No. 2016–G01), which could reduce noise. Additionally, the commenters stated that oil and gas exploration does not occur in the De Soto Canyon or anywhere else in the EPA and therefore does not provide a meaningful contribution to anthropogenic noise levels. The commenters also stated that one of the peer reviewers agrees that the BIA for the Bryde's whales is an area of relative quiet in the Gulf of Mexico.

Response: We conclude that GOMx Bryde's whales are exposed to and affected by marine sound. Noise from oil and gas activities (*e.g.,* noise generated from vessels and aircraft, oil drilling and production, and seismic surveys) and shipping traffic constitute the primary sources of anthropogenic noise in the Gulf of Mexico. We disagree that Bryde's whales are exposed to less noise due to the prohibition of commercial fishing in the De Soto Canyon area. As described in the status review (Rosel *et al.,* 2016), noise associated with commercial fishing sonars and scientific sonars is ubiquitous, but it is not as pervasive as other sources of noise (*e.g.,* noise associated with shipping and other vessel traffic). In addition, we note that the only commercial fisheries prohibited in the De Soto Canyon Marine Protected Area (MPAs) are those fisheries that use pelagic longline gear as described herein.

The commenters noted that noise levels increase with vessel speed, but states that given the U.S. Department of the Interior, Joint Notice to Lessees and Operators cited in the comment above, much of the area where Bryde's whales are found is under speed restrictions. The Joint Notice applies to existing and future oil and gas operators in the Gulf of Mexico, and contains only recommended measures to reduce the risk associated with vessel strike or disturbance of protected species. One of the recommended measures is to ''Reduce vessel speed to 10 knots or less when mother/calf pairs, pods, or large assemblages of cetaceans are observed near an underway vessel when safety permits.'' However, these recommended measures are only applicable to specific lessees and operators, and are specific to the area where the individual operations occur, not specific to the GOMx Bryde's whale BIA. We disagree that most of the area where Bryde's whales are found is under speed restrictions. Moreover, any recommended measures applicable to oil and gas operations would not apply to commercial shipping or other vessels and thus would not reduce noise from those vessels, which is a primary source of low frequency noise in the Gulf of Mexico.

Oil and gas exploration can occur within the EPA, and we have not received any information to change our conclusion regarding this threat. The current moratorium expires in 2022, and even now only bans oil and gas leasing. The moratorium does not ban exploration activities, which include the use of seismic surveys, which are a primary source of low frequency noise in the Gulf of Mexico.

Comment 36: One commenter presented information from a 2016 acoustic propagation modeling effort, incorporated in BOEM's Gulf of Mexico OCS Proposed Geological and Geophysical Activities Draft (PEIS) (BOEM 2016–049), that estimated the extent of the reduction of listening area and communication space for marine animals due to seismic surveys. The model shows that the shallow waters in the upper De Soto Canyon suffer less habitat degradation due to noise levels than modeled sites to the west, in part due to the bathymetry of the canyon and the low levels of oil and gas activity. The commenter stated that this acoustic modeling information supports NMFS' observation that Bryde's whales may have experienced a range contraction

due to the acoustic habitat degradation from the heavily developed western Gulf of Mexico.

Response: We appreciate the information presented, and note that after the comment was submitted, BOEM published the final EIS (BOEM 2017–051), incorporating this modeling information. We agree with the commenter's characterization that anthropogenic noise may have contributed to the shift in the species' distribution.

Comment 37: Joint industry commenters stated that the threat of noise from oil and gas exploration, development, and production is at most a future risk dependent on the potential opening of the EPA to leasing for energy exploration, development, and production. Even if the EPA were open for leasing, any increase in noise is speculative and depends on future leasing decisions, lease interest, production rate, and presumptions about geology and market speculation. Even if oil and gas activities were to occur in important Bryde's whale habitat either now or in the future, those activities would be conducted pursuant to strict regulatory requirements that minimize the risk of exposure as outlined in BOEM's Notice to Lessees. Another commenter highlighted information from BOEM's Draft EIS on Gulf geophysical and geological surveys (BOEM 2016–049) and stated that over the next 10 years GOMx Bryde's whales would be exposed to noise from oil and gas exploration.

Response: We disagree that the threat of energy exploration and production is a speculative, future threat. The SRT evaluated the threat of anthropogenic noise based on its current threat to the species and the threat it poses over the next 55 years. Although few seismic surveys are currently occurring in the eastern Gulf of Mexico, in other areas in the Gulf of Mexico, outside of the species' currently known range, there are high levels of noise due to seismic surveys. We conclude this noise likely contributed to the species' range contraction. In addition, given the ability of low-frequency sounds to travel substantial distances, sounds from nearby surveys may be impacting the GOMx Bryde's whale within the BIA, contributing to ambient noise levels that have the potential to increase stress, mask vocalizations and environmental cues, and reduce foraging and reproductive success, and have the potential to affect the species' distribution and curtail the species' range. The highest levels of exploration activity (seismic surveys) are in the CPA, and the northwestern extent of the BIA is near the EPA/CPA boundary. We note that the species could suffer acute auditory injury if seismic survey activity occurred within 1 km of a Bryde's whale and could experience behavioral responses, including strong avoidance, if activity occurred within 8 km of a whale (Rosel *et al.,* 2016). None of the measures in the Notice to Lessees to address exposure to short-term noise at high sound pressure (resulting in acute auditory injury) would address the issues associated with exposure to chronic noise. BOEM has projected oil and gas activity levels in the EPA that show there will be wells drilled and associated activities occurring in the EPA as a result of current lease sales (BOEM 2015–033), and noise from these activities may affect the GOMx Bryde's whale. Moreover, the moratorium on new lease sales in the EPA expires in 2022, and thereafter, noise produced from oil and gas activities is likely to increase within the Bryde's whale BIA. Post-moratorium, the whales could be exposed to ambient noise levels that have the potential to mask communications, among other effects, and to discrete incidences of noise that have the potential to cause acute auditory injuries.

We appreciate the comment with information from BOEM's now-finalized EIS (BOEM 2017–051) regarding the sound levels that Bryde's whales could be exposed to from seismic oil and gas surveys taking place in the entire Gulf of Mexico, including the EPA. Information from this comment supports our conclusions regarding the impacts of noise from oil and gas activities on GOMx Bryde's whales in the future if energy exploration, development, and production were to expand into the EPA.

Comment 38: One commenter stated that the modeled noise predictions that NMFS relied on from the status review were un-validated and inconsistent with real world data, as one of the peer reviewers noted. The commenter stated that NMFS cannot rely on models that do not reflect real world measurements.

Response: The SRT presented model outputs from the Cetacean and Sound Mapping (CetSound) working group to understand the potential contribution from different sound sources to ambient noise in the Gulf of Mexico and the potential geospatial distribution of ambient noise. One of the peer reviewers of the draft status review report recommended omitting the models due to the potential discrepancy with measured data. The SRT took into account the peer reviewer's comments and explained that the CetSound models in the BIA are consistent with the real world measurements described in Rice *et al.,* 2014 and Wiggins *et al.* (in review at the time the status review was developed, and published in 2016) and made appropriate revisions in the final status review report to clarify this point. We conclude that, as is explained in the status review, a comparison of sound levels detected by Marine Autonomous Recording Units and High Frequency Acoustic Recording Packages and the CetSound predictions indicates that the predictions are a reasonable approximation of the range of ambient noise, considering the differences in spatial and temporal scales of the models and in-situ measurements. When seismic survey activity is low in the EPA, ambient noise levels are likely to be within the range the model predicts for total shipping noise, and when seismic survey activity is higher in the EPA (near 2009 levels), ambient noise levels are likely to be within the range the model predicts for total shipping and seismic noise.

Comment 39: One commenter stated that ambient noise levels in the Gulf of Mexico present no harm to the GOMx Bryde's whale under current or historical standards for evaluating the levels at which noise will cause injury or behavioral effects. The commenter stated that the average ambient noise levels cited in the status review are below those at which NMFS believes the species will experience auditory impacts, as set forth in NMFS' 2016 Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing, and the historical levels, which commenters state are 180 dB for physical injury and 160 dB for behavioral effects. The commenters stated that the Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing changed the acoustic standards for physical injury, but did not change the 160 dB behavioral effects standard. The commenter also stated that the status review incorrectly states that ambient noise sound pressure levels may exceed thresholds for behavior disturbances during a proportion of the year in certain regions (*e.g.,* MARU sites HF4 and HF7 in the Central Planning Area, Table 6, and Figure 14). According to the commenter, this statement is incorrect because levels recorded at those sites are below the thresholds. The commenters stated that NMFS needs to develop a specific standard of harm before it can assess the level of risk to Bryde's whales from exposure to anthropogenic noise.

Response: We have sufficient information to evaluate the threat to the GOMx Bryde's whale from

anthropogenic noise, including the threat from ambient noise (the average background noise levels that the animals experience). We described the research on the effects of noise on marine mammals in the status review and proposed rule (Rosel *et al.,* 2016; 81 FR 88639, December 8, 2016). We concluded GOMx Bryde's whales are being affected by noise, caused primarily by vessels and commercial shipping traffic and seismic surveys. In particular, we find that exposure to noise from these sources can increase stress, mask communication and environmental cues, lead to reduced foraging and reproductive success, and lead to habitat displacement. We also conclude that noise associated with energy exploration, development, and production likely contributed to the species' range contraction.

In addition to discussing the effects of acute and chronic exposure to noise, the SRT evaluated whether ambient noise levels would exceed the thresholds NMFS has used to evaluate effects from acute, or short-term, exposure to noise. Although the acute exposure thresholds are not intended to be used to evaluate the effects of exposure to constant background noise, the SRT conducted this comparative analysis to determine whether the GOMx Bryde's whale is continuously being exposed to noise at levels that would cause acute auditory injury, or result in behavioral effects even if the species was temporarily exposed.

Thus, the SRT compared, measured, and modeled ambient noise levels to NMFS' acoustic thresholds for determining whether sound at a given level constitutes Level A or Level B harassment for the purpose of incidental take permitting, as those terms are defined under the MMPA. While the SRT was finalizing the status review, NMFS was in the process of updating the acoustic thresholds for auditory injury. The status review refers to earlier-existing thresholds, stating that the threshold for Level A harassment, which includes the potential for injuries, was 180dB, and the threshold for Level B harassment, which refers to behavioral effects, was 160 dB for impulsive sound and 120 dB for non-impulsive sound. The SRT did not determine at what point noise from seismic or shipping activities would cause Level A or Level B harassment. The purpose of the status review analysis was not to evaluate noise that might be harassment under the MMPA, but to evaluate threats to the species to inform our ESA listing decision. In 2016, we published Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing—Underwater Acoustic Thresholds for Onset of Permanent and Temporary Threshold Shifts (2016 Technical Guidance). This document provides acoustic thresholds for assessing auditory impacts in marine mammal hearing for all sound sources. It updated the 180 dB threshold used to assess the onset of auditory injury, but did not update or address the threshold for evaluating behavioral harassment from non-impulsive noise (*e.g.,* continuous noise), and the status review uses the 120 dB for evaluating behavioral effects from continuous noise sources. The status review evaluated whether ambient noise levels would exceed this 120 dB threshold.

Ambient noise levels measured at certain locations (MARU sites HF4 and HF7 in Table 6, Figure 14 in the status review in the WPA and CPA) may exceed the 120 dB threshold for determining when exposure to non-impulsive noise may cause behavioral disturbances. The SRT's analysis relied on noise levels for the ⅓ octave band level centered at 100 Hz only, to allow comparisons at the frequencies at which GOMx Bryde's whales produce their calls (Rosel *et al.* 2016 at 48, citing Širović *et al.* 2014). However, noise impacts occur over a wider frequency bandwidth which must be considered to appropriately compare these noise levels to broadband noise levels, such as 120 dB threshold. The sound level in any narrow-band (*e.g.,* the ⅓ octave band centered at 100 Hz) will be lower than the total sound level across the full frequency band. As discussed in the status review, the full impacts of sound (injury, physiological responses, and behavioral responses) can occur throughout the Bryde's whale's hearing frequency range, and therefore, sound levels need to be integrated over this broader range to understand the full impacts of sound. Based on the broadband data presented in Rice *et al.* (2014b) and Wiggins (in review at the time the status review was developed, and published 2016), the SRT estimated that ambient noise levels in the 10–200 Hz frequency range may exceed 120 dB at two locations where sound was measured (the MARU HF4 and HF7 sites in the WPA and CPA). Although those sites are outside of the EPA, as the SRT explained, noise levels in the BIA could reach the levels recorded at these sites when seismic survey activity occurs closer to or within the BIA. The models including seismic survey noise predicted higher noise levels in the BIA, based on data from 2009 when seismic survey activity was high in the BIA. At those levels, the SRT predicted that the whales would be unlikely to hear their closest neighbors. Thus, we conclude that if seismic survey activity were to increase in the EPA and return to 2009 levels, which is possible following expiration of the moratorium, ambient noise levels could be so high as to preclude the species from communicating. Thus, expanding seismic survey activity could prevent the species from communicating at all times. Moreover, high background noise reduces the ability of acoustically sensitive species, such as the GOMx Bryde's whales, to detect and interpret critical acoustic cues, such as those used for communication, detecting predators or prey, or navigation, even if they do not exceed the thresholds for behavioral effects used to evaluate impulsive sound. We conclude that high background noise is a threat to the species.

The best scientific information available discussed above does not support the commenter's position that noise levels present no harm or that NMFS has no standards to measure harm. We discussed the potential harm from ambient noise and acute noise, and compared ambient noise levels to the thresholds at which the agency has determined discrete exposure to noise could cause acute auditory injury or behavioral responses. Moreover, the information in the 2016 Technical Guidance and the agency's thresholds for evaluating behavioral disturbances are not the only tools to be used in analyzing the effects of noise on a species. As stated in that 2016 Technical Guidance, the agency has a number of tools beyond just the guidance, including behavioral impact thresholds, auditory masking assessments, evaluations to help understand the effects of any particular type of impact on an individual's fitness, population assessments, etc., to help evaluate the effects of noise.

Comments on the Threat of Fishing Gear Entanglement

Comment 40: Joint industry commenters stated that entanglement has never been shown to pose an extinction threat to Bryde's whales in the Gulf of Mexico or anywhere else in the world. The joint industry commenters noted: (1) There have been only a handful of Bryde's whale entanglements worldwide and even fewer instances where the entanglement resulted in mortality, (2) fisheries and gear that entangled Bryde's whales are not used near important Bryde's whale areas, (3) in the Gulf of Mexico, there have been no reports of Bryde's whale

entanglement or other fishing-related mortality or serious injury between 1998 and 2013, (4) there are no known interactions between Bryde's whales and pelagic longline gear or bottom longline gear, (5) of the 12 fisheries analyzed for potential fishing gear interactions in the status review, only the butterfish trawl fishery is a potential threat to Bryde's whales, but it has only two participants currently permitted, (6) other fisheries are either unlikely to harm Bryde's whale (hook and line), have the highest effort west of De Soto Canyon or in shallower water than Bryde's whales inhabit (shrimp trawl), or are prohibited in the De Soto Canyon (pelagic longline), and (7) fishing effort in the Gulf of Mexico is declining. Another commenter concurred with the SRT's determination that fishing gear entanglement is at least a moderate threat to the population. Other commenters stated that while there are few known entanglements in U.S. waters, the lack of observer coverage for trap/pot and trawl fisheries and heavy reliance of self-reporting may underestimate the extent of fishery-related mortality and serious injury, as self-reports of interactions by fisheries often are significantly underreported, and that even known levels of entanglement would threaten the species.

Response: The degree of risk from direct fishery interaction is a function of whale size and behavior, gear type, and spatial overlap between fishing effort and habitat. The SRT concluded that five of the 12 commercial fisheries that they evaluated overlap or possibly overlap with the Bryde's whale BIA (*i.e.,* the Gulf of Mexico commercial pelagic longline fishery, the bottom longline component of the Gulf of Mexico reef fish fishery, the Gulf of Mexico shark bottom longline fishery, the Gulf of Mexico shrimp trawl fishery, and the Gulf of Mexico butterfish trawl fishery). The SRT also concluded that these five fisheries use gear types (*i.e.,* pelagic longline, bottom longline, and trawl) that pose entanglement risk to whales (see Table 7, Rosel *et al.* (2016). Trap/pot fisheries in the Gulf of Mexico do not overlap with the BIA so they are not an entanglement concern for this species. The other fisheries not identified above were found to have limited spatial overlap and/or to use gear that does not pose an entanglement risk and therefore that is unlikely to harm GOMx Bryde's whale. The proposed rule assessed the threat of fishing gear entanglement based on the spatial overlap between these fisheries and the Bryde's whale BIA, the amount of fishing effort, and the potential for interactions given the whale's foraging behavior. The status review notes known entanglements and explains that the bycatch rates are often underestimated as marine mammals may become entangled in, or hooked by, fishing gear and swim away with injuries or deaths that are unobserved and accounted for in bycatch statistics (Rosel *et al.,* 2016). High rates of entanglement scarring on living baleen whales indicate that fishery entanglements may occur more frequently than indicated by statistics on known bycatch mortality. The status review stated that the royal red shrimp trawl fishery and butterfish trawl fishery have limited spatial overlap with the BIA and those overlapping areas represent a small portion of fishing effort. The SRT also noted that there are only two participants within the butterfish trawl fishery. Consequently, the SRT determined that these trawl fisheries are unlikely to harm GOMx Bryde's whale. However, the pelagic longline and bottom longline fisheries were found to present an entanglement risk based on their effort in the BIA and their potential for interactions given the gear type and the whale's behavior. Pelagic longlines are a known entanglement threat to baleen whales because the majority of mainline gear is in the water column (Andersen *et al.,* 2008). Approximately two thirds of the Bryde's whale BIA has been closed to commercial pelagic longline under the De Soto Canyon Marine Protected Area (MPA); however, the BIA is larger than the MPA and one third of the BIA is still open to pelagic longline fishing (65 FR 47214; August 1, 2000). The MPA is composed of two rectangular areas, one of which covers the northern part of the BIA, the other covering the southern part, leaving the middle section of the BIA open to pelagic longline (Figure 20B in Rosel *et al.,* 2016). In addition, there are no restrictions or areas within the BIA closed to bottom longline fishing. Bottom longline gear is an entanglement risk to bottom-foraging whales, given that the majority of mainline gear is anchored on the seafloor. The GOMx Bryde's whales likely forage on or near the seafloor bottom, increasing the potential for interaction with bottom longline fisheries. Based on the best scientific and commercial information available, we concluded that fisheries that use pelagic longline and bottom longline gears that operate within the BIA pose an entanglement risk to the GOMx Bryde's whale.

Comment 41: The State of Louisiana requested that we conduct additional analysis and interpretation of the status review's Appendix 2 ''Vessel Monitoring System and Fishery Effort Geospatial Density Distribution.''

Response: As explained in the status review, Appendix 2 depicts fishing effort for a number of fisheries based on Vessel Monitoring System data that, where available, indicate where effort occurs for each fishery. The SRT relied on Appendix 2 and other information to evaluate the spatial distribution of commercial fisheries in the Gulf of Mexico, and to evaluate the risk to the species from fishing gear entanglement. Based on their review, the SRT found that 5 fisheries with gear types that may interact directly with the species may have effort within or along the edge of the known range of GOMx Bryde's whales in the northeastern Gulf of Mexico, as described in Table 7 of the status review. As we explained in the proposed rule, based on the SRT's scoring, the threat of entanglement in commercial fishing gear is ''moderate'' in severity with ''moderate'' certainty, and we considered this in our evaluation of section 4(a)(1) factor E. The State of Louisiana did not express any specific concerns regarding Appendix 2. We find the information contained in the status review, including the information provided in Table 7 and Appendix 2, represents the best available scientific and commercial information upon which to evaluate the threat of fishing gear entanglement on the GOMx Bryde's whale. We will continue to monitor this threat when we conduct our review of the listed species (ESA section 4(c)(2)).

Comments on the Threat of Military Activities

Comment 42: The Navy's Energy and Environmental Readiness Division stated that the proposed rule is consistent with their understanding of the life history, abundance, and genetics information for the GOMx Bryde's whale. They referenced the most significant threats to the GOMx Bryde's whale and described measures the Navy implements to avoid and minimize harm to marine mammals from oil releases from vessels, vessel collisions, and training and testing activities. They provided information on specific operational procedures that they state would help minimize and avoid harm to GOMx Bryde's whales while conducting their activities (*e.g.,* maintaining an oil spill prevention and response program for vessels, having personnel charged with observing objects and disturbances in water to reduce the potential for

vessel interactions, maintaining mitigation zones where training and testing activities may be curtailed when marine mammals are sighted). They also communicated their need to conduct limited training and testing activities in the Gulf of Mexico. They stated that the Eastern Gulf of Mexico Planning Awareness Area encompasses the GOMx Bryde's whales BIA, and indicated the Navy avoids planning major training and testing exercises, when feasible, within this area.

Response: We appreciate the Navy's efforts to implement procedures that may minimize impacts to marine mammals, including the GOMx Bryde's whale. As noted in the proposed rule, section 7(a)(2) of the ESA requires that all Federal agencies ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of endangered or threatened species or destroy or adversely modify designated critical habitat. Federal agencies must consult with NMFS on their actions that may affect listed species under our jurisdiction. We have previously consulted on the Navy's training exercises, including the Atlantic Fleet Training and Testing exercises, and recognize that once the rule is finalized, reinitiation of consultation may be required, to the extent the newly listed species may be affected by the action (50 CFR 402.16). We appreciate the Navy recognizing the GOMx Bryde's whale's BIA and expanding the boundaries of their Planning Awareness Area to encompass that area as it is an important area for the species.

Comments on the Information Quality Act and Peer Review of the Status Review

Comment 43: One commenter stated that the proposed listing rule does not comply with the Information Quality Act (IQA) or guidance on peer review of science documents issued under the IQA and other authorities because NMFS has not classified the rule as ''influential'' or ''highly influential.'' The commenter stated that the proposed listing rule is not Influential Scientific Information (ISI), but is a Highly Influential Scientific Assessment (HISA) because it is novel, controversial, precedent-setting, or has significant interagency interest. The commenter stated that, because the rule is HISA, NMFS was required to provide opportunity for public comment to the peer reviewers, and to provide public comments submitted to NMFS to the peer reviewers. Another commenter stated the proposed listing and the information upon which it is based adheres to information quality standards.

Response: We disagree that our proposed listing rule does not comply with the IQA or guidance on peer review of government science documents. In our Guidance on Responding to Petitions and Conducting Status Reviews under the Endangered Species Act, updated May 2016, we state that it is our policy and practice to seek peer review of the scientific information underlying our determinations under section 4 of the ESA, which includes status reviews where they have been prepared. We also state that we seek peer review of the underlying status review where one has been prepared, not the proposed listing rule, and that only one round of peer review (*i.e.,* peer review of the status review) is necessary. We also explain that peer review of the scientific and commercial information upon which we will base our listing determinations is informed by the Office of Management and Budget's (OMB) December 16, 2004, guidance regarding peer review of government science documents, issued under the IQA and other authorities (OMB Peer Review Bulletin) and NMFS' June 2012, policy directive containing guidance on the OMB Peer Review Bulletin, PD 04–108–4. Thus, consistent with our policy and OMB's Peer Review Bulletin, we did not seek separate peer review of the proposed listing rule, but did seek peer review of the status review.

Commenters state that we did not explain whether the proposed listing is ISI or HISA. Again, we did not seek peer review of the proposed listing. We did, however, seek peer review of the status review, which was classified as ISI. NOAA's Office of Chief Information Officer website at: *http://www.cio.noaa.gov/services_programs/prplans/ID337.html* clearly identifies the status review as an ISI product and provides additional information on the peer review conducted. ISI means scientific information the agency reasonably can determine will have or does have a clear and substantial impact on important public policies or private sector decisions. As noted in NMFS' Guidance on the OMB Peer Review Bulletin (PD 04–108–4) and NOAA's Information Quality Guidelines, a clear and substantial impact is one that has a high probability of occurring. The status review was correctly identified as ISI because it is used in informing our response the petition to list the GOMx Bryde's whale and our proposal to list the GOMx Bryde's whale as endangered.

An HISA is a subset of ISI and is defined as a scientific assessment that has a potential impact of more than $500 million in any one year on either the public or private sector or is novel, controversial, or precedent-setting, or of significant interagency interest. The status review is not novel or precedent-setting as NMFS regularly prepares ESA status reviews and ESA listing determinations very similar to this one. While some individuals may disagree with our determination to list the GOMx Bryde's whale as endangered, no controversy or significant interagency interest surrounds the status review. We have no information that suggests the impact of the status review would be greater than the HISA threshold, nor have commenters provided any such information. Thus, the peer review was not completed following the process for peer review of HISA, including any guidelines for public participation. We agree with the commenter who stated that we adhered to information quality standards in developing the status review and proposed rule.

Comment 44: One commenter stated that NMFS did not comply with the requirements of the OMB Peer Review Bulletin for review of ISI because the peer reviewers lacked balance, independence, and were not ''informed of applicable access, objectivity, reproducibility and other quality standards under the federal laws governing information access and quality.'' The commenter stated that the peer reviewers were not balanced because none were industry experts. The commenter also stated that one peer reviewer was not independent because that reviewer is a NMFS employee.

Response: We adhered to the OMB Peer Review Bulletin and our guidance on the OMB Peer Review Bulletin in the selection of the peer reviewers to ensure a balanced review by independent experts and to prevent any real or perceived conflicts of interest. NMFS' guidance on the OMB Peer Review Bulletin directs NMFS to select peer reviewers based on expertise, balance, conflicts, and independence (PD 04–108–4, Appendix A, II.3). We chose three scientists with the requisite expertise, experience, and skill in marine mammal biology, ecology, genetics, and acoustics to review the status review. To ensure balance, we selected peer reviewers who represent a diversity of relevant scientific and technical perspectives and fields of knowledge and who we determined could offer fair and balanced viewpoints regarding the SRT evaluation of the status of the species, including the interpretation of available literature supporting that evaluation. With respect to the independence of the peer

reviewer, NMFS' Guidance on the OMB Peer Review Bulletin states that peer reviewers shall not have participated in development of the work product to be reviewed. None of the peer reviewers tasked with reviewing the status review were involved in developing the status review. The OMB Bulletin does not foreclose NMFS from seeking peer review by a NMFS employee. In addition, all peer reviewers were screened for potential conflicts of interest. Finally, the peer reviewers were informed of applicable access, objectivity, reproducibility, and other quality standards under federal laws governing information access and quality. We provided the peer reviewers with a link to the OMB Peer Review Bulletin and notified them of how we would attribute and disclose their comments consistent with the applicable guidelines. In addition, we provided a link to a website providing other NMFS scientific documents that have been subject to peer review, including the peer review plans for those documents, to serve as examples of previously completed peer reviews.

Comment 45: One commenter stated that NMFS violated requirements for peer review of ISI because the agency did not provide responses to peer reviewer comments on the status review. Joint industry commenters stated that although NMFS provided the text of the peer reviewer comments, NMFS did not make publically available the underlying document containing the comments, complicating the commenters' ability to understand the peer reviewer comments and whether they were addressed. As a result, joint industry commenters stated that the status review is flawed and does not represent the best scientific information available.

Response: NMFS complied with the OMB Peer Review Bulletin and NMFS' guidance on the OMB Peer Review Bulletin (PD 04–108–4) in conducting the peer review of the status review. In accordance with the OMB Peer Review Bulletin and our guidance on that Bulletin (PD 04–108–4) regarding peer review of ISI, we posted the peer review plan, charge statement to the peer reviewers, the peer review report, which summarizes the comments of the peer reviewers, and the final status review, which incorporates the response to peer reviewer comments, on the NOAA's Peer Review Agenda at: *http://www.cio.noaa.gov/services_programs/prplans/ID337.html.* Under our guidance, the peer review report must contain either a verbatim copy of each reviewer's comments (with or without specific attribution) or represent the views of the group as a whole, including any disparate and dissenting views (PD 04–108–4, Appendix A, II.5). Each reviewer prepared an overview or high level comments, which were included in the peer review report. The peer review report also includes the peer reviewers' substantive comments on particular text from the draft status review, where substantive comments were provided. The peer reviewers' non-substantive or stylistic comments the draft status review were not included in the peer review report. Thus, the peer review report meets the requirements of our guidance. Our guidance is clear ''that for ISI, the agency is not required to prepare a separate response'' to the peer review (PD 04–108–4 at 8).

Joint industry commenters state that it is difficult to understand the peer reviewer's comments and whether they were addressed. The commenters are referring to Peer Reviewer 2's comments. Peer Reviewer 2 provided an overview of his or her comments, as well as specific comments on language in the draft status review. Joint industry commenters point out a few of those specific comments as hard to follow. However, each statement that joint industry commenters indicate is difficult to follow was taken out of context. We do not find that Peer Reviewer 2's comments are difficult to follow. In addition, we do not agree that because NMFS did not complete an unrequired procedural step—providing additional documents from the peer review beyond those described above—the information in the status review underlying our determination is somehow rendered inadequate. Moreover, the commenter identifies no better available scientific or commercial information.

Comment 46: One commenter stated that the status review and proposed rule violated the IQA because the agency did not develop a pre-dissemination review certificate.

Response: The proposed rule underwent pre-dissemination review pursuant to Section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001, Public Law 106–554 (Information Quality Act). The pre-dissemination review is always conducted as part of our internal review process and a pre-dissemination review certificate is maintained as part of the administrative record for this decision. It is not our practice to publish the pre-dissemination review certificate, but it would be made available upon request. We have not received any such requests. In addition, as set forth in our Guidance on Responding to Petitions and Conducting Status Reviews under the ESA, updated May 26, 2016, the draft status review submitted to the peer reviewers is not intended for further distribution. It is distributed solely for the purpose of pre-dissemination peer review under applicable information quality guidelines and it does not represent, and should not be construed to represent, any agency determination or policy.

Comment 47: One commenter stated that the proposed listing rule should be withdrawn because it relies on two documents that do not themselves comply with the OMB Bulletin for Agency Good Guidance Practices, including (1) NMFS' Guidance on Responding to Listing Petitions and Conducting Status Reviews under the ESA and (2) NOAA's Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing. The commenter stated that because those two documents met one or more significance criteria under the OMB Bulletin for Agency Good Guidance Practices, NMFS should have followed that bulletin in developing the documents. The commenter stated that NMFS cannot rely on those documents until they me*et al*l applicable requirements under that bulletin, in addition to the IQA guidelines and the OMB Peer Review Bulletin.

Response: We do not agree that we need to withdraw the proposed listing rule. Section 4(b)(1)(A) of the ESA requires us to make listing determinations on the basis of the best scientific and commercial data available after taking into account certain efforts being made to protect the species. In making the current listing determination, we relied on the status review, which we believe compiled the best scientific and commercial data available on the species' taxonomy, distribution, abundance, life history, as well as the threats affecting the status of the species, existing regulatory mechanisms, and conservation efforts that affect the Bryde's whale, and other information discussed in the proposed and final rules.

The SRT relied on NMFS' Guidance on Responding to Petitions and Conducting Status Reviews under the ESA in developing the status review. As noted above, that document summarizes the process by which NMFS organizes and conducts status reviews pursuant to section 4(b)(1)(A) of the ESA. This procedural guidance document does not dictate the outcome of the status review or our listing determination. Comments on the process by which this procedural

guidance document was finalized are outside of the scope of this rulemaking.

The commenter assumed that references to ''NOAA acoustic guidance'' in the status review referred to NOAA's 2016 Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing. However, the status review was not referring to NMFS' 2016 Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing (''the 2016 Technical Guidance''). We acknowledge that the status review does not clearly cite the acoustic guidance that it references. In the two instances that the status review uses the terminology ''NOAA acoustic guidance'' (page 56, Rosel *et al.,* 2016), it is referring to acoustic thresholds in use at the time of the status review to determine whether sound at a given noise level constitutes Level A or Level B harassment for the purpose of incidental take permitting, as those terms are defined under the MMPA. Those thresholds are discussed earlier in the same section of the status review. As we note in response to Comment 39, the 2016 Technical Guidance did not update the threshold that the SRT used to evaluate the potential threat to the species from ambient noise and does not otherwise affect the validity of the noise analysis in the status review or this rulemaking.

Comment 48: Joint industry commenters state that the status review is difficult to interpret. As support, joint industry commenters cite the peer reviewer comment that the status review is difficult to follow because it introduces terms, such as ''dangerously small population'' and ''high risk of extinction,'' that are not used in ESA listing determinations.

Response: We do not find that the status review is confusing or flawed because it uses the terms ''high risk of extinction'' or ''dangerously small population.'' One of the peer reviewers suggested that the status review refrain from using these terms and stated that these terms could cause confusion because the number of mature individuals is not an ESA-listing factor and that extinction risk does not depend solely on population size. We disagree that the status review, or the listing decision based on it, is flawed because of how the status review team evaluated population size and extinction risk. The SRT was not tasked with making the listing determination, but rather was evaluating the species' extinction risk, which informs NMFS' listing determination. The SRT conducted its review in a manner consistent with established agency practices as in previous status reviews, and appropriately considered the species' risk of extinction in view of the threats to the species and demographic risks such as the species' total population size or abundance. The final status review clearly defines what the SRT considered to be ''high risk'' and a ''dangerously small population size.'' The SRT concluded that the small population size alone put the species at a high risk of extinction, and that the population size and the threats to the species further increase the extinction risk. To make the proposed listing determination, we used the best available scientific and commercial information on the GOMx Bryde's whale, including information summarized in the status review. We proposed to list the GOMx Bryde's whale as endangered after considering the threats to the species under section 4(a)(1), informed by the SRT's threats analysis, demographic risk analysis, and extinction risk assessment, and any conservation efforts to protect the GOMx Bryde's, as required under section 4(b)(1)(A).

General Support for the Proposed Listing Determination

Comment 49: We received 933 comments from the general public that were generally supportive of the listing of the GOMx Bryde's whale as endangered, and protecting their habitats. We received an additional 15 comments from non-governmental organizations supporting the proposed listing. The State of Mississippi also expressed their support for the listing determination. The Government of Cuba's Ministry of Science, Technology and Environment (CITMA) expressed their support of the subspecies determination and agreed that GOMx Bryde's whale is in danger of extinction. Further, CITMA explained that there are no records of *B. edeni* in Cuban waters.

Response: We appreciate the feedback received from these commenters.

Comment 50: The CITES Scientific Authority of Mexico stated that, according to their experts, they were able to confirm that the GOMx Bryde's whale population consists of about 33 individuals total, that the Gulf of Mexico population is a distinct from Bryde's whale populations worldwide, and that the GOMx Bryde's whales have low genetic diversity, and is exposed to various threats.

Response: We appreciate the commenter's feedback on our findings in the proposed rule. In the proposed rule, we noted various abundance estimates, including the Marine Mammal Protection Act abundance estimate used for management of the ''Northern Gulf of Mexico Bryde's Whale Stock'' of 33. However, we note that we do not conclude that the population consists of 33 individuals. Given the best available evidence and allowing for uncertainty, we conclude that the population likely contains fewer than 100 individuals, with 50 or fewer being mature. We appreciate support for our determination that the GOMx Bryde's whale is genetically isolated unit and is distinct from other whales in the Bryde's whale complex, and that the GOMx Bryde's whale is exposed to various threats, as described in the proposed rule and in this final rule.

Miscellaneous Comments

Comment 51: The Marine Mammal Commission urged NMFS to initiate recovery efforts and requested that NMFS develop a recovery program or recovery plan.

Response: Section 4(f) of the ESA requires the Secretary to develop recovery plans for the conservation and survival of ESA listed species, unless such a plan will not promote the conservation of the species. NMFS will convene a recovery team to develop a recovery plan for the GOMx Bryde's whale after finalizing this rule and completing determinations regarding the critical habitat designation.

Comment 52: One commenter stated that NMFS only briefly summarized concerns about climate change despite the fact that climate change may disproportionately affect the GOMx Bryde's whale due to its restricted habitat. The commenter stated that NMFS failed to consider information they provided on climate change. The commenter stated that climate change will result in larger, more frequent and severe weather events (*i.e.,* hurricanes and tropical storms) that could damage oil and gas production structures, resulting in additional oil spills, which would further threaten the GOMx Bryde's whale.

Response: The SRT considered relevant information pertaining to climate change [in?] preparing the status review, and we agree with the SRT findings on climate change in the proposed rule. The status review discusses the fact that climate change has the potential to influence hurricane intensity and frequency. However, we cannot speculate about the possibility of events such as oil and gas structure failure as a result of these storms. As discussed in the proposed rule, the impacts of climate change on cetaceans can potentially include range shifts, habitat degradation or loss, changes to

the food web, susceptibility to disease and contaminants, and thermal intolerance. However, impacts of climate change on the GOMx Bryde's whales remain speculative given the limited data currently available.

Summary of Changes From the Proposed Rule

Below we have included the support for our decision, which also was reflected in the proposed rule. The text below reflects some non-substantive changes to improve clarity, including clarifying the basis for our conclusion regarding section 4(a)(1) factors A, D, and E. We also have updated and corrected some citations and references throughout, and clarified the abundance estimates and species' range to refer to additional information in the status review. We revised the discussion of the species' range contraction under factor A for clarity, and revised our analysis of how the species is affected by noise associated with seismic surveys under factors A and E. In addition, we added a discussion of the inadequacy of regulatory mechanisms to address the threat of fishing gear entanglement under the discussion of factor D. The added information was discussed in the proposed rule, though not under factor D.

Biological Review

This section provides a summary of key biological information presented in the status review (Rosel *et al.* 2016), which provides the context and foundation for our listing determination. The petition specifically requested that we consider the Gulf of Mexico population of Bryde's whale as a DPS and list that population as an endangered species. Therefore, the SRT first considered whether the Bryde's whale in the Gulf of Mexico constituted a DPS, a subspecies, a species, or part of the globally distributed Bryde's whale population. This section also includes our conclusions based on the biological information presented in the status review.

Species Description

Bryde's whale (*B. edeni*) is a large baleen whale found in tropical and subtropical waters worldwide. Currently, two subspecies of Bryde's whale are recognized: a smaller form, Eden's whale (*B. e. edeni*), found in the Indian and western Pacific oceans primarily in coastal waters, and a larger, more pelagic form, Bryde's whale (*B. e. brydei*), found worldwide (Rosel *et al.* 2016). Like the Bryde's whale found worldwide, the Bryde's whale in the Gulf of Mexico has a streamlined and sleek body shape, a somewhat pointed, flat rostrum with three prominent ridges (*i.e.,* a large center ridge, and smaller left and right lateral ridges), a large falcate dorsal fin, and a counter-shaded color that is fairly uniformly-dark dorsally and light to pinkish ventrally (Jefferson *et al.* 2015). There is no apparent morphological difference between the Bryde's whale in the Gulf of Mexico and those worldwide. Baleen from these whales has not been thoroughly characterized, but the baleen plates from one individual from the Gulf of Mexico were dark gray to black with white bristles (Rosel *et al.* 2016). This is consistent with the description by Mead (1977), who indicated that the bristles of both Bryde's whale subspecies are coarser than those in the closely-related sei whale. Limited data (from 14 whales) indicate the length of Bryde's whales in the Gulf of Mexico is intermediate between the two currently recognized subspecies. The largest Bryde's whale observed in the Gulf of Mexico was a lactating female measuring 12.7 m in length, and the next four largest animals were 11.2–11.6 m in length (Rosel and Wilcox 2014). Rice (1998) reported adult Eden's whales rarely exceed 11.5 m total length and adult Bryde's whales from the Atlantic, Pacific and the Indian Ocean reach 14.0–15.0 m in length.

Genetics

In a recent genetic analysis of mtDNA samples taken from Bryde's whales in the Gulf of Mexico, Rosel and Wilcox (2014) found that the Gulf of Mexico population was genetically distinct from all other Bryde's whales worldwide. Maternally inherited mtDNA is an indicator of population-level differentiation, as it evolves relatively rapidly. Rosel and Wilcox (2014) identified 25–26 fixed nucleotide differences in the mtDNA control region between the Bryde's whale in the Gulf of Mexico and the two currently recognized subspecies (*i.e.,* Eden's whale and Bryde's whale) and the sei whale (*B. borealis*). They found that the level and pattern of mtDNA differentiation discovered indicates that GOMx Bryde's whales are as genetically differentiated from other Bryde's whales worldwide as those Bryde's whales are differentiated from their most closely-related species, the sei whale. In addition, genetic analysis of the mtDNA data and data from 42 nuclear microsatellite loci (repeating base pairs in the DNA) revealed that the genetic diversity within the GOMx Bryde's whale population is exceedingly low. Rosel and Wilcox (2014) concluded that this level of genetic divergence suggests a unique evolutionary trajectory for the Gulf of Mexico population of Bryde's whale, worthy of its own taxonomic standing.

The SRT considered this level of genetic divergence to be significant, indicating that the Bryde's whale in the Gulf of Mexico is a separate subspecies. To confirm its determination, the SRT asked the Society for Marine Mammalogy Committee on Taxonomy (Committee) for its expert scientific opinion on the level of taxonomic distinctiveness of the Bryde's whale in the Gulf of Mexico. The Committee maintains the official list of marine mammal species and subspecies for the Society for Marine Mammalogy. The Committee updates the list as new descriptions of species, subspecies, or taxonomic actions appear in the technical literature, adhering to principle and procedures, opinions, and directions set forth by the International Commission on Zoological Nomenclature. The Committee also reviews, as requested, formal descriptions of new taxa and other taxonomic actions, and provides expert advice on taxonomic descriptions and other aspects of marine mammal taxonomy. In response to the request made by the SRT, all of the Committee members who were available to respond (nine out of nine) voted it was ''highly likely'' that Bryde's whales in the Gulf of Mexico comprise at least an undescribed subspecies of what is currently recognized as *B. edeni.* This result constituted the opinion of the Committee, which is comprised of 15 members and makes decisions by majority vote (W. F. Perrin, Chair, Committee, pers. comm., 2015). Based on the expert opinion from the Committee and the best available scientific information, the SRT concluded Bryde's whales in the Gulf of Mexico are taxonomically distinct from the other two Bryde's whale subspecies. The SRT identified the Bryde's whale occurring in the Gulf of Mexico as a separate subspecies called ''GOMx Bryde's whale,'' and conducted the status review accordingly.

Our joint ESA regulations with the U.S. Fish and Wildlife Service state that, In determining whether a particular taxon or population is a species for the purpose of the Act, the Secretary shall rely on standard taxonomic distinctions and the biological expertise of the Department and scientific community concerning the relevant taxonomic group (50 CFR 424.11(a)). Under this provision, we must consider the biological expertise of the SRT and the scientific community, and apply the best available scientific and commercial

information when it indicates that a taxonomic classification is outdated or incorrect. The GOMx Bryde's whale has a high level of genetic divergence from the two recognized Bryde's whale subspecies (Eden's whale and Bryde's whale) elsewhere in the world. We relied on the biological expertise of the SRT and the Committee to interpret information relevant to the taxonomic status of the Bryde's whale in the Gulf of Mexico. We agree with the SRT and the Committee's determination that the Bryde's whale in the Gulf of Mexico is taxonomically at least a subspecies of *B. edeni.* Based on the best available scientific and commercial information described above and in the status review, we have determined that the Bryde's whale in the Gulf of Mexico is a taxonomically distinct subspecies and, therefore, eligible for listing under the ESA. Accordingly, we did not further consider whether the GOMx Bryde's whale population qualifies as a DPS under the DPS Policy.

Distribution

The status review (Rosel *et al.,* 2016) found that the historical distribution of Bryde's whale in the Gulf of Mexico included the northeastern, north-central and southern Gulf of Mexico. This was based on work by Reeves *et al.* (2011), which reviewed whaling logbooks of ''Yankee whalers'' and plotted daily locations of ships during the period 1788–1877 as a proxy for whaling effort, with locations of species takes and sightings in the Gulf of Mexico. These sightings by the whalers were generally offshore in deeper waters (*i.e.,* >1000 m), given their primary target of sperm whales (*Physeter microcephalus*). Reeves *et al.* (2011) concluded that whales reported as ''finback'' by ''Yankee whalers'' in the Gulf of Mexico were most likely Bryde's whales. Although all recent confirmed sightings of Bryde's whales have been in the northeastern Gulf of Mexico. Based on Reeves *et al.* (2011), the SRT found that that the historical distribution of Bryde's whales in the Gulf of Mexico was much broader and also included the north-central and southern Gulf of Mexico. Other baleen whales (*i.e.,* sei or fin whales) are extralimital to the Gulf of Mexico. Sperm whales and GOMx Bryde's whales are the only large whales regularly found in the Gulf of Mexico (Jefferson and Schiro, 1997).

Stranding records from the Southeast U.S. stranding network, the Smithsonian Institution, and the literature (Mead 1977, Schmidly 1981, Jefferson 1995) include 22 Bryde's whale strandings in the Gulf of Mexico from 1954 to 2012, although three of those stranding have uncertain species identification. Most strandings were recorded east of the Mississippi River through west central Florida, but two were recorded west of Louisiana. There are no documented Bryde's whale strandings in Texas, although strandings of fin (*B. physalus*), sei (*B. borealis*), and minke (*B. acutorostrata*) whales have been documented.

We began conducting oceanic (ship) and continental shelf (ship and aerial) surveys for cetaceans in 1991 that continue today. The location of shipboard and aerial survey effort in the Gulf of Mexico and Atlantic Ocean was plotted by Roberts *et al.* (2016). Details of Bryde's whale sightings from these surveys are summarized in Waring *et al.* (2015). During surveys in 1991, Bryde's whales were sighted in the northeastern Gulf of Mexico along the continental shelf break, in an area known as the De Soto Canyon. In subsequent surveys, Bryde's whales or whales identified as Bryde's/sei whales (*i.e.,* where it was not possible to distinguish between a Bryde's whale or a sei whale) were sighted in this same region of the northeastern Gulf of Mexico. When observers were able to clearly see the dorsal surface of the rostrum with three ridges, a diagnostic characteristic of Bryde's whales, it was recorded as a Bryde's whale. When the three ridges could not be seen, observers recorded the whale as Bryde's/sei whales or unidentified baleen whale (Maze-Foley and Mullin 2006). Sightings of Bryde's whales in the Gulf of Mexico have been consistently located in the De Soto Canyon area, along the continental shelf break between 100 m and 300 m depth. Bryde's whales have been sighted in all seasons within the De Soto Canyon area (Mullin and Hoggard 2000, Maze-Foley and Mullin 2006, Mullin 2007, DWH MMIQT 2015). Consequently, LaBrecque *et al.* (2015) designated this area, home to the small resident population of Bryde's whale in the northeastern Gulf of Mexico, as a Biologically Important Area (BIA). BIAs are reproductive areas, feeding areas, migratory corridors, or areas in which small and resident populations are concentrated. Researchers identify BIAs to provide information to help inform regulatory and management decisions, in order to minimize impacts from anthropogenic activities on marine mammals (LaBrecque *et al.,* 2015). The area that LeBrecque *et al.* (2015) identified as the BIA covers waters between 100 m and 300 m deep from approximately Pensacola, Fla. to just south of Tampa, Fla. However, given that there have also been sightings at 302 and 309 m depth in this region and west of Pensacola, Florida, the core area inhabited by the species is probably better described out to the 400 m depth contour and to Mobile Bay, Alabama, to provide some buffer around the deeper water sightings and to include all sighting locations in the northeastern Gulf of Mexico, respectively (Rosel *et al.,* 2016). We consider this larger area, extending to the 400 m depth contour, an accurate description of the GOMx Bryde's whale BIA, based on the recent sightings and tag data, and when we refer to the GOMx Bryde's whale BIA, we are referring to this larger area.

Although all the confirmed Bryde's whale sightings in the Gulf of Mexico have been within the BIA, questions remain about their current distribution in U.S. waters. NMFS surveys from 1991 to 2015 recorded three baleen whales sighted outside the BIA—a fin whale identified in 1992 off Texas and two sightings of Bryde's/sei whale in 1992 and 1994 along the shelf break in the western Gulf of Mexico. In addition, five records of ''baleen whales'' have been recorded from 2010 to 2014 west of the BIA, at the longitude of western Louisiana in depths similar to those in the BIA (Bureau of Safety and Environmental Enforcement, unpublished). The two sightings southwest of Louisiana included photographs showing they were clearly baleen whales. However, the information collected was not sufficient to identify the whales at the species level. In 2015, a citizen sighted and photographed what most experts believe was a Bryde's whale in the western Gulf of Mexico south of the Louisiana-Texas border (Rosel *et al.,* 2016). Given these observations, the SRT determined that although it is possible that a small number of baleen whales occur in U.S. waters outside the BIA, these observations in the north-central and western Gulf of Mexico were difficult to interpret (Rosel *et al.,* 2016).

Few systematic surveys have been conducted in the southern Gulf of Mexico (*i.e.,* Mexico and Cuba). Six marine mammal surveys were conducted from 1997 to 1999 in the southern Gulf of Mexico and Yucatán Channel. These surveys focused specifically on the extreme southern Bay of Campeche, an area where Reeves *et al.* (2011) reported numerous sightings of baleen whales from the whaling logbooks. A more recent survey reported a single baleen whale in an area of nearly 4,000 square kilometers (km^2) (Ortega-Ortiz 2002, LaBrecque *et al.* 2015). This whale was identified as a fin whale; however, subsequent discussion between the author and the

SRT suggested it should have been recorded as an unidentified baleen whale (Rosel *et al.,* 2016). As summarized in the status review (Rosel *et al.,* 2016), a compilation of all available records of marine mammal sightings, strandings, and captures in the southern Gulf of Mexico identified no Bryde's whales (Ortega-Ortiz 2002).

We agree with the SRT's findings that what is now recognized as the GOMx Bryde's whale has been consistently located over the past 25 years along a very narrow depth corridor in the northeastern Gulf of Mexico, recognized as the GOMx Bryde's whale BIA. In fact, there has only been one likely Bryde's whale sighting outside the BIA, the baleen whale that a citizen sighted and photographed in 2015 and that some experts believe to be a Bryde's whale. Despite a large amount of dedicated marine mammal survey effort that included both continental shelf and oceanic waters of the Atlantic Ocean off the southeastern United States and the northern Gulf of Mexico, there have been no sightings outside the BIA that have been identified as Bryde's whales. Historical whaling records indicate that the historical distribution of the GOMx Bryde's whale in the Gulf of Mexico was much broader than it is currently and included the north-central and southern Gulf of Mexico. We agree with the SRT that the BIA, located in the De Soto Canyon area of the northeastern Gulf of Mexico, encompasses the current areal distribution of the GOMx Bryde's whale.

Abundance Estimates

All of the abundance estimates for Bryde's whale in the northern Gulf of Mexico are based on aerial- or ship-based line-transect surveys (Buckland *et al.* 2005). Various surveys conducted from 1991 to 2012 are discussed in the status review (Rosel *et al.* 2016). As previously stated, all confirmed GOMx Bryde's whale sightings occurred in the BIA during surveys that uniformly sampled the entire northern Gulf of Mexico. The abundance estimate used for management under the MMPA of the ''Northern Gulf of Mexico Bryde's Whale Stock'' is 33 whales (CV = 1.07; Waring *et al.* 2013). Recently, Duke University researchers estimated abundance to be 44 individuals (CV = 0.27) based on the averages of 23 years of survey data (Roberts *et al.* 2015a, Roberts *et al.* 2016). No analysis has been conducted to evaluate abundance trends for the GOMx Bryde's whale. Given the range in previous abundance estimates, the SRT agreed by consensus that, given the best available scientific information and allowing for the uncertainty of Bryde's whale occurrence in non-U.S. waters of the Gulf of Mexico, there are fewer than 250 mature individuals, and that it is more than likely that the population contains fewer than 100 individuals, with 50 or fewer being mature. For the reasons stated above, we concluded that there are likely fewer than 100 individuals GOMx Bryde's whales, with fewer than 50 being mature.

Behavior

Little information exists on the behavior of the GOMx Bryde's whale. Maze-Foley and Mullin (2006) found GOMx Bryde's whales to have a mean group size of 2 (range 1–5, n = 14), similar to group sizes of the Eden's and Bryde's whales (Wade and Gerrodette 1993). The GOMx Bryde's whale is known to be periodically ''curious'' around ships and has been documented approaching them in the Gulf of Mexico (Rosel *et al.* 2016), as observed in Bryde's whales worldwide (Leatherwood *et al.* 1976, Cummings 1985). In September 2015, a female GOMx Bryde's whale was tagged with an acoustic and kinematic data-logging tag in the De Soto Canyon (Rosel *et al.,* 2016). Over the nearly 3-day tagging period, the whale spent 47 percent of its time within 15 m of the surface during the day and 88 percent of its time within 15 m of the surface during the night (Soldevilla *et al.,* 2017).

Foraging Ecology

Little information is available on foraging ecology of GOMx Bryde's whales. Based on behavior observed during assessment surveys, these whales do not appear to forage at or near the surface (Soldevilla *et al.,* 2017). In general, Bryde's whales are thought to feed primarily in the water column on schooling fish such as anchovy, sardine, mackerel and herring, and small crustaceans (Kato 2002). These prey occur throughout the Gulf of Mexico and the BIA (Grace *et al.* 2010). Tracking data from the single whale with an acoustic tag (described above) indicated diurnal diving to depths of up to 271 m, with foraging lunges apparent at the deepest depths. That whale was likely foraging at or just above the sea floor (Soldevilla *et al.,* 2017) where diel-vertical-migrating schooling fish form tight aggregations.

Reproduction and Growth

Little information exists on reproduction and growth of GOMx Bryde's whale; however, similar to Eden's whales and Bryde's whales elsewhere in the world, the GOMx Bryde's whale is considered to have k-selected life history parameters (large body size, long life expectancy, slow growth rate, late maturity, with few offspring). Taylor *et al.* (2007) estimated that Bryde's whales worldwide may reproduce every 2 to 3 years and reach sexual maturity at age 9. Given the basic biology of baleen whales, it is likely that under normal conditions, the female GOMx Bryde's whales produce a calf every 2 to 3 years. The largest known GOMx Bryde's whale was a lactating female 12.6 m in length (Rosel and Wilcox 2014). Currently, skewed sex ratio does not appear to be an issue for this population, as recent biopsies have shown equal number of males and females (Rosel and Wilcox 2014; Rosel *et al.* 2016). No GOMx Bryde's whale calves have been reported during surveys. However, two stranded calves have been recorded in the Gulf of Mexico: A 4.7 m calf stranded in the Florida Panhandle in 2006 (SEUS Historical Stranding Database) and a 6.9 m juvenile stranded north of Tampa, Florida, in 1988 (Edds *et al.* 1993).

Acoustics

Baleen whale species produce a variety of highly stereotyped, low-frequency tonal and broadband calls for communication purposes (Richardson *et al.* 1995). These calls are thought to function in a reproductive or territorial context, provide individual identification, and communicate the presence of danger or food (Richardson *et al.* 1995). Bryde's whales worldwide produce a variety of calls that are distinctive among geographic regions, and these calls may be useful for delineating subspecies or populations (Oleson *et al.* 2003, Širović *et al.* 2014). In the Gulf of Mexico, Širović *et al.* (2014) reported Bryde's whale call types composed of downsweeps and downsweep sequences and localized these calls (*i.e.,* researchers recorded the calls on multiple instruments that allowed them triangulate the location of the calls and then confirmed the location with visual sightings). Rice *et al.* (2014) detected these sequences, as well as two stereotyped tonal call types that originated from Bryde's whales in the Gulf of Mexico. One call type has been definitively identified to free-ranging GOMx Bryde's whales (Širović *et al.* 2014), four additional call types have been proposed as likely candidates (Rice *et al.* 2014a, Širović *et al.* 2014), and two call types have been described from a captive juvenile during rehabilitation (Edds *et al.* 1993). Based on these data, the calls by the GOMx Bryde's whale are consistent with, but different from those previously reported for Bryde's whales worldwide (Rice *et al.* 2014). These unique acoustic

signatures add some support to the genetic results identifying the GOMx Bryde's whale as an evolutionary distinct unit (Rosel and Wilcox 2014).

Threats Evaluation

The SRT identified 27 possible threats, organized and described them according to the five ESA factors listed in section 4(a)(1), and then evaluated the severity of each threat with a level of certainty (see Appendix 3; Rosel *et al.* 2016). Because direct evidence from studies on GOMx Bryde's whales was lacking, the SRT agreed that published scientific evidence from other similar marine mammals (*e.g.,* other Bryde's whale subspecies, other baleen whales) was relevant and necessary to estimate impacts to GOMx Bryde's whale and extinction risk.

To promote consistency when ranking each threat, the SRT used definitions for 'severity of threat' and 'level of certainty' similar to other status reviews, including the Hawaiian insular false killer whales (Oleson *et al.* 2010) and the northeastern Pacific population of white shark (Dewar *et al.* 2013). The SRT categorically defined specific rankings for both severity and certainty for each specific threat (identified below) as ''low,'' ''moderate,'' or ''high.'' The categorical definitions for the severity of each threat were identified by the SRT as 1 = ''low,'' meaning that the threat is likely to only slightly impair the population; 2 = ''moderate,'' meaning that the threat is likely to moderately degrade the population; or 3 = ''high,'' meaning that the threat is likely to eliminate or seriously degrade the population. The SRT also scored the certainty of the threat severity based on the following categorical definitions: 1 = ''low,'' meaning little published and/or unpublished data exist to support the conclusion that the threat did affect, is affecting, or is likely to affect the GOMx Bryde's whale with the severity ascribed; 2 = ''moderate,'' meaning some published and/or unpublished data exist to support the conclusion that the threat did affect, is affecting, or is likely to affect the population with the severity ascribed; and 3 = ''high,'' meaning there are definitive published and/or unpublished data to support the conclusion that this threat did affect, is affecting, or is likely to affect the GOMx Bryde's whale with the severity ascribed. Then, to determine the overall impact of an ESA factor, the SRT looked at the collective impact of threats considered for each ESA factor to provide an ''overall threat ranking'' for each ESA factor, defined as follows: 1 = ''low,'' meaning the ESA factor included ''a low number'' of threats likely to contribute to the decline of the GOMx Bryde's whale; 2 = ''moderate,'' meaning the ESA factor included an intermediate number of threats likely to contribute to the decline of the GOMx Bryde's whale, or contained some individual threats identified as moderately likely to contribute to the decline; and 3 = ''high,'' meaning the ESA factor included a high number of threats that are moderately or very likely to contribute to the decline of the GOMx Bryde's whale, or contains some individual threats identified as very likely to contribute to the decline of the GOMx Bryde's whale.

The SRT then calculated the numerical mean of the team members' scores for each threat or category of threats. However, we do not believe that relying on the numerical mean of the SRT's scores is appropriate, because the specific rankings for the severity, certainty, and overall threat were categorically defined by the SRT and not numerically defined. Therefore, we assessed the majority vote of the team members' scores (*i.e.,* 1, 2, or 3, as described above) and assigned each threat a specific ranking defined by the SRT's categorical definitions (*i.e.,* low, moderate, or high) based on the majority vote of the SRT. When there was no clear majority (*i.e.,* no rank received four votes), the categorical ranking we assigned was a combination of the two ranks receiving three votes each (*e.g.,* three votes for high and three votes for moderate we characterized as ''moderate-high'').

Each of the 27 possible threats identified by the SRT is summarized below, by ESA factor, with severity and certainty rankings based on the SRT's categorical scoring, as described above. We also summarize the overall threat ranking for each ESA factor, based on the SRT's scores, and provide NMFS' determination with regard to each factor. A detailed table of the SRT's threats and rankings can be found in Appendix 3 of the status review (Rosel *et al.,* 2016).

Factor A. The Present or Threatened Destruction, Modification, or Curtailment of Habitat or Range

The SRT considered the following threats to the GOMx Bryde's whale under ESA factor A: Energy exploration, development, and production, oil spills and spill response, harmful algal blooms, persistent organic pollutants, and heavy metals. Based on the SRT's numerical threat rankings, the overall threat ranking assigned to factor A was ''high.''

Energy Exploration, Development, and Production

The SRT found that energy exploration, development, and production was a significant threat which has contributed to the curtailment of the species' range. The SRT assigned the threat of energy exploration (seismic surveys) and development (drilling rigs, platforms, cables, pipelines) a score of ''high'' severity threat with ''moderate'' certainty. Note: Other aspects or elements of energy exploration, development, and production can act directly on the whales (*e.g.,* noise, vessel collision, marine debris). Under factor A, the SRT evaluated how noise and the industrialization associated with energy exploration, development, and production contributed to the species' range contraction. Under factor E, other natural or human factors affecting a species' continued existence, the SRT also evaluated how the potential for noise, vessel collision, and marine debris associated with oil and gas activities could affect the species by injuring them, causing mortality, or interfering with their behavior (masking vocalizations, causing stress, reducing reproductive and foraging success, or interfering with the ability to interpret environmental cues).

The Gulf of Mexico is a major oil and gas producing area and has proven to be a steady and reliable source of crude oil and natural gas for more than 50 years. Approximately 2,300 platforms operate in Federal outer continental shelf (OCS) waters (Rosel *et al.* 2016), and in 2001 approximately 27,569 miles (44,368 km) of pipeline lay on the Gulf of Mexico seafloor (Cranswick 2001). For planning and administrative purposes, the BOEM has divided the Gulf of Mexico into three planning areas: Western, Central, and Eastern. The majority of active lease sales are located in the Western and Central Planning Areas. Habitat in the north-central and southern Gulf of Mexico, which includes the GOMx Bryde's whale's historical range, has been significantly modified with the presence of thousands of oil and gas platforms. The noise associated with energy exploration (seismic surveys), development, and production also has modified the habitat by increasing ambient noise levels. In addition, these activities have increased aircraft and marine vessel traffic to service these operations. This modification likely contributed to the curtailment of the species' range; the species now is almost exclusively found within a limited portion of the EPA.

The BIA, which is encompassed by the EPA, currently has no production activity, with most of the EPA falling under a moratorium on new lease sales. However, this moratorium expires in 2022. In addition to expressing concern regarding the current curtailment of the GOMx Bryde's whale range due to energy exploration, development, and production, and associated noise, in the north-central and southern Gulf of Mexico, the SRT raised significant concern about the moratorium expiring and the potential expansion of impacts that opening these waters to development would have on the Bryde's whale BIA in the future. If oil and gas activities, the associated industrialization, and noise increase within the BIA, then that habitat will likely become unsuitable. The species may not be able to relocate outside the BIA, and their current habitat in the BIA may be further curtailed.

Oil Spills and Spill Responses

The SRT found that oil spills and spill response is a significant threat which has modified the species' habitat. The SRT's scored the threat of exposure to oil spills and spill responses is a ''high'' severity threat with a ''high'' level of certainty to the GOMx Bryde's whale. The 2010 DWH oil spill was the largest spill affecting U.S. waters in U.S. history, spilling nearly 134 million gallons (507 million liters) of oil into the Gulf of Mexico which impacted 48 percent of the Bryde's whale's BIA. In addition, 46 smaller-scale spills associated with oil and gas related activities (*e.g.,* platforms, rigs, vessels, pipelines) occurred in the Gulf of Mexico between 2011 and 2013 (OCS EIS EA BOEM 2015–001).

Exposure to oil spills may cause marine mammals acute or chronic impacts with lethal or sub-lethal effects depending on the size and duration of the spill. For large baleen whales, like the GOMx Bryde's whale, oil can foul the baleen they use to filter-feed, decreasing their ability to eat, and resulting in the ingestion of oil (Geraci *et al.* 1989). Impacts from exposure may also include: Reproductive failure, lung and respiratory impairments, decreased body condition and overall health, and increased susceptibility to other diseases (Harvey and Dahlheim 1994). Oil and other chemicals on the body of marine mammals may result in irritation, burns to mucous membranes of eyes and mouth, and increased susceptibility to infection (DWH Trustees 2016). Dispersants used during oil spill responses may also be toxic to marine mammals (Wise *et al.* 2014a). After oil spills cease, marine mammals may experience continued effects through persistent exposure to oil and dispersants in the environment, reduction or contamination of prey, direct ingestion of contaminated prey, or displacement from preferred habitat (Schwacke *et al.* 2014, BOEM and Gulf of Mexico OCS Region 2015, DWH Trustees 2016). The DWH oil spill is an example of the significant impacts a spill can have on the status of the GOMx Bryde's whale. Although the DWH platform was not located within the BIA, the oil footprint included 48 percent of GOMx Bryde's whale habitat within the BIA; an estimated 17 percent of the species was killed, 22 percent of reproductive females experienced reproductive failure, and 18 percent of the population likely suffered adverse health effects due to the spill (DWH Trustees 2016; DWH MMIQT 2015).

Harmful Algal Blooms

Harmful Algal Blooms (HAB) occur throughout the Gulf of Mexico, with most blooms occurring off the coast of Florida. One of the most common HAB species, *Karenia brevis* (also known as the red tide organism), is common along coastal zones, but can also develop offshore. *Karenia brevis* produces neurotoxins that affect the nervous system by blocking the entry of sodium ions to nerve and muscle cells (Geraci *et al.* 1989). The neurotoxins can accumulate in primary consumers through direct exposure to toxins in the water, ingestion, or inhalation. Once neurotoxins have entered the food web, bioaccumulation can occur in predators higher up on the food web, like GOMx Bryde's whales.

HABs are also known to negatively affect marine mammal populations through acute and chronic detrimental health effects, including reproductive failure (reviewed in Fire *et al.* 2009). Although no documented cases of GOMx Bryde's whale deaths resulting from HABs exist, cases involving humpback whales (*Megaptera novaeangliae;* Geraci *et al.* 1989) and potentially fin (*B. physalus*) and minke whales (*B. acutorostrata*) (Gulland and Hall 2007) have been reported. Impacts from HABs have also been associated with large-scale mortality events for common bottlenose dolphins and manatees in the offshore and coastal waters of the northeastern Gulf of Mexico. Given the small population size of the GOMx Bryde's whale, the SRT noted that a HAB-induced mortality of a single breeding female would significantly degrade the status of the population. Largely due to human activities, HABs are increasing in frequency, duration, and intensity throughout the world (Van Dolah 2000). Based on the SRT's scoring, the threat of HABs is a ''moderate'' severity threat with a ''low'' level certainty.

Persistent Organic Pollutants and Heavy Metals

Concentrations of persistent organic pollutants (POP) are typically lower in baleen whales compared to toothed whales due to differences in feeding levels in the trophic system (Waugh *et al.* 2014, Wise *et al.* 2014b). In general, thresholds for adverse impacts to baleen whales resulting from POPs are unknown (Steiger and Calambokidis 2000).

Little is known about the effects of heavy metals on offshore marine mammal populations. Heavy metals can accumulate in whale tissue and cause toxicity (Sanpera *et al.* 1996, Hernández *et al.* 2000, Wise *et al.* 2009). Similarly, heavy metals accumulate in prey at the trophic levels where marine mammals feed. However, concentrations of heavy metals in tissue vary based on physiological and ecological factors such as geographic location, diet, age, sex, tissue, and metabolic rate (Das *et al.* 2003). Although heavy metals are pervasive in the marine environment and documented in various marine mammal species, their impact on Bryde's whale health and survivorship is unknown. Based on the SRT's scoring, the threat of POPs and heavy metals are of ''low'' severity, with a ''moderate'' level of certainty for POPs and a ''low'' level of certainty for heavy metals.

Summary of Factor A

We interpret the overall risk assigned by the SRT for ESA factor A as ''high,'' indicating that there are a high number of threats that are moderately or very likely to contribute to the decline of the GOMx Bryde's whale, or some individual threats identified as very likely to contribute to the decline of the population. Specifically, the SRT found that energy exploration, development, and production, and oil spills and spill response were significant threats that have contributed to modification of the species habitat and likely curtailment in its range. The SRT found that HABs, POPs, and heavy metals are not currently significant factors in habitat the destruction, curtailment, or modification. Based on the comprehensive status review and after considering the SRT's threats assessment, we conclude that energy exploration, development, and production have contributed to a curtailment in the species' range by physically modifying the habitat and

increasing the industrialization, vessel traffic, and noise, and oil spills and spill response have modified their current habitat. Therefore, we find that the present curtailment of its range and modification of its habitat is contributing to the GOMx Bryde's whale's risk of extinction.

Factor B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

The SRT considered two threats under ESA factor B; historical whaling and scientific biopsy sampling. The overall rank assigned for Factor B, based on the SRT's scoring, is ''low.''

Historical Whaling

The SRT scored the impacts from historical whaling as a ''low'' severity threat with a ''moderate-high'' degree of certainty. Whaling that occurred in the 18th and 19th centuries in the Gulf of Mexico may have removed Bryde's whales. The primary target species was the sperm whale, but other species were also taken. Reeves *et al.* (2011) indicated that, during the 18th and 19th centuries, whalers hunting ''finback whales'' in the Gulf of Mexico were most likely taking Bryde's whales, based on the known distribution and recent records of baleen whale species in the Gulf of Mexico. However, the total number of whales killed during that time cannot be quantified. The SRT determined that it is unlikely the current low abundance of GOMx Bryde's whales is related to historical whaling, as the population would have recovered to some extent, given the estimated population recovery rate (Wade 1998) and considering that whaling stopped over a century ago (Rosel *et al.* 2016). Whaling is not a current threat in the Gulf of Mexico and is regulated by the IWC (see factor D). The SRT ranked the impacts from historical whaling as ''low'' severity threat with a ''moderate-high'' degree of certainty.

Scientific Biopsy Sampling

Scientific research that may have the potential to disturb and/or injure marine mammals such as the Bryde's whale requires a letter of authorization under the MMPA. As of March 7, 2016 (the reference date used by the SRT), there was one active scientific permit authorizing non-lethal take of GOMx Bryde's whale and four scientific research permits authorizing non-lethal take of Bryde's whales worldwide, including the Gulf of Mexico. The permits authorize activities such as vessel or aerial surveys, photo-identification, behavioral observation, collection of sloughed skin, and passive acoustics. Four of the permits also authorize activities such as dart biopsies and/or tagging. Biopsy sampling, where a small piece of tissue is removed for analysis, is a common research activity used to support stock differentiation, evaluate genetic variation, and investigate health, reproduction and pollutant loads (Brown *et al.* 1994). Research on wound healing from biopsies has indicated little long-term impact from biopsy sampling (Brown *et al.* 1994, Best *et al.* 2005). In addition, research activities are closely monitored and evaluated in the United States in an attempt to minimize impacts (see factor D). The SRT scored the threat of scientific biopsy sampling as a ''low'' severity threat with a ''high'' level of certainty.

Summary of Factor B

The overall threat rank assigned for factor B by the SRT was ''low,'' indicating there are a low number of threats that are likely to contribute to the decline of the GOMx Bryde's whale. We conclude, based on our review of the information presented in the status review and the SRT's threats assessment that the threats posed by whaling and scientific biopsy sampling are not contributing to the risk of extinction for the GOMx Bryde's whale.

Factor C. Disease, Parasites, and Predation

The SRT considered the following threats under ESA factor C: Disease and parasites, and predation. The overall rank assigned for factor C based on the SRT's scoring was ''low.''

Disease and Parasites

There is little information on disease or parasitism of any Bryde's whale in the literature. Reviews of conservation issues for baleen whales have tended to see disease as a relatively inconsequential threat (Claphan *et al.* 1999). The SRT noted that cetacean morbillivirus, which causes epizootics resulting in serious population declines in dolphin species (Van Bressem *et al.* 2014), has also been detected in fin whales in the eastern Atlantic Ocean (Jauniaux *et al.* 2000) and in fin whales and minke whales in the Mediterranean Sea (Mazzariol *et al.* 2012; Di Guardo *et al.* 1995). In the Gulf of Mexico, the morbillivirus outbreaks that occurred in 1990, 1992, and 1994 caused marine mammal mortalities, with most of the mortalities being common bottlenose dolphins (Rosel *et al.* 2016). These outbreaks were thought to have originated in the Atlantic Ocean (Litz *et al.* 2014). An unusual mortality event involving hundreds of common bottlenose dolphins in the Atlantic Ocean from 2013–2015 was caused by morbillivirus (Rosel *et al.* 2016). During this outbreak, a few individuals of multiple species of baleen whales in the Atlantic tested positive for the disease, indicating that it could potentially spread to Bryde's whales (Rosel *et al.* 2016). However, there have been no confirmed morbillivirus-related deaths of Bryde's whales in the Gulf of Mexico (Rosel *et al.* 2016).

The SRT identified only two cases of other diseases and parasites occurring in Bryde's whale, one case in Australia (Patterson 1984) and one case in Brazil (Pinto *et al.* 2004). Based on the SRT's scoring, the threat of disease and parasites is a ''low'' severity threat with ''low'' certainty.

Predation

Killer whales (*Orcinus orca*) are the only known predator of Bryde's whales based on observations outside of the Gulf of Mexico (Silber and Newcomer 1990, Alava *et al.* 2013). There are no published records of killer whale predation of GOMx Bryde's whale and observations of killer whales in the Gulf of Mexico have been outside of the GOMx Bryde's whales' BIA (Rosel *et al.* 2016). However, killer whales have been observed harassing sperm whales and attacking pantropical spotted dolphins (*Stenella attenuata*) and a dwarf/pygmy sperm whale (*Kogia* sp.) in the Gulf of Mexico (Pitman *et al.* 2001, Whitt *et al.* 2015, NMFS SEFSC, unpublished). Although large sharks (*e.g.,* white sharks *Carcharodon carcharias,* and tiger sharks *Galaecerdo cuvier*) are known to scavenge on carcasses of Bryde's whales elsewhere in the world (Dudley *et al.* 2000), the SRT found no published reports of large shark predation on healthy, living individuals (Rosel *et al.* 2016). Based on this information, the SRT's scoring of this threat was ''low'' severity with ''low'' certainty.

Summary of Factor C

The overall threat rank assigned for factor C, based on the SRT's scoring, was ''low,'' indicating that this category includes a low number of threats that are likely to contribute to the decline of the GOMx Bryde's whale. Based on the limited observance of disease, parasites, or predation, we concur that these are low potential threats to the GOMx Bryde's whale and are not currently contributing to their extinction risk.

Factor D. Inadequacy of Existing Regulatory Mechanisms

The relevance of existing regulatory mechanisms to extinction risk for an individual species depends on the

vulnerability of that species to each of the threats identified under the other factors of ESA section 4, and the extent to which regulatory mechanisms control the threats that are contributing to the species' extinction risk. If a species is not vulnerable to a particular threat, it is not necessary to evaluate the adequacy of existing regulatory mechanisms for addressing that threat. Conversely, if a species is vulnerable to a particular threat, we do evaluate the adequacy of existing measures, if any, in controlling or mitigating that threat. In the following paragraphs, we summarize existing regulatory mechanisms relevant to threats to GOMx Bryde's whale generally, and assess their adequacy for controlling those threats.

Marine Mammal Protection Act

Bryde's whales are protected by the MMPA (16 U.S.C. 1361 *et seq.*). The MMPA sets forth a national policy to prevent marine mammal species or population stocks from diminishing to the point where they are no longer a significant functioning element of their ecosystem. The Secretaries of Commerce and the Interior have primary responsibility for implementing the MMPA. The Secretary of Commerce has jurisdiction over the orders Cetacean and Pinnipedia with the exception of walruses, and the Secretary of Interior has jurisdiction over all other marine mammals. Both agencies are responsible for promulgating regulations, issuing permits, conducting scientific research, and enforcing regulations, as necessary, to carry out the purposes of the MMPA. The MMPA includes a general moratorium on the ''taking'' and importing of marine mammals (16 U.S.C. 1371), which is subject to a number of exceptions. Some of these exceptions include ''take'' for scientific purposes, public display, and unintentional incidental take coincident with conducting lawful activities. Any U.S. citizen, agency, or company who engages in a specified activity other than commercial fishing (which is specifically and separately addressed under the MMPA) within a specified geographic region may submit an application to the Secretary to authorize the incidental, but not intentional, taking of small numbers of marine mammals within that region for a period of not more than five consecutive years (16 U.S.C. 1371(a)(5)(A)(i)). U.S. citizens can also apply under the MMPA for authorization to incidentally take marine mammals by harassment for up to one year (16 U.S.C. 1371(a)(5)(D)). For both types of authorizations, it must be determined that the take is of small numbers, has no more than a negligible impact on those marine mammal species or stocks, and does not have an un-mitigatable adverse impact on the availability of the species or stock for subsistence use. The MMPA also provides mechanisms for directed ''take'' of marine mammals for the purposes of scientific research (16 U.S.C. 1374). Non-lethal research takes of Bryde's whale for scientific research (*e.g.,* biopsy sampling) are currently authorized on a global scale and typically do not specify a geographic area. Hence the potential for multiple biopsies of an individual Bryde's whale does exist. However, any risk to GOMx Bryde's whale from multiple sampling is low, and we do not expect any mortality to result. In these situations, we take a proactive role and coordinate with researchers to minimize any potential negative effects to a small population.

The Northern Gulf of Mexico stock of Bryde's whales is considered a ''strategic'' stock under the MMPA, because the level of direct human-caused mortality and serious injury exceeds the potential biological removal (PBR) level determined for the species, which could have management implications (U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments 2015; 16 U.S.C. 1362(19)). The MMPA also provides additional protections to stocks designated as ''depleted'' and requires that conservation plans be developed to conserve and restore the stock to its optimum sustainable population (OSP) (16 U.S.C. 1383b). In order for a stock to be considered ''depleted'' the Secretary, after consultation with the Marine Mammal Commission and the Committee of Scientific Advisors on Marine Mammals, must determine it is below its OSP (16 U.S.C. 1362(1)(A)), or it must be listed under the ESA (16 U.S.C. 1362(1)(C)). In 2015, the Marine Mammal Stock Assessment Report determined that the status of the Northern Gulf of Mexico Population of Bryde's whales relative to OSP was unknown, as there was insufficient information to determine population trends (U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments 2015). Because of this lack of information on OSP, the GOMx Bryde's whale is not designated as a ''depleted'' stock and there is no conservation plan. The 2016 Marine Mammal Stock Assessment Report (82 FR 29039, June 27, 2017) did not update the report on the Gulf of Mexico population of Bryde's whales (U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments 2016). Based on the above, we conclude that, outside of the general protections provided to marine mammals by the MMPA, there are no specific regulatory mechanisms specific to the GOMx Bryde's whale under the MMPA.

Magnuson-Stevens Fishery Conservation and Management Act (MSA)

The Magnuson-Stevens Fishery Conservation and Management Act, 16 U.S.C. 1801 *et seq.,* established eight regional fishery management councils (Councils) that develop and implement management measures for fisheries requiring conservation and management through fishery management plans (FMPs). These FMPs must comply with 10 national standards for fishery conservation and management in addition to other principles to promote sustainable use of managed fisheries. Fishery management plans are submitted to the Secretary of Commerce and, if approved, are implemented via federal regulation. The Gulf of Mexico Fishery Management Council manages a number of species in the Gulf of Mexico, and the regulations implementing the FMPs have the potential to benefit the GOMx Bryde's whale. In addition, under the MSA, NMFS is responsible for managing high migratory species, including tunas, sharks, swordfish, and billfish.

As discussed in the Fishing Gear Entanglement section, the bottom longline component of the Gulf of Mexico reef fish fishery, the Gulf of Mexico shark bottom longline fishery, and Atlantic Ocean, Caribbean, Gulf of Mexico commercial pelagic longline fishery for large pelagic species are active within BIA. These fisheries use gear types (*i.e.,* bottom longline and pelagic longline) that pose entanglement risk to GOMx Bryde's whales. In 2000, the Highly Migratory Species Atlantic Tunas, Swordfish, and Sharks Fishery Management Plan was amended to establish the De Soto Canyon Marine Protected Area. The De Soto Canyon Marine Protected Area is closed to pelagic longline fishing. It includes approximately ⅔ of the GOMx Bryde's whale BIA. This closure reduces the likelihood of a GOMx Bryde's whale becoming entangled in longline gear in the BIA. However, ⅓ of the BIA is still open to pelagic longlining. In addition, while the pelagic longlining is prohibited in the De Soto Marine Protected Area, there are no restrictions or areas within the BIA closed to bottom longline fishing. We believe that the De Soto Marine Protected Area provides some protection to the GOMx Bryde's whale. However, there are no additional

regulations or protections in place that address, mitigate, or remove the threat posed by bottom longline fishing or pelagic longline fishing. Thus, we conclude that fishing gear entanglement remains a threat, despite the protections in place.

Outer Continental Shelf Lands Act and the Oil Pollution Act

The SRT also identified existing regulatory mechanisms relating to oil and gas development and oil spills and spill responses (see factors A and E for a discussion of those threats). The Outer Continental Shelf Lands Act (OCSLA) (43 U.S.C. 1331 *et seq.*) establishes Federal jurisdiction over submerged lands on the OCS seaward of coastal state boundaries in order to explore and develop oil and gas resources. Implementation, regulation, and granting of leases for exploration, development, and production on the OCS are delegated to the BOEM, and BOEM is responsible for managing development of the nation's offshore resources. The functions of BOEM include leasing, exploration, development, and production, plan administration, environmental studies, National Environmental Policy Act (NEPA) analysis, resource evaluation, economic analysis, and the renewable energy program. BSEE is responsible for enforcing safety and environmental regulations. OCSLA mandates that orderly development of OCS energy resources be balanced with protection of human, marine and coastal environments. It is the stated objective of the OCSLA that operations in the OCS should be conducted in a safe manner to prevent or minimize the likelihood of blowouts, loss of well control, fires, spillages or other occurrences which may cause damage to the environment or to property, or endanger life or health (43 U.S.C. 1332(6)). OCSLA further requires the study of the environmental impacts of oil and gas leases on the continental shelf, including an assessment of effects on marine biota (43 U.S.C. 1346). OCSLA, as amended, requires the Secretary of the Interior, through BOEM and BSEE, to manage the exploration, development, and production of OCS oil, gas, and marine minerals (*e.g.,* sand and gravel) and the siting of renewable energy facilities. The Energy Policy Act of 2005, Public Law (Pub. L.) 109–58, added Section 8(p)(1)(C) to the OCSLA, which grants the Secretary of Interior the authority to issue leases, easements, or rights-of-way on the OCS for the purpose of developing energy from sources other than oil and gas (*i.e.,* renewable energy development) (43 U.S.C. 1337(p)(1)(C)). This authority has been delegated to BOEM (30 CFR 585.100), which now regulates activities within Federal waters. Since 2006, there has been a moratorium on leasing new areas for oil and gas development and production in the Gulf of Mexico EPA, which includes the waters offshore of Florida, including the BIA. The moratorium is set to expire in 2022 and, if it is not renewed, the GOMx Bryde's whale within the BIA could be exposed to increased energy exploration.

The Oil Pollution Act (OPA) of 1990 (33 U.S.C. 2701–2762) is the principal statute governing oil spills in the nation's waterways. OPA was passed following the March 1989 Exxon Valdez oil spill to address a lack of adequate resources, particularly Federal funds, to respond to oil spills (National Pollution Funds Center 2016). The OPA created requirements for preventing, responding to, and funding restoration for oil pollution incidents in navigable waters, adjoining shorelines, and Federal waters. The OPA authorizes Trustees (representatives of Federal, state, and local government entities, and Tribes with jurisdiction over the natural resources in question) to determine the type and amount of restoration needed to compensate the public for the environmental impacts of the spill. These assessments are typically described in damage assessment and restoration plans. The Final Programmatic Damage Assessment and Restoration Plan (PDARP) developed for the 2010 DWH oil spill found the GOMx Bryde's whale to be the most impacted oceanic and shelf marine mammal; the oil footprint included 48 percent of the habitat within the BIA and 48 percent of the population was exposed to oil, resulting in an estimated 22 percent maximum decline in population size (DWH Trustees 2016, DWH MMIQT 2015). The DWH PDARP allocates fifty-five million dollars over the next 15 years for restoration of oceanic and shelf marine mammals, including Bryde's whales. The PDARP does not identify specific projects, but lays out a framework for planning future restoration projects, that may contribute to the restoration of GOMx Bryde's whale.

The impacts to the GOMx Bryde's whale from oil and gas development and oil spills in the Gulf of Mexico identified by the SRT (*e.g.,* contributing to the curtailment of range and modification of their habitat) indicate that existing regulatory mechanisms are not adequate to control these threats. While the current moratorium on leasing for new oil and gas development in the EPA appears to provide some protection to the GOMx Bryde's whale, the SRT found that development in the Gulf of Mexico continues to have broad impacts. Additionally, the existing moratorium on new leases in the EPA expires in 2022 and, if not renewed, energy development could occur in the GOMx Bryde's whale BIA, potentially resulting in severe impacts to this small population. We acknowledge that the restoration activities under the DWH PDARP may be beneficial to GOMx Bryde's whales, but we also conclude that oil spills and spill responses remain a serious current threat to the GOMx Bryde's whale and its habitat, as discussed above in factor A.

International Convention for the Regulation of Whaling

The IWC was set up under the International Convention for the Regulation of Whaling (ICRW), signed in 1946. The IWC established an international moratorium on commercial whaling for all large whale species in 1982, effective in 1986; this affected all member (signatory) nations (paragraph 10e, IWC 2009a). Since 1985, IWC catch limits for commercial whaling have been set at zero. However, under the IWC's regulations, commercial whaling has been permitted in both Norway and Iceland based on their objection to specific provisions. In addition, harvest of whales by Japan for scientific purposes has been permitted by the ICRW, including the Bryde's whale in the North Pacific. However, distribution of the GOMx Bryde's whale does not overlap with any permitted commercial whaling. The SRT concluded the current commercial whaling moratorium provides significant protection for the GOMx Bryde's whale, and we concur.

The Convention on International Trade in Endangered Species of Wild Fauna and Flora

CITES is aimed at protecting species at risk from unregulated international trade and regulates international trade in animals and plants by listing species in one of its three appendices. The level of monitoring and control to which an animal or plant species is subject depends on the appendix in which the species is listed. All Bryde's whales (*B. edeni*) are currently listed in Appendix I under CITES. Appendix I includes species that are threatened with extinction and may be affected by trade; trade of Appendix I species is only allowed in exceptional circumstances. Due to the IWC commercial whaling moratorium in place since 1985, commercial trade of Bryde's whale in the Gulf of Mexico has not been

permitted. However, if the moratorium should be lifted in the future, the Bryde's whale's CITES Appendix I listing would restrict trade, so that trade would not contribute to the extinction risk of the species.

International Maritime Organization

The IMO, a branch of the United Nations, is the international authority on shipping, pollution, and safety at sea and has adopted guidelines to reduce shipping noise and pollution from maritime vessels. Additionally, the IMO's Marine Environment Protection Committee occasionally identifies special areas and routing schemes for various ecological, economic, or scientific reasons. Some of these actions help benefit endangered right whales and humpback whales. However, the SRT found no protected areas or routing schemes that would protect the GOMx Bryde's whale.

Mexico Energy Sector: Opening to Private Investment

The SRT expressed concern regarding potential oil and gas development in the southern Gulf of Mexico. Mexico recently instituted reforms related to its oil and gas sector that officially opened Mexico's oil, natural gas, and energy sectors to private investment. As a result, Mexico's state-owned petroleum company, Petroleos Mexicanos (Pemex), may now partner with international companies for the purposes of exploring the southern Gulf of Mexico's deep water and shale resources. The SRT found that more than 9 companies have shallow water lease permits either pending or approved, and 2D and 3D seismic data collection has begun. In 2013, the U.S. Congress approved the U.S.–Mexico Transboundary Hydrocarbons Agreement, which aims to facilitate joint development of oil and natural gas in part of the Gulf of Mexico. This agreement, coupled with recent reforms in Mexico, could lead to development within the Gulf of Mexico of offshore Mexico oil and gas, including infrastructure for cross-border pipelines. The SRT found that recent developments indicate a high potential for oil and gas development in these waters. However, anticipating any future threats to the GOMx Bryde's whale at this point in time is overly speculative because the best available scientific and commercial information indicates that the GOMx Bryde's whale distribution does not currently include the southern Gulf of Mexico.

Summary of Factor D

The SRT unanimously agreed that the inadequacy of existing regulatory mechanisms factor is a ''high'' threat to the GOMx Bryde's whale (Rosel *et al.* 2016). Specifically, the SRT found that, given the current status and limited distribution of the Bryde's whale population in the Gulf of Mexico, it is clear that existing regulations have been inadequate to protect them. The SRT expressed particular concern regarding current oil and gas development and impacts from oil spills in the Gulf of Mexico, as well as vessel strikes due to shipping traffic. We agree that currently there are no regulatory mechanisms in the Gulf of Mexico to address ship strikes on GOMx Bryde's whales, which the SRT identified as one of the primary threats faced by the species (see factor E below). Additionally, the status review suggests that oil and gas development in the Gulf of Mexico has been a contributing factor to limiting the GOMx Bryde's whale's current range to the De Soto Canyon. In our view, the best available scientific and commercial information establishes that energy exploration, development, and production, oil spills and oil spill response, vessel collision, fishing gear entanglement, anthropogenic noise, and small population concerns, such as allee effects, demographic stochasticity, genetics, k-selected life history parameters, and stochastic and catastrophic effects are currently threatening the species and contributing to its extinction risk (factors A and E).We acknowledge that some existing protective regulations are in place, however, we find that the existing regulatory mechanisms are inadequate to control the threats that are contributing to the GOMx Bryde's whale's extinction risk, for the reasons stated above and in our response to comments.

Factor E. Other Natural or Manmade Factors Affecting Its Continued Existence

The SRT categorized threats under ESA factor E by three groups: A general category for ''other natural or human factors;'' anthropogenic noise; and small population concerns. Within the general sub-category for other natural or human factors, the SRT included: Vessel collision; military activities; fishing gear entanglements; trophic impacts due to commercial harvest of prey; climate change; plastics and marine debris; and aquaculture. Within the anthropogenic noise sub-category of factor E, the SRT included: Aircraft and vessel noise associated with oil and gas activities; drilling and production noise associated with oil and gas activities; seismic survey noise associated with oil and gas activities; noise associated with military training and exercises; noise associated with commercial fisheries and scientific acoustics; and noise associated with vessels and shipping traffic. Within the small population concerns sub-category of factor E, the SRT included: Allee effects; demographic stochasticity; genetic stochasticity; k-selected life-history parameters; and stochastic and catastrophic events. An explanation of these threats and the SRT's ranking for each of these sub-categories follows.

Other Natural or Human Factors

Vessel Collision—Vessel collisions are a significant source of mortality for a variety of coastal large whale species (Laist *et al.* 2001). The northern Gulf of Mexico is an area of heavy ship traffic, which increases the risk of vessel-whale collisions (Rosel *et al.* 2016). Several important commercial shipping lanes travel through the primary GOMx Bryde's whale habitat in the northeastern Gulf of Mexico, particularly vessel traffic from ports in Mobile, Pensacola, Panama City, and Tampa (see Figure 17 in Rosel *et al.* 2016). In 2009, a GOMx Bryde's whale was found floating dead in the Port of Tampa, Tampa Bay, Florida. The documented cause of death was blunt impact trauma due to ship strike (Waring *et al.* 2013). The necropsy report found that the whale was a lactating female, indicating that she was nursing a calf. It is likely that the calf died, as it was still dependent on the mother.

Bryde's whales are the third most commonly reported species struck by ships in the southern hemisphere (Van Waerebeek *et al.* 2007). As previously described, tracking information from a single GOMx Bryde's whale indicated a consistent diel dive pattern over 3 days, with 88 percent of nighttime hours spent within 15 m of the surface. This suggested to the SRT that, if other individuals exhibit a similar diving pattern, they would be at greater risk of ship strike, because they spend most of the time near the surface at night when visibility is minimal. Marine mammals that spend the majority of their nighttime hours near the surface and animals that spend more time at or near the surface are at greater risk than species that spend less time at the surface (Rosel *et al.* 2016). Additionally, the threat of vessel collision may increase in the future, given the expansion of the Panama Canal, which is anticipated to increase vessel traffic in the Gulf of Mexico (Institute for Water Resources 2012), and the potential expansion of oil and gas activities, and associated vessel traffic, in the EPA following the expiration of

the moratorium on lease sales. Given the location of commercial shipping lanes, the difficulty of sighting a whale at the surface at night, and the low ability of large ships to change course quickly enough to avoid a whale, the SRT's scoring indicates that ship strikes pose a ''high'' severity threat to the GOMx Bryde's whale with ''high'' certainty.

Military Activities— Significant portions of the Gulf of Mexico are used for military activities. NMFS completed a 2013 Biological Opinion assessing the impact of the Navy training exercises and coordinated via a Letter of Authorization (LOA) under the MMPA to govern unintentional takes incidental to training and testing activities (Rosel *et al.* 2016). Although Level B harassment (*i.e.,* activities that have the potential to disturb a marine mammal or marine mammal stock) is authorized pursuant to that LOA, the Navy determined that very few training or testing activities are likely to occur within the BIA (see Figures 18 and 19 in Rosel *et al.* 2016). Moreover, the Navy agreed to expand their Planning Awareness Area to encompass the Bryde's whale BIA and as a result they will avoid planning major training activities there, when feasible. In addition, Eglin Air Force Base (hereafter referred to as Eglin AFB) also conducts training exercises in the Gulf of Mexico. Eglin AFB also had an annual incidental harassment authorization for common bottlenose dolphin and Atlantic spotted dolphin, for their Maritime Weapon Systems Evaluation Program (81 FR 7307, February 11, 2016, and 82 FR 10747, February 15, 2017, which expired on February 3, 2018). However, most training activities take place in relatively shallow water (*i.e.,* 35 to 50 m depth). Eglin AFB does not anticipate that its activities would take GOMx Bryde's whales, because the GOMx Bryde's whales are rare in the areas involved (*e.g.,* in shallow waters between 35 to 50 m deep); therefore, Eglin AFB did not request a take authorization for Bryde's whales (Rosel *et al.* 2016; 81 FR 7307; 82 FR 10747). The SRT concluded that, although there are military activities in the Gulf of Mexico, including the northern Gulf of Mexico, most activities appeared to occur outside the BIA. In addition, they found that military activities are not constant, and due to the current scope of existing activities, the threat was considered less likely to have negative impacts on the population (Rosel *et al.* 2016). However, the SRT believed that this threat would need to be re-evaluated if the intensity, timing, or location of military training exercises extended closer to the BIA. Based on the SRT rankings, the threat of military activities (*i.e.,* explosive pressure waves, target training, and vessel activities) is a ''moderate'' threat with ''low'' certainty. The threat of noise from military activities is considered under the *Anthropogenic Noise* section, below.

Since the publication of the status review and the proposed rule, NMFS has issued regulations and an updated LOA to Eglin AFB for authorization to take marine mammals incidental to conducting testing and training activities in the Eglin Gulf Test and Training Range in the Gulf of Mexico over the course of five years, from February 13, 2018 through February 12, 2023 (83 FR 5545, February 8, 2018). This LOA supersedes other LOAs that were in effect and includes all of Eglin AFB's testing and training activities, including Maritime Weapon Systems Evaluation Program activities, into one action. The Air Force did not request a take authorization for Bryde's whales, and take has not been authorized. Under the LOA, to protect Bryde's whales, mission activities will be aborted/suspended for the remainder of the day if one or more sperm or baleen whales are detected during pre-mission monitoring activities as no takes of these species have been authorized. Trained observers will also be instructed to be vigilant in ensuring Bryde's whales are not in the zone of influence. In addition, monitors will be instructed to be extra vigilant in ensuring that species of concern, including the Bryde's whale, are clear of the zone of influence during testing and training activities. This is in addition to other measures to mitigate and monitor effects to protected species. NMFS consulted on the effects of the testing and training activities at the Eglin Gulf Test and Training Range in the Gulf of Mexico and concluded that the proposed training activities are not likely to adversely affect GOMx Bryde's whale (NMFS 2017). We have re-evaluated this threat in light of this new information, and have determined the military activities continue to be a moderate threat to the species.

Fishing Gear Entanglement—Marine mammals are known to become hooked, trapped, or entangled in fishing gear, leading to injury or mortality (Read 2008; Reeves *et al.* 2013). While gear interactions are documented more frequently for toothed whales, they remain a threat to small populations of baleen whales like the GOMx Bryde's whale (Reeves *et al.* 2013). The SRT evaluated the threat of fishing gear entanglement based on the spatial overlap between 12 commercial fisheries and the Bryde's whale BIA, gear type, the amount of fishing effort, and the potential for interactions given the whale's foraging behavior. The SRT concluded that five of the 12 commercial fisheries evaluated overlap or possibly overlap with the Bryde's whale BIA (*i.e.,* the Gulf of Mexico pelagic longline fishery, the bottom longline component of the Gulf of Mexico reef fish fishery, the Gulf of Mexico shark bottom longline fishery, the Gulf of Mexico shrimp trawl fishery, and the Gulf of Mexico butterfish trawl fishery).

The Gulf of Mexico royal red shrimp trawl fishery and the butterfish trawl fishery overlap within the GOMx Bryde's whale BIA (Rosel *et al.* 2016). However, the royal red shrimp trawl fishery has limited spatial overlap and those areas where spatial overlap occurs represent only a small portion of total fishing effort. The butterfish trawl fishery is small, with only two participants currently permitted, and has limited available information. Thus, the SRT determined that these two fisheries are unlikely to have an interaction with the GOMx Bryde's whale given the limited overlap and total fishing effort.

Pelagic longlines are a known entanglement threat to baleen whales, as the majority of mainline gear is in the water column and animals swimming in the area may interact with the gear (Andersen *et al.* 2008). The Atlantic Ocean, Caribbean, Gulf of Mexico commercial pelagic longline fishery for large pelagic species is active within the GOMx Bryde's whale BIA. Approximately two thirds of the BIA has been closed to commercial pelagic longline fishing year-round since 2000, when the Highly Migratory Species Atlantic Tunas, Swordfish, and Sharks Fishery Management Plan was amended to close the De Soto Canyon Marine Protected Area; however, the BIA is larger than the MPAs and one third of the BIA is still open to pelagic longline fishing (65 FR 47214; August 1, 2000). To date, no interactions between GOMx Bryde's whale and pelagic longline gear have been recorded.

The bottom longline fisheries also are an entanglement threat to the GOMx Bryde's whale. The Gulf of Mexico reef fish and shark bottom longline gear consists of a monofilament mainline up to a mile in length anchored on the seafloor, with up to 1,000 baited hooks along the mainline and marked with buoys. Generally, bottom longline gear poses less of a threat of entanglement to cetaceans compared to pelagic longline gear, except when cetaceans forage along the seafloor. The GOMx Bryde's whales appear to forage along the

seafloor, and therefore they are exposed to risk of entanglement in mainlines. There are no restrictions or areas within the BIA closed to bottom longline fishing. While bottom longlining typically occurs in waters less than 100m, fishing for yellowedge grouper, golden tilefish, blueline tilefish, and sharks occurs in deeper waters between 100 and 400m within the BIA. The available information indicates the GOMx Bryde's whale forages on or near the seafloor bottom, such that potential for interactions exists, given that the majority of mainline gear is anchored on the seafloor (Rosel *et al.* 2016).

Based on the above, the SRT concluded that pelagic and bottom longline gears pose an entanglement risk to the GOMx Bryde's whale where fisheries using these gear types overlap with the species BIA. Thus the SRT scored the threat of entanglement in commercial fisheries is ''moderate'' in severity with ''moderate'' certainty.

Trophic Impacts Due to Commercial Harvest of Prey Items—While GOMx Bryde's whales' prey in the Gulf of Mexico are currently unknown (Rosel *et al.* 2016), they likely feed on anchovy, sardine, mackerel and herring, and small crustaceans, similar to Bryde's whales worldwide (Kato 2000). The two main Gulf of Mexico commercial fisheries for small schooling fish are the Gulf of Mexico menhaden purse-seine fishery and the Florida west coast sardine purse-seine fishery; the main invertebrate fishery is the Gulf of Mexico shrimp trawl fishery. The SRT concluded that direct competition between GOMx Bryde's whale and commercial fisheries did not appear to be likely, based on the current distribution of the GOMx Bryde's whale, the distribution of fishery effort, and presumed fish and invertebrate habitat (Rosel *et al.* 2016). The SRT also evaluated the threat of total biomass removal by the menhaden purse-seine fishery and the shrimp trawl fishery in the Gulf of Mexico and the resulting impact on ecosystem functioning, species composition, and potential trophic pathway alterations, and concluded that the ecosystem and trophic effects of these removals are unknown. Based on the SRT's scoring, the threat from trophic impacts due to commercial harvest of prey is a ''low'' severity threat with ''low'' certainty.

Climate Change—The impacts of climate change on cetaceans are not easily quantified; however, direct and indirect impacts are expected (Evans and Bjørge 2013). Potential impacts of climate change on marine mammals include range shifts, habitat degradation or loss, changes to the food web, susceptibility to disease and contaminants, and thermal intolerance (MacLeod 2009, Evans and Bjørge 2013). The restricted distribution of the GOMx Bryde's whale is a concern, as climate change may disproportionately affect species with specialized or restricted habitat requirements. As water temperatures rise, many marine species will have to shift their distributions northward or in a direction that maintains a near-constant environment (*e.g.,* temperature and prey availability) (Evans *et al.* 2010). Within the Gulf of Mexico, GOMx Bryde's whales have little room to shift their distribution northward into cooler waters. Furthermore, the predicted changes in freshwater inflow and the associated effects on biological productivity may affect the health of the Gulf of Mexico. While recognizing the potential threat that climate change poses to the GOMx Bryde's whale, the SRT considered that there are more significant and immediate pressures on the GOMx Bryde's whale (Rosel *et al.* 2016). The SRT assigned the threat of climate change as a ''low'' severity threat to GOMx Bryde's whale with ''low'' certainty.

Plastics and Marine Debris—Plastics comprise 60–80 percent of all marine debris (Baulch and Perry 2014), and derelict fishing gear is the second most common form of marine debris (National Oceanic Service 2015). There are not many documented interactions of marine mammals with marine debris in the Gulf of Mexico and the SRT did not find any documented cases specific to Bryde's whale (NOAA Fisheries Marine Mammal Health and Stranding Response Database). Less than one percent of marine mammal strandings in the Gulf of Mexico from 2000–2014 showed evidence of entanglement or ingestion of marine debris (NOAA Fisheries Marine Mammal Health and Stranding Response Database). While noting that the records of reported marine mammal strandings may not be comprehensive, the SRT's scoring ranked this threat as ''low'' severity with ''low'' certainty (Rosel *et al.* 2016).

Aquaculture—There are currently no aquaculture facilities in the U.S. waters of the Gulf of Mexico. However, a final rule was published on January 13, 2016 (81 FR 1761) establishing a regulatory program applicable to marine aquaculture in federal waters of the Gulf of Mexico and establishing a regional permitting process. The final rule implements the Fishery Management Plan for Regulating Offshore Marine Aquaculture in the Gulf of Mexico (FMP), prepared by the Gulf of Mexico Regional Fishery Management Council. We note that this final rule is currently under challenge in a pending court proceeding, *Gulf Fishermen's Association, et al.* v. *NMFS,* 16–cv–01271 (E.D. La.). Under the regulations, each facility must satisfy a list of siting requirements and conditions and specifies that an application may be denied for potential risks to essential fish habitat, endangered or threatened species, marine mammals, wild fish stocks, among other reasons (50 CFR 622.103). Marine mammals are known to interact with aquaculture facilities through physical interaction with nets, ropes, twine and anchor lines (Price and Marris 2013). Because each application, including the proposed location, will be considered on a case-by-case basis, taking into account potential impacts to marine mammals, and no aquaculture facilities are currently sited in the Gulf of Mexico, the SRT scoring indicates that the SRT found aquaculture to be a ''low'' severity threat with ''low'' certainty.

Anthropogenic Noise—A variety of anthropogenic noise sources, such as energy exploration (seismic surveys), vessel and shipping traffic, oil and gas drilling and production, and aircraft and vessel traffic associated with oil and gas activities, have considerable energy at low frequencies (<100 Hz) (Sodal 1999; Nieukirk *et al.* 2004; Hildebrand 2009; Nieukirk *et al.* 2012) and are pervasive in the Gulf of Mexico (Rosel *et al.* 2016). Baleen whales produce calls that span a similar low frequency range (20 Hz–30 kHz), and therefore, presumably these species' best hearing abilities fall within this range, and are most impacted by low-frequency sounds (Richardson *et al.* 1995, Ketten 1997, Ketten *et al.* 2013, Cranford and Krysl 2015). Marine mammals rely heavily on their hearing to detect and interpret communication and environmental cues to select mates, find food, maintain group structure and relationships, avoid predators, navigate, and perform other critical life functions (Rosel *et al.* 2016). As noise levels rise in the marine environment, there are a variety of possible direct and indirect adverse physical and behavioral effects to marine mammals such as hearing loss or impairment, stress, behavioral changes, physiological effects, reduced foraging success, reduced reproductive success, masking of communication and environmental cues, and habitat displacement (Richardson *et al.* 1995; Southall *et al.* 2007; Francis and Barber 2013). The SRT evaluated anthropogenic noise and separately assessed, as detailed below, noise from aircraft and vessels associated with oil and gas activities, seismic surveys

associated with oil and gas activities, noise associated with military training and exercises, noise associated with commercial fisheries and scientific acoustics, and noise associated with vessels and shipping traffic.

Noise Generated From Aircraft and Vessels and Oil Drilling and Production Associated With Oil and Gas Activities—Aircraft and vessel operations (service vessels, etc.) support outer continental shelf oil and gas activities in the Gulf of Mexico. Routine aircraft overflights may interrupt and elicit a startle response from marine mammals nearby (Richardson *et al.* 1995). However, if marine mammals are nearby, the disturbance caused by helicopters approaching or departing OCS oil and gas facilities will be short in duration and transient in nature. The SRT reasoned that aircraft and vessel operations may ensonify large areas, but due to the lack of oil and gas activities currently in the eastern Gulf of Mexico, the threat from service aircraft and vessel noise to GOMx Bryde's whale should be minimal.

Oil drilling and production activities produce low-frequency underwater sounds that are in the frequency range detectable by the GOMx Bryde's whale and, given the amount of drilling activity and platforms in the central and western Gulf of Mexico, noise levels are already high. While there are currently no wells being drilled in the eastern Gulf of Mexico, and no production platforms in place, the potential opening of the EPA that overlaps the GOMx Bryde's whale BIA for oil and gas exploration is of considerable concern (Rosel *et al.* 2016). Based on the SRT's scoring, the threat of noise generated from aircraft and vessels associated with oil and gas activities and noise from drilling and oil production is ''moderate,'' with a ''moderate'' level of certainty for noise associated with aircraft and vessels, and the SRT assigned a ''low'' level of certainty for noise generated from drilling and oil production.

Seismic Survey Noise Associated With Oil and Gas Activities—The northern Gulf of Mexico is an area of high seismic survey activity; seismic surveys are typically conducted 24 hours a day, 365 days a year, using airguns that are a source of primarily low-frequency sound (Sodal 1999), and that overlap with ranges baleen whales use for communication and hearing (Rosel *et al.* 2016). These low-frequency sounds can travel substantial distances and airgun sounds have been recorded many hundreds of miles away from the survey locations (Nieukirk *et al.* 2004). Seismic surveys have the potential to cause serious acute auditory injury to animals within 100 m–1 km of airguns with received levels of 230 dB re 1 μPa (peak) or higher (Southall *et al.* 2007). In the 2016 Technical Guidance, this threshold was reduced to 219 dB re 1 μPa (peak), which indicates an area of potential acute auditory injury at equal or greater distance from the sound source than that discussed in Southhall *et al.,* 2007. Behavioral changes following seismic surveys, specifically changes in vocal behavior and habitat avoidance, have been documented for baleen whales (Malme *et al.* 1984, McCauley *et al.* 1998, Gordon *et al.* 2001, Blackwell *et al.* 2015). While reactions of Bryde's whales to seismic surveys have not been studied, the auditory abilities of all baleen whale species are considered to be broadly similar based upon vocalization frequencies and ear anatomy (Ketten 1998). As previously discussed, Bryde's whales could suffer acute auditory injury if seismic survey activity occurred within 1 km of a whale and could experience behavioral responses, including strong avoidance, if activity occurred within 8 km of a whale (Rosel *et al.* 2016). In addition, given the ability of low-frequency sounds to travel substantial distances, sounds from nearby surveys in the northwestern portion of the CPA, near the northeastern extent of the species' BIA, could expose the GOMx Bryde's whales in the BIA to noise at levels that could increase their stress, reduce their foraging and reproductive success, and mask communications and environmental cues. In addition, the SRT found that after 2022, when the moratorium on lease sales expires, the species are likely to be exposed to increased seismic survey activity and associated noise levels that could increase the potential for these effects. The SRT noted that in 2009, seismic survey activity was high in the EPA, but that in following years they did not expect as much activity, due in part to the moratorium on new lease sales and production in the EPA. However, the SRT explained that the spatial distribution of surveying activity in the Gulf of Mexico varies inter-annually, and they expect seismic survey activity to increase following expiration of the moratorium. If seismic survey activity increases, the SRT expects that the species will be exposed to ambient noise at levels that would interfere with their ability to communicate and could be at risk of acute auditory injury or behavioral responses. The SRT scored anthropogenic noise associated with seismic surveys as a ''high'' severity threat with ''moderate'' certainty.

Noise Associated With Military Training and Exercises—Military training and exercises use active sonar sources and explosives as part of their operations and each of these sources have the potential to impact marine mammals (Rosel *et al.* 2016). However, as discussed above, most military activities that occur in the Gulf of Mexico take place outside of the GOMx Bryde's whale BIA, and the Navy expanded their Planning Awareness Area to encompass the BIA (see *Military Activities* above). The SRT found this threat to be less likely to have a negative impact on the GOMx Bryde's whale compared to other threats associated with the anthropogenic noise considered in this sub-category. Therefore, the SRT assigned the threat of noise associated with military training and exercises as ''low'' in severity with a ''moderate'' level of certainty.

Noise Associated With Commercial Fisheries and Scientific Acoustics—Commercial and scientific vessels use active sonar for the detection, localization, and classification of underwater targets, including the seafloor, plankton, fish, and human divers (Hildebrand 2009). Source frequencies of many of these sonars are likely above the frequency range for Bryde's whale hearing (Watkins 1986, Au *et al.* 2006, Tubelli *et al.* 2012). Recent technological advancements, such as the Ocean Acoustic Waveguide Remote Sensing (OAWRS) system, use low-frequency acoustics that have the potential to impact baleen whale behavior (Risch *et al.* 2012). However, the SRT concluded these low-frequency systems are not likely to be used in U.S. waters in the future (Rosel *et al.* 2016). Because the acoustic frequencies associated with the sonar systems used by commercial fisheries and scientific vessels are not within the range of GOMx Bryde's whale hearing and are not likely to be used in the Gulf of Mexico, the SRT assigned the threat of noise associated with commercial fisheries and scientific acoustics a ranking of ''low'' in severity with ''low'' certainty.

Noise Associated With Shipping Traffic and Vessels—Noise from shipping traffic is an unintended byproduct of shipping and depends on factors such as ship type, load, speed, ship hull and propeller design; noise levels increase with increasing speed and vessel size (Allen *et al.* 2012, McKella *et al* 2012b, Rudd *et al.* 2015). Shipping noise is characterized by mainly low frequencies (Hermannsen *et al.* 2014) and contributes significantly to low-frequency noise in the marine

environment (National Research Council 2003, Hildebrand 2009). Approximately 50 percent of U.S. merchant vessel traffic (as measured by port calls or tonnage for merchant vessels over 1,000 gross tons) occurs at U.S. Gulf of Mexico ports, indicating shipping activity is a significant source of noise in this region. Noise is likely to increase as shipping trends indicate that faster, larger ships will traverse the Gulf of Mexico following expansion of the Panama Canal (Rosel *et al.* 2016).

Shipping noise in the northeast United States was predicted to reduce the communication space of humpback whales, right whales, and fin whales by 8 percent, 77 percent, and 20 percent, respectively, by masking their calls (Clark *et al.* 2009). Because Bryde's whale call source levels are most similar to those of right whales, the SRT found they may be similarly impacted (Rosel *et al.* 2016). Documented impacts of vessel and shipping noise on marine mammals, like the GOMx Bryde's whale, include: Habitat displacement; changes in diving and foraging behavior; changes in vocalization behavior; and altered stress hormone levels (Rosel *et al.* 2016).

The SRT found that there is a high level of low frequency noise caused by shipping activity in the Gulf of Mexico, and that it is likely the GOMx Bryde's whale is experiencing significant biological impacts as a result. The impacts to the GOMx Bryde's whale are assumed to be similar to those observed in other low frequency hearing baleen whale species, and include increased stress hormone levels, changes in dive and foraging behavior and communication, and habitat displacement. The SRT assigned the threat of noise associated with shipping traffic and vessels a score of ''moderate'' severity threat with ''moderate'' certainty.

Small Population Concerns

The final sub-category considered by the SRT under ESA factor E was small population concerns. The SRT considered Allee effects, demographic stochasticity, genetic stochasticity, k-selected life-history parameters, and stochastic and catastrophic events under this sub-category.

Allee Effects—If a population is critically small in size, individuals may have difficulty finding a mate. The probability of finding a mate depends largely on density (*i.e.,* abundance per area) rather than absolute abundance alone (Rosel *et al.* 2016). As previously discussed, noise from ships and industrial oil activities, including seismic exploration, could mask mating calls and contribute to reduced fecundity of the GOMx Bryde's whale (Rosel *et al.* 2016). The small population size (*i.e.,* likely fewer than 100 individuals, with 50 or fewer at maturity) may mean that Allee effects are occurring, making it difficult for individual whales to find one another for breeding, thereby reducing the population growth rate. The SRT's scored the impacts from Allee effects as a ''moderate'' threat in both severity and certainty.

Demographic Stochasticity—Demographic stochasticity refers to the variability of annual population change arising from random birth and death events at the individual level. Populations that are small in number are more vulnerable to adverse effects from demographic stochasticity. Demographic stochasticity is also more problematic for slowly reproducing species, such as GOMx Bryde's whales, which under normal conditions are likely to produce a calf every 2 to 3 years, similar to Bryde's whales worldwide and Eden's whale. Mean population growth rates can be reduced by variances in inter-annual growth rates, and this variance steadily increases as the population size decreases (Goodman 1987). The SRT also noted that, while skewed sex ratios do not currently appear to be a problem for GOMx Bryde's whales, their low calving rate and small population size create a higher probability of developing skewed sex ratios through chance alone. The SRT's scored the threat from impacts from demographic stochasticity as ''high'' in both severity and certainty.

Genetics—Genetic stochasticity results from three separate factors: Inbreeding depression, loss of potentially adaptive genetic diversity, and mutation accumulation (Frankham 2005; Reed 2005). The SRT concluded that the very small population size and documented low level of genetic diversity (Rosel and Wilcox 2014) indicates that the GOMx Bryde's whale is likely already experiencing inbreeding (mating with related individuals) that could lead to a loss of potentially adaptive genetic diversity and accumulation of deleterious mutations (Frankham 2005, Reed 2005). Applying the estimate from Taylor *et al.* (2007) of 0.51 for the proportion of a Bryde's whale population that is mature, and assuming a stable age distribution, the SRT concluded there would be at most 50 mature individuals for the GOMx Bryde's whale population, putting the whales at immediate recognized risk for genetic factors. Even with a 50–50 sex ratio, the SRT concluded that current abundance estimates are so low that current Bryde's whale population levels would meet any genetic risk threshold for decreased population growth due to inbreeding depression and potential loss of adaptive genetic diversity (Rosel *et al.* 2016). The SRT scored the threat of genetic stochasticity as ''high'' in both severity and certainty.

K-Selected Life History Parameters—In general all whales are considered as k-selected species due to their life history characteristics of large-size, late-maturity, and iteroparous reproduction that is energetically expensive, resulting in few offspring. K-selected life history characteristics in and of themselves are not a problem for baleen whales, but a small population size coupled with a low productivity rate further hinders population growth and increases the time frame for recovery when, as with the GOMx Bryde's whale, the population size is small and vulnerable to threats (Rosel *et al.* 2016). The SRT assigned the threat from k-selective life history parameters a score of ''high'' in severity and certainty.

Stochastic and Catastrophic Events—The small number of GOMx Bryde's whales and their restricted range (*i.e.,* De Soto Canyon area of the northeastern Gulf of Mexico) exacerbates the species' vulnerability to stochastic and catastrophic events. Further, the GOMx Bryde's whales are in close proximity to oil extraction developments and areas that could be affected by extreme weather events and harmful algal blooms. For example, an analysis of the impacts of the DWH oil spill on cetacean stocks in the Gulf of Mexico estimated that 17 percent of the GOMx Bryde's whale population was killed (DWH Trustees 2016). The SRT scored the threat from stochastic and catastrophic events on the GOMx Bryde's whale as ''high'' in severity with ''high'' certainty.

Summary of Factor E

The SRT's overall threat ranking for the threats we consider under ESA factor E was influenced by a suite of threats. The SRT separately ranked the overall threat of three groups of threats, ''other natural or human factors'' affecting the species' continued existence, small population concerns, and anthropogenic noise. Under the ''other natural and human factors'' category, based on the SRT's scoring, vessel collision, followed by fishing gear entanglements, presents the most serious individual threats the SRT considered. The threat of vessel collision is a significant source of mortality for a variety of coastal whale species and several important

commercial shipping lanes travel through the GOMx Bryde's whale BIA (Rosel *et al.* 2016). Fishing gear entanglement from the pelagic longline and bottom longline fisheries is a threat due to the spatial overlap between these fisheries and the Bryde's whale BIA, and the potential for interactions with the gear given the whale's foraging behavior (Rosel *et al.* 2016). The SRT's overall ranking for its generic ''other natural of human factors'' is moderate-high. The SRT's overall threat ranking for the category of ''anthropogenic noise'' was ''high,'' which was driven largely by the impacts of noise associated with seismic surveys, vessel and shipping traffic, oil and gas drilling and production, and aircraft and vessel traffic associated with oil and gas activities. The greatest threat identified by the SRT under ESA factor E was ''small population concerns,'' which the SRT's scoring unanimously assigned a ''high'' overall threat ranking.

In summary, the SRT found the level of anthropogenic noise in the Gulf of Mexico, the risk of vessel collisions, fishing gear entanglements, in combination with the small population size, are threats that are likely to eliminate or seriously degrade the population. The overall ranking the SRT assigned for factor E was ''high'' (*i.e.,* two high overall rankings for anthropogenic noise and small population concerns and one moderate-high overall ranking for its ''other natural and human factors'' category), indicating that there are a high number of threats that are moderately or very likely to contribute to the decline of the GOMx Bryde's whale. Considering the assessment completed by the SRT, we determine that the threats considered under factor E, including small population concerns; anthropogenic noise from seismic surveys, shipping traffic and vessels, and vessels and aircraft supporting oil and gas activities; vessel collision; and fishing gear entanglements are contributing to the risk of extinction for the GOMx Bryde's whale.

NMFS' Conclusions From Threats Evaluation

The most serious threats to the GOMx Bryde's whale are: Small population size, energy exploration, development, and production, oil spills and oil spill responses, vessel collision, anthropogenic noise, and fishing gear entanglement. We considered these threats under ESA section 4(a)(1) factors A and E; overall, we view the risk from factors A and E as high. We agree with the SRT's assessment that these threats are currently affecting the status of the GOMx Bryde's whale, and find that they are putting it at a heightened risk of extinction. We also agree with the SRT's characterization of factors B and C, overutilization for commercial, recreational, scientific, or educational purposes and disease, parasites, or predation, and their low overall ranking. We find that these are not factors that are likely contributing to the extinction risk for the GOMx Bryde's whale. Finally, we agree with the SRT's overall assessment for factor D, and we conclude that existing regulatory measures are not adequate to control the threats that are contributing to the species' extinction risk identified under factors A and E.

Demographic Risk Analysis

The SRT also evaluated four demographic factors—abundance, spatial distribution, growth/productivity, and genetic diversity—to assess the degree of extinction risk. These demographic criteria have been used in previous NMFS status reviews to summarize and assess a population's extinction risk due to demographic processes. The SRT used the following definitions to rank these factors: 1 = ''No or low risk: it is unlikely that this factor contributes significantly to risk of extinction, either by itself or in combination with other factors;'' 2 = ''Low risk: it is unlikely that this factor contributes significantly to risk of extinction by itself, but some concern that it may contribute, in combination with other factors;'' 3 = ''Moderate risk: it is likely that this factor in combination with others contributes significantly to risk of extinction;'' 4 = ''High risk: it is likely that this factor, by itself, contributes significantly to risk of extinction''; and 5 = ''Very high risk: it is highly likely that this factor, by itself, contributes significantly to risk of extinction.'' As described in detail below, the SRT concluded that each of these four demographic factors are likely to contribute significantly to the risk of extinction for the GOMx Bryde's whale.

The SRT determined that both abundance and spatial distribution were ''very high risk'' factors, meaning that it is highly likely that each factor, by itself, contributes significantly to the risk of extinction. The SRT concluded the best available scientific information indicated: (1) The number of GOMx Bryde's whales is likely fewer than 100 individuals with 50 or fewer mature individuals, and (2) their current distribution is restricted to a small region along the continental shelf break (100–400 m) in the De Soto Canyon makes them vulnerable to catastrophe. The SRT concluded that the GOMx Bryde's whale constitutes a dangerously small population, at or below the near-extinction population level, and the species' restricted range makes it vulnerable to a single catastrophic event (Rosel *et al.* 2016).

The SRT ranked both growth/productivity and genetic diversity as ''high'' risk factors, meaning that it is likely that each factor, by itself, contributes significantly to the risk of extinction. The SRT noted that the life-history characteristics of the GOMx Bryde's whale (*i.e.,* late-maturing, long gestation, single offspring) result in a slower recovery ability from their small population size and lead to a longer time during which a risk factor like a catastrophe could occur (Rosel *et al.* 2016). Allee effects were also identified by the SRT as increasing extinction risk because the small number of individuals reduces population growth rate through mate limitation (Rosel *et al.* 2016). Similarly, the low level of genetic diversity, documented in both mtDNA and nuclear DNA by Rosel and Wilcox (2014), combined with the small population size, means that individuals are likely breeding with related individuals and inbreeding depression may be occurring, resulting in a loss of genetic diversity (Rosel *et al.* 2016).

Extinction Risk Assessment

The SRT considered the information provided in the status review and demographic risk factors to conduct an extinction risk assessment. The SRT summarized its ERA for the GOMx Bryde's whale, placing it in the context of our agency guidelines on how to synthesize extinction risk (NMFS 2015). Those agency guidelines define categories of extinction risk. The high extinction risk category is defined as:

> A species or DPS with a high risk of extinction is at or near a level of abundance, productivity, spatial structure, and/or diversity that places its continued persistence in question. The demographics of a species, subspecies, or DPS at such a high level of risk may be highly uncertain and strongly influenced by stochastic or depensatory processes. Similarly, a species or DPS may be at high risk of extinction if it faces clear and present threats (*e.g.,* confinement to a small geographic area; imminent destruction, modification, or curtailment of its habitat; or disease epidemic) that are likely to create present and substantial demographic risks.

Applying this standard, the SRT unanimously agreed that the GOMx Bryde's whale has a high risk of extinction.

We consider the SRT's approach to assessing the extinction risk for GOMx Bryde's whale appropriate and based on

the best scientific and commercial information available. Based on the key conclusions from the status review, including the ERA (Rosel *et al.* 2016), we find that the GOMx Bryde's whale is a species, as defined by the ESA, that is at high risk of extinction as a result of ESA factors A, D, and E.

Protective Efforts

Section 4(b)(1)(A) of the ESA requires the Secretary, when making a listing determination for a species, to take into consideration those efforts, if any, being made by any State or foreign nation to protect the species. To evaluate the efficacy of domestic efforts that have not yet been implemented or that have been implemented, but have not yet been demonstrated to be effective, the Services developed a joint ''Policy for Evaluation of Conservation Efforts When Making Listing Decisions'' (PECE) (68 FR 15100; March 28, 2003). The PECE is designed to ensure consistent and adequate evaluation of formalized domestic conservation efforts that have not yet been implemented, or that have been implemented but not yet proven to be effective, when making listing determinations. The PECE is expected to facilitate the development of conservation efforts by states and other entities that sufficiently improve a species' status so as to make listing the species as threatened or endangered unnecessary.

The PECE establishes two overarching criteria to use in evaluating efforts identified in conservations plans, conservation agreements, management plans or similar documents: (1) For those efforts yet to be implemented, the certainty that the conservation effort will be implemented and (2) for those efforts that have not yet demonstrated effectiveness, the certainty that the conservation effort will be effective.

The status review (Rosel *et al.* 2016) summarized two known conservation efforts, both of which are planned and have yet to be implemented, and we further assess them here: The DWH PDARP and the GoMMAPPS. The restoration plan in the PDARP is a framework for planning future restoration projects. For marine mammals, the PDARP focuses on restoration activities that support population resilience, reduce further harm or impacts, and complement existing management priorities, with the goal of compensating for the population injuries suffered by each marine mammal stock. GOMx Bryde's whales were the most impacted offshore cetacean by the DWH oil spill, suffering an estimated 22 percent maximum decline in population size (DWH Trustees 2016). Although specific projects are not yet identified to implement Bryde's whale restoration, we anticipate that they should benefit the population, but, considering the species' life history, population recovery to pre-spill levels will take decades. More importantly, the population estimates considered by the SRT were pre-spill and were still found to represent a high extinction risk. Therefore, the conservation benefits that may be expected through implementation of the PDARP would not be expected to reduce the extinction risk for Bryde's whale to such a degree that this population would qualify as threatened or that listing is not warranted.

We also considered the proposed results from GoMMAPPS and its potential to protect and restore the population of GOMx Bryde's whale. The purpose of this program is to improve information about abundance, distribution, habitat use, and behavior of living marine resources (*e.g.,* marine mammals, sea turtles, sea birds) in the Gulf of Mexico, as well as to mitigate and monitor potential impacts of human activities. GoMMAPPS promotes collaborations via data sharing with other research efforts in the Gulf of Mexico, including potentially with Mexico. Given the scope of the program, studies are likely to increase scientific understanding of the GOMx Bryde's whale and its habitat, support management decisions, and monitor potential impacts of human activities. GoMMAPPS is likely to provide significantly improved information on the status of protected species in the Gulf of Mexico, possibly including GOMx Bryde's whales, and we anticipate that this information can be used to protect Bryde's whales more effectively in the future. However, these conservation benefits will require secondary actions that are not currently known. Therefore, we conclude that the conservation benefits from GOMAPPS to Bryde's whales are too diffuse and uncertain to be considered effective measures per the PECE. After taking into account these conservation efforts, the current status of GOMx Bryde's whale, and our evaluation of the section 4(a)(1) factors, we conclude that the conservation efforts identified cannot be considered effective measures in reducing the current extinction risk.

Final Determination

We reviewed the best available scientific and commercial information, including the information in the status review (Rosel *et al.* 2016), which incorporated comments from the peer reviewers. Based on the status review, our evaluation of protective efforts, and consideration of all public comments, we determined that the GOMx Bryde's whale meets the definition of endangered under the ESA. We found that the GOMx Bryde's whale is a species, as defined by the ESA, which is in danger of extinction throughout all of its range as a result of ESA section 4(a)(1) factors A, D, and E. We summarize the results of our determination as follows: (1) The GOMx Bryde's whales are distinct from Bryde's whales worldwide such that we have determined it to be a subspecies; (2) the current range of the GOMx Bryde's whale is restricted to the northeastern Gulf of Mexico (*i.e.,* Bryde's whale BIA) and is significantly smaller than the historical range; (3) the population is small, likely containing fewer than 100 individuals, with 50 or fewer mature individuals; (4) energy exploration, development, and production, oil spills and oil spill responses, vessel collision, fishing gear entanglement, and anthropogenic noise are threats that contribute to its risk of extinction; and (5) the existing regulatory mechanisms are not adequate to control those threats. After considering efforts being made to protect the species, we conclude that existing or proposed conservation efforts would not alter the extinction risk. Accordingly, we have determined that the GOMx Bryde's whale warrants listing as an endangered species under the ESA. We evaluated the threats to the species alone and in combination; however, we note that the whale's small population size (and the associated risks) and restricted range alone would support our determination.

Effects of This Rulemaking

Conservation measures provided for species listed as endangered under the ESA include recovery actions (16 U.S.C. 1533(f)); concurrent designation of critical habitat, if prudent and determinable (16 U.S.C. 1533(a)(3)(A)); Federal agency consultation requirements (16 U.S.C. 1536); and prohibitions on taking the species (16 U.S.C. 1538). Recognition of the species' plight through listing promotes conservation actions by Federal and state agencies, foreign entities, private groups, individuals, as well as the international community. The main effects of the listing are prohibitions on take. Both a recovery program and designation of critical habitat could result from this final listing. Given its narrow range in the De Soto Canyon region of the northeastern Gulf of Mexico, and existing threats, a regional cooperative effort to protect and restore

the population is necessary. Federal, state, and the private sectors will need to cooperate to conserve listed GOMx Bryde's whales and the ecosystem upon which they depend.

Marine Mammal Protection Act

The MMPA provides substantial protections to all marine mammals, such as GOMx Bryde's whales, whether they are listed under the ESA or not. In addition, the MMPA provides heightened protections to marine mammals designated as ''depleted'' (*e.g.,* additional restrictions on the issuance of permits for research, importation, and captive maintenance). Section 3(1) of the MMPA defines ''depleted'' as ''any case in which'': (1) The Secretary determines that a species or population stock is below its optimum sustainable population; (2) a State to which authority has been delegated makes the same determination; or (3) a species or stock is listed as an endangered species or a threatened species under the ESA (16 U.S.C. 1362(1)). Section 115(a)(1) of the MMPA establishes that in any action by the Secretary to determine if a species or stock should be designated as depleted, or should no longer be designated as depleted, such determination must be made by rule, after public notice and an opportunity for comment, and after a call for information (16 U.S.C. 1383b(a)(1)). It is our position that a marine mammal species or stock automatically gains ''depleted'' status under the MMPA when it is listed under the ESA.

Identifying ESA Section 7 Consultation Requirements

Section 7(a)(2) of the ESA and joint NMFS/U.S. Fish and Wildlife Service regulations require Federal agencies to consult with us on any actions they authorize, fund, or carry out if those actions may affect the listed species or designated critical habitat within our jurisdiction. Based on currently available information, we conclude that examples of Federal actions that may affect GOMx Bryde's whale include, but are not limited to: Authorizations for energy exploration (*e.g.,* habitat modification, noise from seismic surveys), energy production (*e.g.,* oil drilling and production), actions such as port deepening and expansion that directly or indirectly introduce vessel traffic that could result in collisions, and military activities and fisheries regulations that may impact the species.

Prohibitions and Protective Measures

All of the ESA section 9(a)(1) (16 U.S.C. 1538(a)(1)) prohibitions apply to all species listed as endangered. Under section 9(a)(1), it is unlawful for any person subject to the jurisdiction of the United States to (A) import any such species into, or export any such species from the United States; (B) take any such species within the United States or the territorial sea of the United States; (C) take any such species upon the high seas; (D) possess, sell, deliver, carry, transport, or ship, by any means whatsoever, any such species taken in violation of subparagraphs (B) and (C); (E) deliver, receive, carry, transport, or ship in interstate or foreign commerce, by any means whatsoever and in the course of a commercial activity, any such species; (F) sell or offer for sale in interstate or foreign commerce any such species. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. 16 U.S.C. 1532(3)(19). These prohibitions apply to all persons subject to the jurisdiction of the United States, including in the United States or on the high seas.

Sections 10(a)(1)(A) and (B) of the ESA (16 U.S.C. 1539(a)(1)(A) and (B)) provide us with authority to grant exceptions to the ESA's section 9 ''take'' prohibitions. Section 10(a)(1)(A) scientific research and enhancement permits may be issued to entities (Federal and non-Federal) for scientific purposes or to enhance the propagation or survival of a listed species. The type of activities potentially requiring a section 10(a)(1)(A) research/enhancement permit include scientific research that targets GOMx Bryde's whales, including the importation of non-U.S. samples for research conducted in the United States. Section 10(a)(1)(B) incidental take permits are required for non-Federal activities that may incidentally take a listed species in the course of an otherwise lawful activity.

Identification of Those Activities That Would Likely Constitute a Violation of Section 9 of the ESA

On July 1, 1994, NMFS and the FWS issued an *Interagency Cooperative Policy for Endangered Species Act Section 9 Prohibitions* (59 FR 34272). The intent of this policy is to increase public awareness of the effect of our ESA listings on proposed and ongoing activities within the species' range. We identify specific activities that will be considered likely to result in violation of section 9, as well as activities that will not be considered likely to result in violation. Activities that we believe could result in violation of section 9 prohibitions against ''take'' of the GOMx Bryde's whale include: (1) Unauthorized harvest or lethal takes by U.S. citizens; (2) in-water activities conducted by U.S. citizens that produce high levels of underwater noise, which may harass or injure the whales; (3) vessel strikes from ships operating in U.S. waters of the Gulf of Mexico; (4) U.S. fisheries that may result in entanglement of the whales; and (5) discharging or dumping toxic chemicals or other pollutants by U.S. citizens into habitat used by GOMx Bryde's whale.

We expect, based on the best available scientific and commercial information, the following actions are not likely to result in a violation of section 9: (1) Federally funded or approved projects for which ESA section 7 consultation has been completed and necessary mitigation developed, and that are conducted in accordance with any terms and conditions we provide in any incidental take statement accompanying a biological opinion; and (2) takes of GOMx Bryde's whales that have been authorized by NMFS pursuant to section 10 of the ESA.

These lists are not exhaustive. They are intended to provide some examples of the types of activities that may not constitute a take of the GOMx Bryde's whale. Whether a violation results from a particular activity is entirely dependent upon the facts and circumstances of each incident. Further, an activity not listed may in fact constitute or result in a violation.

Critical Habitat

Critical habitat is defined in section 3 of the ESA (16 U.S.C. 1532(5)(A)) as (1) the specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the ESA, on which are found those physical or biological features (a) essential to the conservation of the species and (b) which may require special management considerations or protection; and (2) specific areas outside the geographical area occupied by a species at the time it is listed in accordance with the ESA, upon a determination that such areas are essential for the conservation of the species. ''Conservation'' means the use of all methods and procedures which are necessary to bring the species to the point at which listing under the ESA is no longer necessary (16 U.S.C. 1532(3)). Designations of critical habitat must be based on the best scientific data available and must take into consideration the economic, national security, and other relevant impacts of specifying any particular area as critical habitat (16 U.S.C. 1533(b)(2)). Once critical habitat is designated, section 7 of the ESA requires Federal agencies to

ensure that any action they authorize, fund, or carry out is not likely to destroy or adversely modify that habitat (16 U.S.C. 1536(a)(2)). This requirement is in addition to the section 7 requirement that Federal agencies ensure that their actions are not likely to jeopardize the continued existence of listed species.

Section 4(a)(3)(A) of the ESA (16 U.S.C. 1533(a)(3)(A)) requires that, to the maximum extent prudent and determinable, critical habitat be designated concurrently with the listing of a species, unless as described in section 4(b)(6)(C), critical habitat is not then determinable, in which case we may take an additional year to publish the final critical habitat determination (16 U.S.C. 1533(b)(6)(C)(ii)). We are currently evaluating the areas within the geographical area currently occupied by the species as well as the areas outside the geographical area occupied by the species that may meet the definition of critical habitat under the ESA. However, critical habitat is not determinable at this time. Therefore, we will propose critical habitat in a future rulemaking if determinable, as appropriate.

Peer Review

In December 2004, the Office of Management and Budget (OMB) issued a Final Information Quality Bulletin for Peer Review establishing minimum standards for when peer review is required for scientific information and the types of peer review that should be considered by agencies in different circumstances, a transparent process for public disclosure of peer review planning, and opportunities for public participation. The OMB Bulletin implemented under the IQA (Pub. L. 106–554) and OMB's general authorities to oversee the quality of agency information, analyses, and regulatory actions is intended to enhance the quality and credibility of the Federal government's scientific information, and applies to influential or highly influential scientific information disseminated on or after June 16, 2005. To satisfy our requirements under the OMB Bulletin, we received peer reviews from three independent peer reviewers on the status review (Rosel *et al.* 2016). All pertinent peer reviewer comments were addressed prior to dissemination of the final status review, the proposed rule, and publication of this final rule. We conclude that these experts' reviews satisfy the requirements for ''adequate [prior] peer review'' contained in the Bulletin (sec. II.2.). The peer review report is available at: *http://www.cio.noaa.gov/services_programs/prplans/ID337.html*

References

A complete list of the references used in this final rule is available upon request, and also available at: *http://sero.nmfs.noaa.gov/protected_resources/brydes_whale/index.html.*

Classification

National Environmental Policy Act (NEPA)

The 1982 amendments to the ESA, in section 4(b)(1)(A), restrict the information that may be considered when assessing species for listing (16 U.S.C. 1533(b)(1)(A)). Based on this limitation of criteria for a listing decision and the opinion in *Pacific Legal Foundation* v. *Andrus,* 657 F. 2d 829 (6th Cir. 1981), we have concluded that NEPA does not apply to ESA listing actions. (See NOAA Administrative Order 216–6A and the Companion Manual for NOAA Administrative Order 216–6A, regarding Policy and Procedures for Compliance with the National Environmental Policy Act and Related Authorities).

Executive Order (E.O.) 12866, Paperwork Reduction Act, and Regulatory Flexibility Act

This rule is exempt from review under E.O. 12866. This final rule does not contain a collection of information requirement for the purposes of the Paperwork Reduction Act.

As noted in the Conference Report on the 1982 amendments to the ESA, economic impacts cannot be considered when assessing the status of a species. Therefore, the economic analyses required by the Regulatory Flexibility Act are not applicable to the listing process.

E.O. 13132, Federalism

E.O. 13132 requires agencies to take into account any federalism impacts of regulations under development. It includes specific directives for consultation in situations where a regulation has federalism implications and will either preempt state law or impose substantial direct compliance costs on state and local governments (unless required by statute). Policies that have federalism implications refers to regulations, legislative comments or proposed legislation, and other policy statements or actions that have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. This final rule does not have federalism implications; therefore the agency did not follow the additional consultation procedures outlined in E.O. 13132.

Executive Order 12898, Environmental Justice

Executive Order 12898 requires that Federal actions address environmental justice in the decision-making process. In particular, the environmental effects of the actions should not have a disproportionate effect on minority and low-income communities. This final rule is not expected to have a disproportionately high effect on minority populations or low-income populations.

List of Subjects in 50 CFR Part 224

Endangered and threatened species.

Dated: April 3, 2019.

Samuel D. Rauch, III,

Deputy Assistant Administrator for Regulatory Programs, National Marine Fisheries Service.

For the reasons set out in the preamble, 50 CFR part 224 is amended as follows:

PART 224—ENDANGERED MARINE AND ANADROMOUS SPECIES

■ 1. The authority citation for part 224 continues to read as follows:

Authority: 16 U.S.C. 1531–1543 and 16 U.S.C. 1361 *et seq.*

■ 2. In § 224.101, in the table in paragraph (h), add an entry for ''Whale, Bryde's (Gulf of Mexico subspecies)'' under MARINE MAMMALS in alphabetical order by common name to read as follows:

§ 224.101 Enumeration of endangered marine and anadromous species.

* * * * *

(h) * * *

Species [1]			Citation(s) for listing determination(s)	Critical habitat	ESA rules
Common name	Scientific name	Description of listed entity			
*	*	*	*	*	*
Marine mammals					
*	*	*	*	*	*
Whale, Bryde's (Gulf of Mexico subspecies).	*Balaenoptera edeni (unnamed subspecies).*	Bryde's whales that breed and feed in the Gulf of Mexico.	84 FR [Insert **Federal Register** page where the document begins], April 15, 2019.	NA	NA
*	*	*	*	*	*

[1] Species includes taxonomic species, subspecies, distinct population segments (DPSs) (for a policy statement, see 61 FR 4722, February 7, 1996), and evolutionarily significant units (ESUs) (for a policy statement, see 56 FR 58612, November 20, 1991).

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Part IV

The President

Executive Order 13867—Issuance of Permits With Respect to Facilities and Land Transportation Crossings at the International Boundaries of the United States

Executive Order 13868—Promoting Energy Infrastructure and Economic Growth

Federal Register
Vol. 84, No. 72
Monday, April 15, 2019

Presidential Documents

Title 3—

The President

Executive Order 13867 of April 10, 2019

Issuance of Permits With Respect to Facilities and Land Transportation Crossings at the International Boundaries of the United States

By the authority vested in me as President by the Constitution and the laws of the United States of America, including Article II of the Constitution, which gives the President authority over foreign affairs and the authority to seek the opinions of principal officers, it is hereby ordered as follows:

Section 1. *Purpose.* Presidents have long exercised authority to permit or deny the construction, connection, operation, or maintenance of infrastructure projects at an international border of the United States (cross-border infrastructure). Over the course of several decades, executive actions, Federal regulations, and policies of executive departments and agencies (agencies) related to the process of reviewing applications for Presidential permits, and issuing or denying such permits, have unnecessarily complicated the Presidential permitting process, thereby hindering the economic development of the United States and undermining the efforts of the United States to foster goodwill and mutually productive economic exchanges with its neighboring countries. To promote cross-border infrastructure and facilitate the expeditious delivery of advice to the President regarding Presidential permitting decisions, this order revises the process for the development and issuance of Presidential permits covering the construction, connection, operation, and maintenance of certain facilities and land transportation crossings at the international boundaries of the United States.

Sec. 2. *Cross-Border Infrastructure Presidential Permit Application Procedures.* (a) The Secretary of State shall adopt procedures to ensure that all actions set forth in subsections (b) through (h) of this section can be completed within 60 days of the receipt of an application for a Presidential permit for the types of cross-border infrastructure identified in subsection (b) of this section.

(b) Except with respect to facilities covered by Executive Order 10485 of September 3, 1953 (Providing for the Performance of Certain Functions Heretofore Performed by the President With Respect to Electric Power and Natural Gas Facilities Located on the Borders of the United States), as amended, and section 5(a) of Executive Order 10530 of May 10, 1954 (Providing for the Performance of Certain Functions Vested in or Subject to the Approval of the President), the Secretary of State is hereby designated to receive all applications for the issuance or amendment of Presidential permits for the construction, connection, operation, or maintenance, at the international boundaries of the United States, of:

(i) pipelines, conveyor belts, and similar facilities for exportation or importation of all products to or from a foreign country;

(ii) facilities for the exportation or importation of water or sewage to or from a foreign country;

(iii) facilities for the transportation of persons or things, or both, to or from a foreign country;

(iv) bridges, to the extent that congressional authorization is not required;

(v) similar facilities above or below ground; and

(vi) border crossings for land transportation, including motor and rail vehicles, to or from a foreign country, whether or not in conjunction with the facilities identified in subsection (b)(iii) of this section.

(c) Upon receipt of an application pursuant to subsection (b) of this section, the Secretary of State may:

(i) request additional information from the applicant that the President may deem necessary; and

(ii) refer the application and pertinent information to heads of agencies specified by the President.

(d) The Secretary of State shall, as soon as practicable after receiving an application pursuant to subsection (b) of this section, advise the President as to whether the President should request the opinion, in writing, of any heads of agencies concerning the application and any related matter. Any agency heads whose opinion the President requests shall provide views and render such assistance as may be requested, consistent with their legal authority, in a timely manner, not to exceed 30 days from the date of a request, unless the President otherwise specifies.

(e) With respect to each application, the Secretary of State may solicit such advice from State, tribal, and local government officials, and foreign governments, as the President may deem necessary. The Secretary shall seek responses within no more than 30 days from the date of a request.

(f) Upon receiving the views and assistance described in subsections (c), (d), and (e) of this section, the Secretary of State shall consider whether additional information may be necessary in order for the President to evaluate the application, and the Secretary shall advise the President accordingly. At the direction of the President, the Secretary shall request any such additional information.

(g) If, at the conclusion of the actions set forth in subsections (b) through (f) of this section, the Secretary of State is of the opinion that the issuance of a Presidential permit to the applicant, or the amendment of an existing Presidential permit, would not serve the foreign policy interests of the United States, the Secretary shall so advise the President, and provide the President with the reasons supporting that opinion, in writing.

(h) If, at the conclusion of the actions set forth in subsections (b) through (f) of this section, the Secretary of State is of the opinion that the issuance of a Presidential permit to the applicant, or the amendment of an existing Presidential permit, would serve the foreign policy interests of the United States, the Secretary shall so advise the President, and provide the President with the reasons supporting that opinion, in writing.

(i) Any decision to issue, deny, or amend a permit under this section shall be made solely by the President.

(j) The Secretary of State shall, consistent with applicable law, review the Department of State's regulations and make any appropriate changes to them to ensure consistency with this order by no later than May 29, 2020.

(k) Executive Order 13337 of April 30, 2004 (Issuance of Permits With Respect to Certain Energy-Related Facilities and Land Transportation Crossings on the International Boundaries of the United States), and Executive Order 11423 of August 16, 1968 (Providing for the Performance of Certain Functions Heretofore Performed by the President With Respect to Certain Facilities Constructed and Maintained on the Borders of the United States), as amended, are hereby revoked.

Sec. 3. *Existing Permits.* All permits heretofore issued pursuant to the orders enumerated in section 2(k) of this order, and in force at the date of this order, shall remain in full effect in accordance with their terms unless and until modified, amended, suspended, or revoked by the appropriate authority.

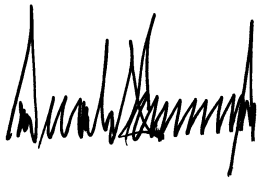
Sec. 4. *General Provisions.* (a) Nothing in this order shall be construed to impair or otherwise affect:

(i) the authority granted by law to an executive department or agency, or the head thereof; or

(ii) the functions of the Director of the Office of Management and Budget relating to budgetary, administrative, or legislative proposals.

(b) This order shall be implemented consistent with applicable law and subject to the availability of appropriations.

(c) This order is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents, or any other person.



THE WHITE HOUSE,
April 10, 2019.

[FR Doc. 2019–07645
4–12–19; 11:15 am]
Billing code 3295–F9–P

Presidential Documents

Executive Order 13868 of April 10, 2019

Promoting Energy Infrastructure and Economic Growth

By the authority vested in me as President by the Constitution and the laws of the United States of America, it is hereby ordered as follows:

Section 1. *Purpose.* The United States is blessed with plentiful energy resources, including abundant supplies of coal, oil, and natural gas. Producers in America have demonstrated a remarkable ability to harness innovation and to cost-effectively unlock new energy supplies, making our country a dominant energy force. In fact, last year the United States surpassed production records set nearly 5 decades ago and is in all likelihood now the largest producer of crude oil in the world. We are also the world's leading producer of natural gas, and we became a net exporter in 2017 for the first time since 1957. The United States will continue to be the undisputed global leader in crude oil and natural gas production for the foreseeable future.

These robust energy supplies present the United States with tremendous economic opportunities. To fully realize this economic potential, however, the United States needs infrastructure capable of safely and efficiently transporting these plentiful resources to end users. Without it, energy costs will rise and the national energy market will be stifled; job growth will be hampered; and the manufacturing and geopolitical advantages of the United States will erode. To enable the timely construction of the infrastructure needed to move our energy resources through domestic and international commerce, the Federal Government must promote efficient permitting processes and reduce regulatory uncertainties that currently make energy infrastructure projects expensive and that discourage new investment. Enhancing our Nation's energy infrastructure, including facilities for the transmission, distribution, storage, and processing of energy resources, will ensure that our Nation's vast reserves of these resources can reach vital markets. Doing so will also help families and businesses in States with energy constraints to access affordable and reliable domestic energy resources. By promoting the development of new energy infrastructure, the United States will make energy more affordable, while safeguarding the environment and advancing our Nation's economic and geopolitical advantages.

Sec. 2. *Policy.* It is the policy of the United States to promote private investment in the Nation's energy infrastructure through:

(a) efficient permitting processes and procedures that employ a single point of accountability, avoid duplicative and redundant studies and reviews, and establish clear and reasonable timetables;

(b) regulations that reflect best practices and best-available technologies;

(c) timely action on infrastructure projects that advance America's interests and ability to participate in global energy markets;

(d) increased regulatory certainty regarding the development of new energy infrastructure;

(e) effective stewardship of America's natural resources; and

(f) support for American ingenuity, the free market, and capitalism.

Sec. 3. *Water Quality Certifications.* Section 401 of the Clean Water Act (33 U.S.C. 1341) provides that States and authorized tribes have a direct role in Federal permitting and licensing processes to ensure that activities

subject to Federal permitting requirements comply with established water quality requirements. Outdated Federal guidance and regulations regarding section 401 of the Clean Water Act, however, are causing confusion and uncertainty and are hindering the development of energy infrastructure.

(a) The Administrator of the Environmental Protection Agency (EPA) shall consult with States, tribes, and relevant executive departments and agencies (agencies) in reviewing section 401 of the Clean Water Act and EPA's related regulations and guidance to determine whether any provisions thereof should be clarified to be consistent with the policies described in section 2 of this order. This review shall include examination of the existing interim guidance entitled, ''Clean Water Act Section 401 Water Quality Certification: A Water Quality Protection Tool for States and Tribes'' (Section 401 Interim Guidance). This review shall also take into account federalism considerations underlying section 401 of the Clean Water Act and shall focus on:

(i) the need to promote timely Federal-State cooperation and collaboration;

(ii) the appropriate scope of water quality reviews;

(iii) types of conditions that may be appropriate to include in a certification;

(iv) expectations for reasonable review times for various types of certification requests; and

(v) the nature and scope of information States and authorized tribes may need in order to substantively act on a certification request within a prescribed period of time.

(b) Upon completion of the consultation and review process described in subsection (a) of this section, but no later than 60 days after the date of this order, the Administrator of the EPA shall:

(i) as appropriate and consistent with applicable law, issue new guidance to States and authorized tribes to supersede the Section 401 Interim Guidance to clarify, at minimum, the items set forth in subsection (a) of this section; and

(ii) issue guidance to agencies, consistent with the policies outlined in section 2 of this order, to address the items set forth in subsection (a) of this section.

(c) Upon completion of the consultation and review process described in subsection (a) of this section, but no later than 120 days after the date of this order, the Administrator of the EPA shall review EPA's regulations implementing section 401 of the Clean Water Act for consistency with the policies set forth in section 2 of this order and shall publish for notice and comment proposed rules revising such regulations, as appropriate and consistent with law. The Administrator of the EPA shall finalize such rules no later than 13 months after the date of this order.

(d) Upon completion of the processes described in subsection (b) of this section, the Administrator of the EPA shall lead an interagency review, in coordination with the head of each agency that issues permits or licenses subject to the certification requirements of section 401 of the Clean Water Act (401 Implementing Agencies), of existing Federal guidance and regulations for consistency with EPA guidance and rulemaking. Within 90 days of completion of the processes described in subsection (b) of this section, the heads of the 401 Implementing Agencies shall update their respective agencies' guidance. Within 90 days of completion of the processes described in subsection (c) of this section, if necessary, the heads of each 401 Implementing Agency shall initiate a rulemaking to ensure their respective agencies' regulations are consistent with the rulemaking described in subsection (c) of this section and with the policies set forth in section 2 of this order.

Sec. 4. *Safety Regulations.* (a) The Department of Transportation's safety regulations for Liquefied Natural Gas (LNG) facilities, found in 49 CFR part 193 (Part 193), apply uniformly to small-scale peakshaving, satellite, temporary, and mobile facilities, as well as to large-scale import and export terminals. Driven by abundant supplies of domestic natural gas, new LNG

export terminals are in various stages of development, and these modern, large-scale liquefaction facilities bear little resemblance to the small peakshaving facilities common during the original drafting of Part 193 nearly 40 years ago. To achieve the policies set forth in subsection 2(b) of this order, the Secretary of Transportation shall initiate a rulemaking to update Part 193 and shall finalize such rulemaking no later than 13 months after the date of this order. In developing the proposed regulations, the Secretary of Transportation shall use risk-based standards to the maximum extent practicable.

(b) In the United States, LNG may be transported by truck and, with approval by the Federal Railroad Administration, by rail in United Nations portable tanks, but Department of Transportation regulations do not authorize LNG transport in rail tank cars. The Secretary of Transportation shall propose for notice and comment a rule, no later than 100 days after the date of this order, that would treat LNG the same as other cryogenic liquids and permit LNG to be transported in approved rail tank cars. The Secretary shall finalize such rulemaking no later than 13 months after the date of this order.

Sec. 5. *Environment, Social, and Governance Issues; Proxy Firms; and Financing Energy Projects Through the United States Capital Markets.* (a) The majority of financing in the United States is conducted through its capital markets. The United States capital markets are the deepest and most liquid in the world. They benefit from decades of sound regulation grounded in disclosure of information that, under an objective standard, is material to investors and owners seeking to make sound investment decisions or to understand current and projected business. As the Supreme Court held in TSC Industries, Inc. v. Northway, Inc., 426 U.S. 438, 449 (1976), information is ''material'' if ''there is a substantial likelihood that a reasonable shareholder would consider it important.'' Furthermore, the United States capital markets have thrived under the principle that companies owe a fiduciary duty to their shareholders to strive to maximize shareholder return, consistent with the long-term growth of a company.

(b) To advance the principles of objective materiality and fiduciary duty, and to achieve the policies set forth in subsections 2(c), (d), and (f) of this order, the Secretary of Labor shall, within 180 days of the date of this order, complete a review of available data filed with the Department of Labor by retirement plans subject to the Employee Retirement Income Security Act of 1974 (ERISA) in order to identify whether there are discernible trends with respect to such plans' investments in the energy sector. Within 180 days of the date of this order, the Secretary shall provide an update to the Assistant to the President for Economic Policy on any discernable trends in energy investments by such plans. The Secretary of Labor shall also, within 180 days of the date of this order, complete a review of existing Department of Labor guidance on the fiduciary responsibilities for proxy voting to determine whether any such guidance should be rescinded, replaced, or modified to ensure consistency with current law and policies that promote long-term growth and maximize return on ERISA plan assets.

Sec. 6. *Rights-of-Way Renewals or Reauthorizations.* The Secretary of the Interior, the Secretary of Agriculture, and the Secretary of Commerce approve rights-of-way for energy infrastructure through lands owned by or within the jurisdiction or control of the United States. Energy infrastructure rights-of-way grants, leases, permits, and agreements routinely include sunset provisions. Operating facilities in expired rights-of-way creates legal and operational uncertainties for owners and operators of energy infrastructure. To achieve the policies set forth in section 2 of this order, the Secretaries of the Interior, Agriculture, and Commerce shall:

(a) develop a master agreement for energy infrastructure rights-of-way renewals or reauthorizations; and

(b) within 1 year of the date of this order, initiate renewal or reauthorization processes for all expired energy rights-of-way grants, leases, permits, and

agreements, as determined to be appropriate by the applicable Secretary and to the extent permitted by law.

Sec. 7. *Reports on the Barriers to a National Energy Market.* (a) Within 180 days of the date of this order, the Secretary of Transportation, in consultation with the Secretary of Energy, shall submit a report to the President, through the Assistant to the President for Economic Policy, regarding the economic and other effects caused by the inability to transport sufficient quantities of natural gas and other domestic energy resources to the States in New England and, as the Secretary of Transportation deems appropriate, to States in other regions of the Nation. This report shall assess whether, and to what extent, State, local, tribal, or territorial actions have contributed to such effects.

(b) Within 180 days of the date of this order, the Secretary of Energy, in consultation with the Secretary of Transportation, shall submit a report to the President, through the Assistant to the President for Economic Policy, regarding the economic and other effects caused by limitations on the export of coal, oil, natural gas, and other domestic energy resources through the west coast of the United States. This report shall assess whether, and to what extent, State, local, tribal, or territorial actions have contributed to such effects.

Sec. 8. *Report on Intergovernmental Assistance.* State and local governments play a vital role in supporting energy infrastructure development through various transportation, housing, and workforce initiatives, and through other policies and expenditures. The Federal Government is, in many cases, well positioned to provide intergovernmental assistance to State and local governments. To achieve the policies set forth in section 2 of this order, the heads of agencies shall review existing authorities related to the transportation and development of domestically produced energy resources and, within 30 days of the date of this order, report to the Director of the Office of Management and Budget and the Assistant to the President for Economic Policy on how those authorities can be most efficiently and effectively used to advance the policies set forth in this order.

Sec. 9. *Report on Economic Growth of the Appalachian Region.* Within 180 days of the date of this order, the Secretary of Energy, in consultation with the heads of other agencies, as appropriate, shall submit a report to the President, through the Assistant to the President for Economic Policy, describing opportunities, through the Federal Government or otherwise, to promote economic growth of the Appalachian region, including growth of petrochemical and other industries. This report also shall assess methods for diversifying the Appalachian economy and promoting workforce development.

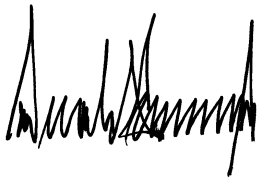
Sec. 10. *General Provisions.* (a) Nothing in this order shall be construed to impair or otherwise affect:

(i) the authority granted by law to an executive department or agency, or the head thereof; or

(ii) the functions of the Director of the Office of Management and Budget relating to budgetary, administrative, or legislative proposals.

(b) This order shall be implemented consistent with applicable law and subject to the availability of appropriations.

(c) This order is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents, or any other person.



THE WHITE HOUSE,
April 10, 2019.

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