

DEPARTMENT OF THE INTERIOR**Bureau of Safety and Environmental Enforcement****30 CFR Part 250**

[Docket ID: BSEE–2017–0008; 189E1700D2 ET1SF0000.PSB000 EEEE500000]

RIN 1014–AA37

Oil and Gas and Sulphur Operations on the Outer Continental Shelf—Oil and Gas Production Safety Systems**AGENCY:** Bureau of Safety and Environmental Enforcement, Interior.**ACTION:** Final rule.

SUMMARY: The Bureau of Safety and Environmental Enforcement (BSEE) is amending the regulations regarding oil and natural gas production safety systems. After a thorough reexamination of the current regulations, and consideration of recent experiences from implementation of those regulations and of public comments on the proposed rule to amend those regulations, BSEE is revising or removing certain regulatory provisions that create unnecessary burdens on stakeholders, and clarifying other provisions, while ensuring safety and environmental protection.

DATES: This rule becomes effective on December 27, 2018.

The incorporation by reference of certain publications listed in the rule is approved by the Director of the Federal Register as of December 27, 2018.

ADDRESSES:

Rulemaking documents and public comments on the proposed rule: You may review the rulemaking documents, including National Environmental Policy Act (NEPA) documents and public comments submitted on the proposed rule, by accessing the Federal eRulemaking Portal: <http://www.regulations.gov>. In the entry entitled, “Enter Keyword or ID,” enter “BSEE–2017–0008,” then click search. Follow the instructions to search public comments and view supporting and related materials available for this rulemaking.

Documents incorporated by reference: BSEE provides members of the public with website addresses where they may access standards incorporated by reference in BSEE’s regulations for viewing, sometimes for free and sometimes for a fee. In particular, the American Petroleum Institute (API) voluntarily makes available all API standards that are safety-related and that are incorporated into Federal regulations for free viewing by the

public online in the Incorporation by Reference Reading Room on API’s website at: <http://publications.api.org>.¹ In addition to the free online availability of these standards for viewing on API’s website, hardcopies and printable versions are available for purchase from API. The API website address to purchase standards is: <http://www.api.org/publications-standards-and-statistics/publications/government-cited-safety-documents>.

BSEE can make copies of incorporated standards available for review at BSEE’s office(s) upon advance request. One location where incorporated standards can be available for review is BSEE’s headquarters at 45600 Woodland Road, Sterling, Virginia, 20166. Please email: regs@bsee.gov to make arrangements to review incorporated standards, so BSEE can ensure hard copies of the requested standards are available. BSEE may also make the standards available at its other offices located in: Washington, DC; New Orleans, Louisiana; Houston, Texas; Camarillo, California; and Anchorage, Alaska.

FOR FURTHER INFORMATION CONTACT:

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¹To view these standards online, go to the API publications website at: <http://publications.api.org>. You must then log-in or create a new account, accept API’s “Terms and Conditions,” click on the “Browse Documents” button, and then select the applicable category (e.g., “Exploration and Production”) for the standard(s) you wish to review.

Effects on the Nation’s Energy Supply (E.O. 13211)

A. BSEE Statutory and Regulatory Authority and Responsibilities

BSEE derives its authority primarily from the Outer Continental Shelf Lands Act (OCSLA), 43 U.S.C. 1331–1356a. Congress enacted OCSLA in 1953, significantly amended it in 1978, and subsequently amended specific provisions. As amended, OCSLA authorizes the Secretary of the Interior (Secretary) to lease the Outer Continental Shelf (OCS) for resource development in a way that makes it available for expeditious and orderly development, consistent with national needs and subject to environmental safeguards. Among other things, Congress established a policy to provide for orderly and expeditious development of oil and natural gas resources of the OCS to meet national economic and energy policy and which may serve to assure national security and reduce dependence on foreign sources. OCSLA also states that, among other purposes, OCS oil and gas resources should be managed in a way that balances orderly development with protection of the environment. The Secretary has delegated authority to perform certain of these functions to BSEE.

To carry out its responsibilities, BSEE regulates offshore oil and gas operations to ensure that operations are safe and environmentally responsible. See 30 CFR 250.101(b)(2). BSEE’s regulatory program covers a wide range of operations, including drilling, completion, workover, production, pipeline, and decommissioning operations; and associated facilities, such as mobile offshore drilling units (MODUs) and production platforms. See 30 CFR part 250. BSEE also conducts onsite inspections to assure compliance with regulations, lease terms, and approved plans and permits. Detailed information concerning BSEE’s regulations and guidance to the offshore oil and gas industry is on BSEE’s website at: <http://www.bsee.gov/Regulations-and-Guidance/index>.

B. Summary of the Rulemaking

This final rule amends and updates the regulations in 30 CFR part 250, subpart H, Oil and Gas Production Safety Systems (subpart H). This rule supports the Administration’s objective of facilitating energy dominance by encouraging increased domestic oil and gas production and reducing unnecessary burdens on stakeholders, while ensuring safety and environmental protection.

Since 2010, the Department of the Interior (Department) has promulgated several rulemakings (e.g., Safety and Environmental Management Systems (SEMS) I and II final rules (75 FR 63610, October 15, 2010; 78 FR 20423, April 5, 2013), the final Safety Measures rule (77 FR 50856, August 22, 2012), and the Blowout Preventer Systems and Well Control final rule (the “2016 Well Control Rule” or the “2016 WCR”)² to improve worker safety and environmental protection. On September 7, 2016, the Department published a Production Safety Systems final rule substantially revising subpart H (81 FR 61834) (2016 PSSR). That final rule addressed issues such as production safety systems, subsurface safety devices, and safety device testing. These systems play a critical role in protecting workers and the environment. Most of the provisions of that rulemaking took effect on November 7, 2016. Since that time, BSEE has become aware that certain provisions in that rulemaking created potentially unduly burdensome requirements for oil and natural gas production operators on the OCS, without meaningfully increasing safety of the workers or protection of the environment. During implementation of the 2016 PSSR, BSEE reassessed a number of the provisions in subpart H and determined that it could revise some provisions to reduce or eliminate some of the concerns expressed by the operators, thereby reducing the regulatory burden, while ensuring safety and protection of the environment.

On December 29, 2017, BSEE published in the **Federal Register** a proposed rule to revise certain provisions in the subpart H regulations (82 FR 61703) (the “proposed rule”) and to solicit comments on several additional issues. After consideration of the public comments on the proposed rule, BSEE is publishing this final rule, which revises or otherwise addresses the current requirements as follows:

- Updates the incorporation of certain standards referenced in subpart H;
- Adds gas lift shut down valves (GLSDVs) to the list of safety and pollution prevention equipment (SPPE);
- Revises requirements for SPPE by replacing the requirement for independent third parties to certify that each device will function in the most extreme conditions to which it will be exposed with requirements for device design testing, documentation of the process the operator used to ensure the device is designed to function as required, and independent third party

review and certification of a device if the device is moved to a different location³;

- Clarifies equipment failure reporting requirements;
- Clarifies and revises some of the production safety system design requirements, including revising the requirements for professional engineer (PE) stamping, revising the requirements for piping schematics, simplifying the requirements for electrical system information, revising the requirement for operators to provide certain documents to BSEE, and clarifying when operators must update existing documents;
- Clarifies requirements for atmospheric vessels containing Class I liquids;
- Clarifies requirements for inspection of the fire tube for tube-type heaters;
- Clarifies the requirement for notifying the BSEE District Manager before commencing production; and
- Makes other conforming changes to ensure consistency within the regulations and makes other minor edits.

C. Recent Executive and Secretary’s Orders

Since the start of 2017, the President issued several Executive Orders (E.O.) that necessitated the review of BSEE’s rules. On January 30, 2017, the President issued E.O. 13771, entitled, “Reducing Regulation and Controlling Regulatory Costs” (82 FR 9339), which requires Federal agencies to take proactive measures to reduce the costs associated with complying with Federal regulations.

On March 28, 2017, the President issued E.O. 13783, entitled, “Promoting Energy Independence and Economic Growth” (82 FR 16093). This E.O. directed Federal agencies to review all existing regulations and other agency actions and, ultimately, to suspend, revise, or rescind any regulations or actions that unnecessarily burden the development of domestic energy resources beyond the degree necessary to protect the public interest or otherwise comply with the law.

On April 28, 2017, the President issued E.O. 13795, entitled, “Implementing an America-First Offshore Energy Strategy” (82 FR 20815). This E.O. directed the Secretary of the Interior to reconsider the 2016 Well Control Rule adopted in April 2016 and to take appropriate action to

“revise any related rules” for consistency with E.O. 13795’s stated policy “to encourage energy exploration and production, including on the Outer Continental Shelf, in order to maintain the Nation’s position as a global energy leader and foster energy security and resilience for the benefit of the American people, while ensuring that any such activity is safe and environmentally responsible.”

To further implement E.O. 13783, the Secretary issued Secretary’s Order (S.O.) 3349, entitled, “American Energy Independence,” on March 29, 2017. The S.O. directed DOI to review all existing regulations “that potentially burden the development or utilization of domestically produced energy resources.” Similarly, to implement E.O. 13795, the Secretary issued S.O. 3350, entitled, “America-First Offshore Energy Strategy,” on May 1, 2017, which directed BSEE to review the 2016 Well Control Rule and related rulemakings. BSEE interpreted each of these orders to apply to the 2016 PSSR.

As part of its response to E.O.s 13783 and 13795 and to S.O.s 3349 and 3350, BSEE reviewed the regulations in subpart H, as revised by the 2016 PSSR, with a view toward the policy of encouraging energy exploration and production on the OCS, and reducing unnecessary regulatory burdens, while ensuring that any such activity is safe and environmentally responsible. Like the 2016 PSSR, BSEE also focused on offshore oil and gas production technology and operations, including subsea production systems used for production in increasingly deeper waters. This focus is unrelated to well control during well operations. Nevertheless, BSEE carefully analyzed all the provisions in the proposed rule and this final rule and compared them to the 424 recommendations arising from 26 separate reports from 14 different organizations developed in the wake of and in response to the *Deepwater Horizon (DWH)* disaster, and determined that these changes to subpart H will not contradict any of those recommendations, nor will they alter any provision of the 2016 PSSR in a way that would make the result inconsistent with those recommendations. Further, nothing in this final rule will alter any elements of other rules promulgated since *DWH*, including the Drilling Safety Rule (Oct. 2010), SEMS I (Oct. 2010), SEMS II (April 2013), and 2016 WCR (April 2016). BSEE’s review has been thorough and tailored to the task of reducing unnecessary regulatory burdens while ensuring that OCS activity is safe and environmentally responsible.

³ Incorporated standards address the design of SPPE, based on the specific type of device and the conditions where the device will be located.

² See 81 FR 25887 (April 29, 2016).

D. Incorporation by Reference of Industry Standards

In accordance with the National Technology Transfer and Advancement Act, Public Law 104–113 (NTTAA), 15 U.S.C. 3701 *et seq.* (Pub. L. 104–113), and with Office of Management and Budget (OMB) Circular A–119, “Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities,” (rev. Jan. 2016) implementing the NTTAA, BSEE frequently uses standards (*e.g.*, codes, specifications, and recommended practices) that standards development organizations (SDOs) have developed through a consensus process, with input from the oil and gas industry, as a means of establishing requirements for activities on the OCS. The NTTAA charged, with few exceptions, that “all Federal agencies and departments shall use technical standards that are developed or adopted by voluntary consensus standards bodies, using such technical standards as a means to carry out policy objectives or activities determined by the agencies and departments.” BSEE may incorporate these standards into its regulations by reference without republishing the standards in their entirety in regulations. The legal effect of incorporation by reference is that the incorporated standards become regulatory requirements. This incorporated material, like any other regulation, has the force and effect of law. Operators, lessees, and other regulated parties must comply with the documents incorporated by reference in the regulations. BSEE currently incorporates by reference over 100 consensus standards in its regulations. (*See* 30 CFR 250.198.)

The Office of the Federal Register’s (OFR) regulations, at 1 CFR part 51, govern how BSEE and other Federal agencies incorporate documents by reference. Agencies may incorporate a document by reference by publishing in the **Federal Register** the document title, edition, date, author, publisher, identification number, and other specified information. The preamble of the rule must contain a summary of each document incorporated by reference, as well as discuss the ways that the incorporated materials are reasonably available to interested parties and how interested parties can obtain those materials. The Director of the **Federal Register** will approve publication in a final rule of each incorporation by reference that meets the criteria of 1 CFR part 51. The

documents are summarized in section G of this preamble.

When a copyrighted publication is incorporated by reference into BSEE regulations, BSEE is obligated to observe and protect that copyright. BSEE provides website addresses where members of the public may access these standards for viewing, sometimes for free and sometimes for a fee. SDOs decide whether to charge a fee. One such organization, API, provides free online public access to view read only copies of its key industry standards, including a broad range of technical standards. In particular, API voluntarily makes available all API standards that are safety-related and that are incorporated into Federal regulations for free viewing by the public online in the Incorporation by Reference Reading Room on API’s website at: <http://publications.api.org>.⁴ In addition to the free online availability of these standards for viewing on API’s website, hardcopies and printable versions are available for purchase from API. The API website address to purchase standards is: <http://www.api.org/publications-standards-and-statistics/publications/government-cited-safety-documents>. BSEE also makes copies of incorporated standards available for review at BSEE’s office(s) upon request. Individuals wishing to view standards at a BSEE office may make arrangements by sending an email to: regs@bsee.gov. BSEE may make standards available at their offices in Washington, DC; Sterling, Virginia; New Orleans, Louisiana; Houston, Texas; Camarillo, California; and Anchorage, Alaska.

BSEE recognizes that there may be additional opportunities to make standards more accessible and agrees to work with OMB and the OFR to explore potential approaches to improve public access to standards and to information about the standards.

In addition to the legal requirement under the NTTAA for Federal agencies to use standards, there are a number of benefits to incorporating these documents into the regulations. Standards increase consistency for employee training, equipment compatibility, processes, and testing during operations. Standards help ensure that operators and their contractors take proper precautions during operations; resulting in safety performance improvements through the

reduction of lost time from injuries and incidents, work environment safety standards, proper training, product failure reporting, quality control and assurance requirements, addressing safety issues, and improved communications between user and supplier. Global adoption of standards is a compelling reason for the most updated editions to be part of regulatory frameworks since they drive consistency, promote competition, and reduce the burden of compliance.

E. Overview of Comments on the Proposed Rule

In response to the proposed rule, BSEE received 733 separate sets of comments, including some comments that had a total of over 60,000 signatures attached to the comments. BSEE received comments from a wide range of stakeholders, including industry trade groups and individual companies, State and local governments, Tribal authorities, members of the U.S. Congress, environmental groups, SDOs, and private citizens. All comments are posted at the Federal Rulemaking Portal: <http://www.regulations.gov>. To access the comments, enter “BSEE–2017–0008” in the search box. BSEE reviewed all comments submitted.

Commenters raised issues on a number of topics, including general issues, section-by-section comments, and comments on certain additional issues on which BSEE solicited comments, including:

- Potential Revisions to § 250.107(c) Best Available and Safest Technology (BAST);
- Potential Revisions to § 250.198 Documents incorporated by reference;
- Extension of Compliance Deadline for Pressure Safety Valve (PSV) Testing Under § 250.880 Production safety system testing;
- Potential Revisions Based on the Investigation of the Explosion and Fatality on West Delta Block 105 Platform E; and
- Implementation of This Rulemaking.

Some commenters opposed any changes to the existing production safety regulations, while other commenters supported most of the proposed revisions. Many commenters seemed to confuse the 2016 PSSR and BSEE’s December 2017 proposed rule with the 2016 WCR. The comments indicate that those commenters apparently assumed that the proposed rule involved revisions to the 2016 WCR, which was not the case.

⁴To view these standards online, go to the API publications website at: <http://publications.api.org>. You must then log-in or create a new account, accept API’s “Terms and Conditions,” click on the “Browse Documents” button, and then select the applicable category (*e.g.*, “Exploration and Production”) for the standard(s) you wish to review.

F. Discussion of General Issues Raised by Commenters

Requests To Extend the Comment Period

Rulemaking “Technically Complex”

Comment: Prior to the proposed rule’s public comment deadline (January 29, 2018), BSEE received several written requests to extend that comment period, most of which requested a 60-day extension. One such request provided no explanation for the requested extension, except to state that the proposed rule was “technically complex.” Similarly, another request asserted that the proposed rule was so “important in nature” that a 90-day comment period would be more reasonable.

Response: After considering all the extension requests, BSEE determined that no extension was necessary. Although one requester stated that the proposed rule was “technically complex,” that entity provided no examples and identified no aspects of the proposed rule that it considered so complex that it could not submit meaningful comments by the close of the comment period. Similarly, the entity that suggested that a 90-day comment period would be more reasonable due to the importance of the proposed rule provided no examples of any specific proposed provisions that required more time to analyze, even though that request was submitted almost one month after publication of the proposed rule. Under the circumstances, BSEE does not believe that these entities’ requests provided justification for extending the comment period.⁵

Volume of Standards To Review

Comment: Two entities—offshore oil and gas industry organizations—asserted that the comment period was not long enough for the commenters to analyze and prepare thorough comments on the proposed rule. In particular, those commenters asserted that the number and “volume” of the standards that BSEE proposed to update and incorporate was too large for the requesters to review and comment on in 30 days.

⁵ A different entity submitted a request for an extension on January 29, 2018—the deadline set by the proposed rule for public comment—but did not suggest a specific extension period. In addition, although that request asserted that the proposed rule was “unclear, and in some places contradictory,” it provided no examples to support that assertion. For the reasons previously explained, BSEE does not believe this last-minute request provided a sufficient basis for extending the comment period.

Response: BSEE does not agree with the industry organizations’ suggestion that the updated standards and the one new standard that BSEE proposed to incorporate were “too numerous and too voluminous” to be thoroughly analyzed and understood within the time allowed by the comment period. In fact, one of those industry organizations is the SDO that developed and published 15 out of the 19 standards that BSEE proposed to incorporate. BSEE also notes that the other industry organization is a committee of virtually all of the offshore producing companies and service providers in the Gulf of Mexico, many of whom participated, or had the opportunity to participate, in the development of the relevant standards. In addition, both industry organizations represent companies that have had the opportunity to voluntarily implement those standards, in some cases over the course of many years. Under the circumstances, BSEE does not agree that those extension requests warranted an extension.⁶

Comment Period Inadequate

Comment: One commenter submitted comments on the proposed rule, including an assertion that the comment period was inadequate (although the commenter did not request an extension).

Response: BSEE disagrees. Although this commenter broadly asserted that the proposed rule proposed a “significant number of changes to the regulations that incorporate . . . thousands of pages of technical documents,” it failed to provide any specific examples or other support for its assertion that the comment period was inadequate. After considering this comment, as well as the prior requests for extension of the comment period, BSEE determined that the comment period set by the proposed rule was reasonably adequate for any interested party to submit meaningful comments. BSEE notes that the Administrative Procedure Act (APA), which governs the Federal rulemaking process, does not specify any minimum period for comments on proposed rules. In practice, comment periods of 30 to 60 days are commonplace and 30-day

⁶ Both of the industry organizations and one other entity also suggested that the publication of the proposed rule on December 29, 2017, during the “holiday season,” provided more justification for their requests for more time. BSEE believes that the important reductions in unnecessary burdens on energy production, and the other improvements intended by the proposed rule, warranted BSEE moving forward with the proposed and final rules as expeditiously as practicable, whether or not that entails BSEE or other entities devoting some effort during a holiday season.

comment periods are not uncommon. Moreover, given that the number of substantive changes actually proposed was relatively small, that the provisions to be revised were previously subject to a lengthy rulemaking process that culminated in the 2016 PSSR, and that the need to remove unnecessary burdens on offshore energy production is a high-priority national goal, BSEE believes that the comment period for this proposed rule was reasonable and provided a meaningful opportunity for public participation. This determination is supported by the fact that commenters submitted well over 700 comments, raising a wide variety of issues, by the January 29, 2018, deadline.

Comments Related to Deepwater Horizon Recommendations

Comment: A number of commenters asserted that the proposed rule was inconsistent with recommendations in various reports, including “The National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling” (the Commission or the Commission Report), that were published in the aftermath of the DWH incident. Some commenters asserted that the 2016 PSSR was the agency’s response to the DWH reports’ recommendations and that any changes to this rule would reduce the protections intended by those recommendations. Several commenters also asserted that any changes to the regulations would be arbitrary and capricious.

Response: BSEE disagrees with these comments. The recommendations that the commenters cite come from various reports concerning the DWH incident. Those recommendations primarily addressed problems with well operations (including drilling, completion, workover, and decommissioning operations)—some of which led up to the DWH incident—and suggested ways to reduce risks of other incidents related to well operations. Those commenters apparently assumed, incorrectly, that BSEE developed the 2016 PSSR as a result of the DWH incident and that it was largely based on the Commission’s report.

These commenters evidently confused the 2016 PSSR, which updated production safety systems regulations, with the 2016 WCR, which discussed the recommendations in the DWH reports and implemented, or responded to, many of those recommendations in order to reduce the risk of future well operation-related incidents. The well control requirements established by the 2016 WCR are primarily in 30 CFR part

250, subparts D and G, and include requirements for well operations. By contrast, the production safety systems requirements at issue here apply to production operations and are in subpart H. Well control requirements and production safety requirements apply to different operations and types of equipment and processes. Well control equipment, such as blowout preventers, is used on multiple wells and is often moved from site to site; therefore, it must function properly in any conditions that may be encountered. By contrast, production safety equipment must function properly in the specific conditions applicable within the production system on a particular facility, as informed by data that were gathered during the drilling and completion operations.

While the 2016 WCR was responsive to the Commission's and other *DWH* reports on well operations, BSEE did not intend the 2016 final PSSR and the 2017 proposed PSSR revisions to directly respond to the Commission's report or other *DWH* reports; nor did the 2016 PSSR and 2017 proposed rule refer to the *DWH* reports. In fact, the impetus for the 2016 PSSR was unrelated to well control during well operations; rather, that rule was focused on the need to address changes in offshore oil and gas production technology and operations, including subsea production systems used for production in increasingly deeper waters. Prior production safety systems regulations did not address subsea developments in deepwater production. See 81 FR 61834.

Accordingly, the commenters' concerns that the proposed revisions to the 2016 PSSR would be inconsistent with, and significantly diminish the protections intended by, the *DWH* reports' recommendations are not justified. In any case, as previously discussed, BSEE has nevertheless carefully analyzed all the provisions in this rule, and determined that the changes made will not contradict any of the recommendations from the *DWH* reports, nor will they alter the regulations in a way that would make them inconsistent with those recommendations.

Further, the commenters' suggestions that any changes to the 2016 PSSR would be "arbitrary and capricious" are conclusory in nature, and the commenters have not provided support for that conclusion. The record of this rulemaking shows that the proposed and now final revisions to the PSSR are not arbitrary or capricious. First, as already explained, the commenters' underlying assumption that BSEE intended for the 2016 PSSR to

implement the *DWH* recommendations is not accurate. Second, as discussed in the 2017 proposed rule, many of the proposed changes were based on experience from implementation of the 2016 PSSR. See, e.g., 82 FR 61704, 61709. Also, operators raised questions about the 2016 PSSR that BSEE has addressed in Regulatory Interpretations on its website, and BSEE is using this rulemaking to address issues raised in some of those questions.⁷ In addition, for all the reasons described elsewhere in this notice, BSEE has determined that the changes to the 2016 PSSR reflected in this final rule will reduce unnecessary burdens or provide needed clarifications, while still ensuring safety and environmental protection.

Similarly, BSEE disagrees with one commenter's suggestion that BSEE should not make changes to the 2016 PSSR simply because the "SUMMARY" statement in that final rule said that it was "necessary to improve . . . safety, environmental protection, and regulatory oversight of critical equipment involving productions safety systems" (emphasis added). While that statement was accurate as to the 2016 PSSR as a whole, it did not indicate that every specific provision in that extensive rule was essential in its existing form to ensuring safety and environmental protection, or would never be reviewed or revised in light of subsequent events or new information. Neither BSEE nor any other agency can predict, at the time it promulgates a rule, whether or not future circumstances will warrant any revisions. In fact, BSEE periodically reviews all of its regulations and makes revisions when necessary and appropriate. And, for the reasons explained elsewhere in this notice, BSEE has determined that some specific revisions to the 2016 PSSR are appropriate and that those revisions will achieve the goals of energy production and safety and environmental protection.

Timing of Revisions to Subpart H

Comment: One commenter suggested that BSEE cannot justify making any revisions to the 2016 PSSR "barely a year" after that rule took effect.

Response: BSEE does not agree that it is too soon to make any changes to the

2016 PSSR. The final 2016 PSSR was published in September 2016 and took effect on November 7, 2016, more than 17 months ago. As stated in the proposed rule (see 82 FR 61704–61705) and elsewhere in this final rule, soon after the 2016 PSSR was issued, BSEE began receiving requests from the regulated industry to clarify various provisions and which raised other concerns with the rule, and several of the proposed (and now final) revisions to the 2016 PSSR are intended to clarify those provisions or address those concerns. It is common practice, especially in complex rulemakings, for an agency to become aware of unforeseen confusion or other problems with a final rule after it has been published and to revise the final rule as soon as practicable to clarify the requirements or otherwise resolve unanticipated concerns. In this case, over 17 months have passed since the 2016 PSSR was promulgated, and BSEE's experiences during that time period demonstrate that it is not too soon to make appropriate corrections to that rule.

Similarly, as explained in the proposed rule, by E.O.s 13783 and 13795, as well as S.O.s 3349 and 3350, issued in early 2017, obligated BSEE to review existing regulations (which include the 2016 PSSR) to determine whether it unnecessarily burdened exploration, development, or production of energy resources, and whether it would be appropriate to revise the rules to reduce those burdens while still ensuring that such activities are safe and environmentally responsible. See *id.* The time that has already passed since the 2016 PSSR was published and took effect is more than adequate for BSEE to have completed that review.

Review and Certification by Independent Third-Parties and Professional Engineers (PEs)

Comment: A number of commenters expressed concern that the proposed (*i.e.*, proposed §§ 250.802 and 250.842) elimination of third-party certification of SPPE and reduction in the number of safety system design documents (*e.g.*, drawings and diagrams) required to be certified and stamped by a registered PE would significantly reduce safety and environmental protection.

Response: BSEE disagrees. Subpart H continues to impose numerous requirements, including provisions in the standards incorporated by reference, that effectively provide multiple layers of review to ensure safety and environmental protection in the design, installation, and testing of certain

⁷ See <https://www.bsee.gov/guidance-and-regulations/regulations/regulatory-interpretations#ssr>. Examples of such issues include requirements in the 2016 PSSR for boarding shut-down valves (BSDVs), deferred compliance dates, production notification, effective date and annual inspection/testing requirements, and alternate compliance requests and/or departures (extensions) for PSV testing.

aspects of production safety systems, including the SPPE. As explained earlier in this notice, although this final rule reduces the number of provisions that require third-party or PE review and certification, BSEE expects those procedural changes will continue to ensure safety and environmental protection, especially because of the other, more substantive, regulatory requirements applicable to safety equipment design, function, maintenance, and testing that are being retained or enhanced. BSEE carefully considered which documents are most critical to these operations and which documents provide information to support those critical documents. In addition, the regulations currently contain extensive testing provisions for SPPE and other production system components (*see* § 250.880), to ensure the devices will function when needed. These provisions clearly state actions that the operator must take if a device fails a test, including repairing or replacing devices. These requirements remain unchanged in this final rule.

Specifically, several of the standards incorporated into subpart H (*e.g.*, ANSI/API Spec. 6A and ANSI/API Spec. 14A) set design criteria for SPPE, based on the type of SPPE, and require most types of SPPE to be design-tested by an independent third-party testing facility. In addition, the following provisions of the regulations effectively provide supplemental layers of review: (1) Existing § 250.801(a) through (c) requires use of SPPE that is manufactured and marked pursuant to a quality assurance program that satisfies ANSI/API Spec. Q1 or another equivalent quality assurance program approved by BSEE; (2) existing § 250.880 sets detailed production safety system testing criteria, and mandates that SPPE failing to meet the testing criteria must be repaired or replaced; and (3) § 250.842(a), as amended, will still require PE approval of modifications to production safety systems (required by § 250.842(c)(2)), while new § 250.842(b) will require additional design documents to be developed, maintained, and provided to BSEE upon request. For all of these reasons, BSEE determined that the final revisions to §§ 250.802 and 250.842, which reduce unnecessary burdens on operators, will ensure safety and environmental protection.

Comments on Risk-Based Approaches

Comment: Several commenters stated that BSEE should implement more “risk-based” approaches to regulation of industry.

Response: BSEE agrees that risk-based approaches are often an appropriate way to develop effective regulatory programs. However, no changes to the existing regulations are needed for BSEE to implement certain risk-based programs. For example, BSEE is currently developing ways to deploy inspection resources to focus on operations with higher rates of safety events, equipment failure, or incidents of non-compliance (INCs).

Risk-based inspections complement BSEE’s existing National Safety Inspection Program under OCSLA, which requires BSEE to conduct annual scheduled inspections and periodic unannounced inspections on all OCS oil and gas facilities. Risk-based inspection approaches evaluate operational and performance information, such as data from prior inspections and failure reporting, to identify those facilities and operations that may pose a higher likelihood of an unsafe event or of more severe consequences from such an event. BSEE uses this data to manage its inspector force and to target their work to address production facilities with higher risks of safety incidents, equipment failure, or INCs. Accordingly, BSEE implemented a formal risk-based inspection program in 2018 following pilot testing.

The program is comprised of two categories of risk-based inspections—a “facility-based” category targeting specific production facilities identified as higher-risk, and a “performance-based” category targeting specific operations or equipment across multiple facilities. Facility-based risk inspections employ a quantitative model and additional qualitative evaluation of operational and performance information to identify higher-risk facilities, and inspection protocols are tailored to facility-specific hazards, barriers, and risks. Performance-based risk inspections employ trend analysis of performance indicators, such as incident and INC data, to identify safety issues (*e.g.*, potential gas releases, lifting incidents, and compressor fires) that may pose a risk at multiple facilities; thus, those inspection protocols narrowly focus on the identified safety issue. BSEE expects to continue to develop and refine the risk-based inspection program over time.

Comments on Failure Reporting

Comment: One commenter suggested that BSEE should modify § 250.803 to require any failed equipment to be immediately shut-in pending replacement with fully functioning, certified SPPE. Where the failed SPPE involves equipment that may be

common to several production facilities, the commenter suggested that BSEE clarify its authority to order the immediate shut-down of all processes or equipment that rely on the failed SPPE until replaced by certified, functioning SPPE.

Response: BSEE disagrees with this comment. The proposed revisions to § 250.803 were not intended to relax requirements for reporting SPPE or safety component failures or the potential for improved safety under those requirements. To the contrary, the final revisions to that section simply clarify the existing provision for reporting of failures to a BSEE designee instead of to BSEE directly. As explained in the preamble of the proposed rule (*see* 82 FR 61710), on October 26, 2016, BSEE designated the Bureau of Transportation Statistics (BTS) to receive SPPE failure reports. As discussed later in this notice (*see* n.17, *infra*), the reporting of SPPE and equipment component failure information to BTS should increase the potential for improving safety by allowing BTS to examine this information in the aggregate and to prepare reports on the aggregate analysis to share with the public, including the regulated industry. In addition, the final rule retains the existing requirement that operators report equipment failures to original equipment manufacturers (OEMs), as well as to BSEE (or BSEE’s designee). By requiring submissions of reports to the OEMs, § 250.803 ensures an opportunity for the industry best-suited to make changes to failed SPPE (*i.e.*, the OEM sources) to address equipment design and performance issues.

BSEE does not believe that the additional measures—for automatic shut-in of individual facilities with a failure or for wide-spread shut-in of production that uses similar SPPE—suggested by a commenter are appropriate or necessary at this time. The testing provisions in existing § 250.880 already require operators to repair and reinstall or replace many key components in production safety equipment (*e.g.*, surface safety valves) if those components fail to function as designed. The final rule retains those requirements. By the nature of the design and function of the production system and the regulatory requirements for that system, multiple barriers must be used throughout the production system. Multiple barriers are used in the production system to prevent the release of hydrocarbons; these include the SPPE that are required under § 250.801 (*e.g.*, the various valves that can be shut in, if needed, to discontinue production).

The existence of multiple barriers generally decreases the need for automatic shut-in every time a single piece of equipment fails. In addition, BSEE already requires that any non-certified valve that requires offsite repair, re-manufacturing, or any hot work (such as welding) must be replaced with a certified valve as required by § 250.801. In any event, BSEE has authority under existing § 250.107(d) to order equipment repairs or replacement in order to ensure compliance with the regulations, and to issue orders to shut-in operations of a component or facility when appropriate to prevent threats of serious or immediate harm. In light of these existing protections, BSEE does not believe that any additional requirements to automatically shut-in the failed equipment, or additional authority for BSEE to order more widespread shut-ins, are needed.

BOEM's Proposed 2019–2024 National OCS Leasing Program

Comment: A number of comments addressed provisions of the Bureau of Ocean Energy Management (BOEM) draft proposed 2019–2024 National OCS Leasing Program (Leasing Program). Some comments stated that the proposal in the Leasing Program to expand OCS leasing into additional geographic areas would magnify any reduction in safety and environmental protection resulting from the proposed revisions to the PSSR.

Response: The proposed Leasing Program is a separate action by BOEM, which is a separate agency from BSEE within the Department, and was not addressed in the 2017 proposed PSSR. The Leasing Program specifies the size, timing, and location of potential leasing activity that the Secretary determines will best meet national energy needs for the five-year period under consideration. The Draft Proposed Program, the first of three stages of developing the Leasing Program for 2019–2024, was released on January 4, 2018, with a 60-day comment period that ended on March 9, 2018. See BOEM's website, www.boem.gov/National-Program, for additional details. There will be additional opportunities for public review and comment on the Leasing Program at later stages of its development. Thus, any concern the commenters may have about the potential impact that an expansion of the Leasing Program might have on the level of safety and environmental protection provided by the revised PSSR is premature and speculative at this time.

Prioritizing Safety and Environmental Protection

Comments: Several commenters stated that OCSLA requires BSEE to prioritize “environmental safeguards” among other goals identified in the statute and that section 3 of OCSLA (43 U.S.C. 1332(3)) requires BSEE to ensure that regulated activities are “safe and environmentally responsible.” Some commenters also stated that BSEE is required by 43 U.S.C 1802(2)(B) to “balance orderly energy resource development with [environmental] protection.” The commenters suggested that some or all of the proposed changes (e.g., revisions to independent third-party certification of SPPE; incorporation by reference of industry standards) to the existing rule would not comply with these congressional policy declarations.

Response: BSEE agrees that Congress intended that development and production of offshore energy resources should be carried out in a safe and environmentally protective manner. However, BSEE disagrees with the commenters' assertion that the proposed rule (or this final rule) is inconsistent with the policies embodied in OCSLA at 43 U.S.C. 1332(3) and 1802(2)(B). Although some of the commenters suggested that environmental or safety protection must be the overriding—or even the exclusive—goal of all agency actions under OCSLA, these commenters failed to acknowledge that section 1332 also states the principle that the OCS should be managed to ensure “expeditious and orderly development [of OCS resources] . . . in a manner . . . consistent with competition and other national needs” (See 43 U.S.C. 1332(3)). Similarly, the commenters failed to acknowledge that 43 U.S.C. 1802 specifically states that the Department should manage OCS oil and gas resources “expedite[] exploration and development of the . . . [OCS] in order to achieve national economic and energy policy goals, assure national security, reduce dependence on foreign sources, and maintain a favorable balance of payments.” (See 43 U.S.C. 1802(1).)⁸ Moreover, despite the commenter's assertions, sections 1332 and 1802(2)

primarily relate to the way that the Department manages oil and gas resources at the National Program and lease sale stages of OCS development and do not expressly mandate how BSEE exercises its authority to issue safety regulations. More directly relevant to this rulemaking, however, are the specific provisions of OCSLA that authorize the Secretary to regulate activities on the OCS, which contain broad grants of discretion to issue regulations and do not contain any specific limitation that would prevent BSEE from eliminating undue burdens while still ensuring the safety of operations overall.

Although the commenters may disagree with how BSEE has balanced those statutory principles and goals, the difficult and complex task of balancing those policies is committed to BSEE's discretion and expert judgment. And for all the reasons discussed in the proposed rule and in this notice, BSEE has determined that the proposed revisions to subpart H (including those singled out by these commenters), as finalized in this rule, will reduce unnecessary regulatory burdens while ensuring safe and environmentally responsible operations on the OCS.

In addition, BSEE notes that subpart H, as a whole, ensures safety and environmental protection safeguards at every stage of the production process, including with regard to: Design and approval of safety equipment and safety systems; installation of such equipment and systems at production facilities; personnel safety device training; continuous maintenance, field testing, and reporting of failures and problems to BSEE and manufacturers; equipment repair/removal/replacement, when needed, to ensure ongoing functionality; and shut-in, shutdown, and emergency procedures to deal with potential and impending risks. See, e.g., §§ 250.837, 250.842, 250.855, 250.880(b) and (c), 250.891.

Moreover, many of the specific requirements that apply at these stages of production, especially during production operations, are intended to prevent harm to safety or the environment. For example, if the required SPPE fails, the default setting for the valves is to fail in “safe mode”; in most cases, that is the “closed” position, thus preventing the release of hydrocarbons within the production system and limiting the impact of equipment failures. In addition, the SPPE in production safety systems are typically part of a closed system. Thus, when components fail, releasing hydrocarbons, another barrier confines the oil or gas within the system.

⁸ Likewise, 43 U.S.C. 1802(2) makes it Federal policy that to “(2) preserve, protect, and develop oil and natural gas resources in the . . . [OCS] in a manner . . . consistent with the need (A) to make such resources available to meet the Nation's energy needs as rapidly as possible, (B) to balance orderly energy resource development with protection of the human, marine, and coastal environments, (C) to insure the public a fair and equitable return on [OCS] resources . . . and (D) to preserve and maintain free enterprise competition.”

Accordingly, BSEE is confident that the final rule changes, which should reasonably reduce burdens (*e.g.*, by clarifying some provisions and revising or eliminating certain redundant, needlessly burdensome or marginally useful provisions), will continue to ensure safety and environmentally protective operations, especially when viewed in the context of the full suite of protective measures established by subpart H.

General Comments on Incorporation by Reference of Industry Standards

Enforcement of Compliance With Documents Incorporated by Reference

Comment: A number of commenters asserted that, by relying on incorporation by reference of industry standards, the proposed rule would allow the oil and gas industry to regulate itself without government oversight.

Response: BSEE disagrees. As discussed elsewhere in this final rule, BSEE incorporates industry standards by reference in accordance with the requirements of the NTTAA and implementing OMB guidance, OFR regulations (1 CFR part 51), and BSEE's own procedures for incorporation (§ 250.198). The effect of incorporation by reference of an industry standard into the regulations is that the incorporated document becomes a regulatory requirement, *see* § 250.198(a)(3), and, thus, becomes subject to BSEE oversight and enforcement in the same manner as other regulatory requirements. *See* 82 FR 61705. If an SDO later revises a standard that BSEE has previously incorporated in a final rule, the BSEE would need to evaluate the revised standard before incorporating it through rulemaking in the regulations; in other words, industry itself cannot change the regulatory requirements by revising a standard after it has been incorporated in the regulations.

Comment: One commenter asserted that the regulations should state that, where the regulatory requirements are more specific or stringent than incorporated industry standards, the regulations should take precedence.

Response: There is no need for further regulation in response to this comment. The 2016 PSSR already inserted a provision in subpart H—at § 250.800(d)—clarifying that if there is any conflict between the standards incorporated by reference and any other requirements in subpart H, the operator must follow the other subpart H requirements.

Comment: Another commenter suggested that the regulations should state that compliance with incorporated industry standards is mandatory.

Response: BSEE does not agree that such a broad statement needs to be added to the regulations. Existing § 250.198(a)(3) already provides that incorporation of an industry standard into the regulations makes that standard a regulatory requirement. BSEE has repeatedly referred to this principle in the PSSR and other rulemakings. In addition, BSEE concluded in an earlier rulemaking that a blanket statement, such as the one commenter suggested, is not needed, based on the wording of § 250.198(a)(3) and the bureau's reliance on the specific regulatory language of incorporation for each incorporated standard. *See* 77 FR 50855 (August 22, 2012).

Availability of Standards for Public Review

Comment: Some commenters expressed concern about the availability of the standards proposed to be incorporated by reference in the proposed rule. The commenters asserted that the industry standards were not easily accessible or generally available to the public as part of the rulemaking process. Several commenters advocated that BSEE make the full text of any existing or proposed technical standards that are, or will be, incorporated by reference into BSEE's regulations freely available for public download in a searchable format to facilitate public review.

Response: The OFR requires standards incorporated by reference in its regulations to be made "reasonably available" for review by the public. Moreover, BSEE is required by law to describe how those incorporated documents are reasonably available. However, BSEE is not required, and often is not even permitted, to make industry standards downloadable and searchable for the convenience of commenters. Nor does BSEE agree with the suggestion that the standards at issue in the proposed rule were not reasonably available for public review by commenters in preparing their comments.

As discussed in the proposed rule (82 FR 61705), all standards incorporated in BSEE's regulations are available to view for free at BSEE's headquarters office in Sterling, Virginia and at BSEE's other office locations, during normal working hours, upon request. BSEE received no requests to examine the standards proposed for incorporation in the proposed rule at BSEE's office.

In addition to making standards available at BSEE for in-office examination, API voluntarily allows the public to view documents cited in government regulations free of charge on its website. (*See, e.g.,* <http://www.api.org/publications-standards-and-statistics/publications/government-cited-safety-documents>). Documents from API and other SDOs (such as the American Society of Mechanical Engineers (ASME)) may also be purchased directly from those organizations.

In this case, the updated or reaffirmed editions of the API standards referred to in the proposed rule (as well as one new replacement standard) were made available for free viewing on API's website beginning on January 19, 2018. BSEE recognizes that those editions of the API standards were not available for viewing on API's website during the entire comment period. Nonetheless, those editions could be accessed for public viewing during a significant portion of the comment period. Moreover, at all times during the comment period, commenters could have requested to view the relevant editions of API's standards at BSEE's office or purchased copies of those editions from API for a fee.⁹ In any event, because API based the updated or reaffirmed editions of the API standards at issue in the proposed rule on prior editions already incorporated in BSEE's existing regulations, which were previously available for free viewing on API's website, stakeholders interested in those API standards should have already been familiar with the basic subject matter of the current editions even before the new editions were made available for viewing by API.¹⁰

⁹One commenter stated that it emailed BSEE during the comment period to request that BSEE provide the commenter with copies of all of the API standards currently incorporated and proposed for incorporation in BSEE's regulations, which BSEE did not provide. As explained in the proposed rule and elsewhere in this notice, BSEE must respect API's and other SDO's copyright protections and cannot provide free copies of a copyrighted document without the copyright-holder's consent. That is why BSEE makes copies of all incorporated standards (proposed or final) available for viewing at BSEE's office(s) and why BSEE provides instructions for how interested parties can either view such standards on the SDO's website or purchase the standards from the SDO.

¹⁰The new, updated editions of API standards that the proposed rule proposed for incorporation are API 510, API STD 2RD, API RP 2SM, ANSI/API RP 14B, API RP 14C, API RP 14FZ, API RP 14G, API RP 500, ANSI/API Spec. Q1, ANSI/API Spec. 6A, API Spec. 6AV1, ANSI/API Spec. 14A, ANSI/API Spec. 17J, and API 570. The reaffirmed standard is API RP 2SK (Third ed.). The only standard that BSEE proposed to incorporate that was not an updated edition or a reaffirmation of a currently-incorporated standard was API STD

In addition, although some commenters suggested or implied that BSEE should make incorporated industry standards freely downloadable and searchable, apparently without regard to whether the standards are protected by copyright under U.S. and international law. Federal law—including the NTTAA, which authorizes and requires BSEE to incorporate industry-developed consensus standards by reference under appropriate circumstances, and the OFR regulations (1 CFR part 51) that govern all incorporations by reference in Federal regulations—does not eliminate copyright protection for incorporated standards. In fact, OFR, which has authority to approve all incorporations by reference, has considered and expressly rejected the idea that either the NTTAA or OFR's own regulations remove copyright protections. *See* 79 FR 66267, 66273 (Nov. 7, 2014).¹¹ Accordingly, as explained in the proposed rule (82 FR 61705), BSEE must respect the publisher's copyright, which means that BSEE could not make and provide copies of the copyrighted standards to other parties without the copyright-holder's consent.

Further, OFR's rules for incorporation by reference require only that an agency discuss in the final rule the ways that the incorporated document(s) are "reasonably available" to interested parties and how interested parties can obtain the documents. *See* 1 CFR 51.5(b)(2).¹² Elsewhere in the final rule, as well as in the proposed rule (82 FR 61705), BSEE discusses how the editions of the standards to be incorporated here are reasonably available by free viewing at BSEE's office, or viewing on the SDO's website(s), or by purchase from the SDO.¹³ Those procedures are consistent

6AV2, which API had substituted for the former API RP 14H (which was previously incorporated in § 250.198). *See* 82 FR 61706.

¹¹ In OFR's most recent revision of its regulations governing incorporation by reference, OFR stated that "[t]he NTTAA [has] not eliminated the availability of copyright protection for privately developed codes and standards that are referenced in or incorporated into federal regulations. Therefore, we [OFR] cannot issue regulations that could be interpreted as removing copyright protection from [incorporated by reference] IBR'd standards." 79 FR 66273.

¹² Similarly, OFR's regulations require that proposed rules discuss the ways that materials proposed for incorporation are "reasonably available" or how the agency worked to make those materials reasonably available. *See* 1 CFR 51.5(a)(1).

¹³ 1 CFR 51.7 of OFR's regulations indicates that, to be eligible for incorporation by reference, a document needs only to be reasonably available to (and usable by) "the class of persons affected." BSEE is confident that members of the regulated industry that are affected by the incorporated standards are able to purchase copies of the standards from API or other SDOs for their use.

with BSEE's longstanding practice in many other rulemakings and OFR has reviewed and approved the incorporations by reference in this final rule in accordance with OFR's own regulations.

Other Concerns About Using Incorporation by Reference

Comment: One commenter stated that incorporation by reference can be cumbersome and that, in many cases, it reduces clarity of the regulatory requirements. This commenter suggested that BSEE use caution in this process and recommended that BSEE develop a way to provide a short summary of the incorporated document that will aid the reviewer in determining the document's applicability and whether the reviewer needs to review that document in order to clarify the Federal regulatory requirements.

Response: BSEE understands that the incorporation by reference of standards may sometimes appear cumbersome and may result in some questions that need further clarification. When BSEE decides to incorporate a standard by reference, it uses its best efforts to anticipate potential problems and to make the incorporation as simple, clear, and straightforward as possible. And if some confusion nonetheless arises after a standard is incorporated, BSEE can and does use several means to provide more clarity (e.g., Regulatory Interpretations, guidance through Notices to Lessees and Operators (NTLs)).

BSEE disagrees, however, with the commenter's suggestion that the incorporation of documents by reference in general is overly cumbersome and often reduces clarity, and with the implication that BSEE therefore should not use incorporated standards.

Standards typically address complex technical issues, often at great length and in great detail, and it would be difficult and impracticable to duplicate that effort by drafting and inserting such detailed standards in the regulations. In fact, the NTTAA requires Federal agencies to use technical standards developed by voluntary consensus organizations to carry out the agencies' objectives, when consistent with Federal law, in lieu of creating new Federal standards. And it is frequently more practical and efficient for agencies to incorporate such standards—with which the regulated industry is typically already familiar through their development by industry experts—by reference in the regulatory text rather than for the agencies to develop separate Federal standards. Moreover, OMB

Circular A-119, which instructs agencies on compliance with the NTTAA, expressly recognizes incorporation by reference of such standards as an acceptable means of using such standards in regulations.

Consistent with the NTTAA, BSEE frequently participates in the standards development process by attending relevant standards development committee meetings and commenting on the documents as they are developed. Furthermore, requiring operators to follow specific standards documents that are incorporated by reference in the regulations often helps operators by providing detailed instructions for meeting the standards that would be impracticable to include in regulatory text. These instructions can help ensure consistency in operators' approaches to carrying out regulatory requirements. This consistency, in turn, helps BSEE in reviewing and approving plans, permits, and other applications and simplifies the inspection process.

With regard to the commenter's suggestion that BSEE provide summaries of the relevant standards, BSEE notes that it is already required, by OFR's regulations governing incorporations by reference, to summarize the incorporated materials in preambles to proposed and final rules (*see* 1 CFR 51.5(a)(2), 51.5(b)(3)), which are provided to OFR for review before the proposed and final rules are published. In this case, BSEE provided such summaries in the proposed rule (82 FR 61706–61709) and elsewhere in this final rule that have been reviewed and approved by OFR. BSEE has also provided summaries of the standards incorporated with this final rule in a document titled, "AA37—Oil and Gas Production Safety Systems—Revisions (Subpart H), Summary of standards incorporated by reference that are being updated to newer editions in this final rule." That document may be viewed by accessing the online docket for this rulemaking action located at the Federal eRulemaking Portal: <https://www.regulations.gov>.

Comment: A commenter noted that BSEE proposed to adopt certain industry standards although it had not yet completed its own technical and regulatory evaluations (at the time of the proposal) of each standard to ensure that it provides superior safety and environmental protection. The commenter also stated that "The Report to the President by the National Commission on the BP *Deepwater Horizon* Oil Spill and Offshore Drilling . . . sounded a strong warning" about DOI relying too heavily on API standards and on incorporating those

standards into agency regulations. The commenter asserted that the Report raised concerns that API's role in developing standards could compromise BSEE's regulatory framework, since API also serves as the industry's principal lobbyist and advocate. The commenter also asserted that the report noted that API standards increasingly fail to reflect "best industry practices" and that, because the Department had relied on API in developing its own regulatory safety standards, any shortfalls in API's objectivity could also undermine the Department's regulatory system.

Response: BSEE acknowledges some of the commenter's concerns regarding the use of industry standards in its regulations, but disagrees with much of this comment and with the commenter's conclusions. First, BSEE notes that the Report's concerns with incorporation of industry standards were based on agency practices and other circumstances pre-dating the 2010 DWH incident. Since that event, many of those practices and circumstances have changed significantly.

With regard to the commenter's concern that BSEE had not completed its own evaluation of the new editions of certain standards that BSEE proposed to update, BSEE agrees that was the case at the time the proposed rule was published. However, BSEE did not intend to incorporate into a final rule any standards for which it had not completed its evaluation and is not doing so. Rather, BSEE sought to use the proposed rulemaking to solicit public feedback on those documents for BSEE to take into consideration while BSEE continued its internal review of these documents. See 82 FR 61705. In fact, BSEE has benefited from consideration of the public comments on the proposed incorporations, and those comments have helped inform BSEE's determinations as to whether the new (or reaffirmed) editions proposed for incorporation are appropriate for inclusion in this final rule. In addition, soliciting comments on the proposed incorporations during BSEE's continued evaluation of those newer versions of the standards has enabled BSEE to proceed more expeditiously to the incorporation in this final rule of those standards that BSEE has now determined will provide the same or higher levels of safety and environmental protection. As discussed in part G of this notice, BSEE has completed its review of most of the updated editions or new standards proposed for incorporation in the proposed rule and has included those editions and the one new standard in this final rule. However, BSEE is still

evaluating several remaining editions proposed for incorporation and is not including those remaining editions in this final rule. BSEE needs more time to complete its evaluation of those standards and will make final decisions on whether to incorporate some or all of those editions in a final rule at a later date.

Concerning the comments on BSEE's use of API standards, and the assertion that API standards increasingly do not represent best industry practices, BSEE does not agree that incorporation and use of the standards referenced in this final rule is either inappropriate or detrimental to safety and environmental protection. BSEE has evaluated the API standards incorporated in this final rule, and determined that they are at least as protective as the previously incorporated versions of those standards and serve as a valuable complement to BSEE's regulations in helping to achieve the statutory objectives. These standards provide a baseline. BSEE adds supplemental requirements where appropriate. Moreover, as previously discussed, the NTTAA mandates that Federal agencies use technical standards developed by voluntary consensus standards organizations, instead of government-developed standards, where practicable and consistent with applicable law. There are only a few SDOs, including API, that address issues related to offshore oil and gas operations. Also, API provides standards on technical topics that are not addressed by other SDOs. And, consistent with the NTTAA's preference for agency use of consensus standards (see 15 U.S.C. 272(e)(1)(A)(v)), API develops its standards through a "general consensus" process, which provides for input from those who are potentially "materially impacted" by the standard.

In addition, based on recommendations in other post-DWH reports (see, e.g., Final Report on the Investigation of the Macondo Well Blowout, *Deepwater Horizon* Study Group (March 1, 2011) at pp. 94–98), BSEE has expanded its standards program and increased its involvement in the standards development process, including development of many API standards, and is continuously improving and formalizing BSEE's internal process for reviewing standards relevant to the regulatory program. These developments will help BSEE to identify issues that may not be adequately addressed in incorporated standards and to supplement those standards, as necessary, in its regulations.

Comment: A commenter asserted that BSEE should provide a technical analysis of any new or updated industry standards proposed for incorporation. The commenter suggested that this analysis should be publicly available at the same time as the proposed rule and should verify that the new standard represents BAST. This commenter noted that BSEE had not completed its own technical review before proposing these changes. The commenter requested that BSEE complete this work, and then reissue proposed regulations with an appropriate technical justification that is made available to the public before the public is asked to submit comments on the proposed changes. The commenter also suggested that the Department should establish a process with the National Academy of Engineering to assess proposed changes in standards and to determine if the new editions of incorporated standards "enhance safety and environmental protection and represent the highest level of international regulatory practice."

Response: BSEE does not agree with the commenters' suggestions. First, the incorporation of industry standards in BSEE's regulations does not reflect a specific BAST determination by BSEE; those actions derive from separate authorities and are governed by different criteria. Thus, there is no support for the commenter's suggestion that "technical analysis" of a standard should include verification that it represents BAST.

In addition, the issue of whether BSEE should modify its procedures for incorporating industry standards in the future is beyond the scope of this rulemaking. As previously discussed, in this rulemaking BSEE made all of the documents incorporated by reference available for public review in connection with the comment period provided for the proposed rule and continues to make publicly available at its office all of the standards incorporated by reference in the final rule.

Similarly, BSEE does not agree that a "technical analysis" of the kind suggested by the commenter prior to a proposed incorporation by reference is necessary in order for commenters to be able to comment on such a proposal. As discussed previously, BSEE complies with the NTTAA requirement that an agency use standards developed or adopted by "voluntary consensus standards bodies" rather than government-unique standards, except where inconsistent with applicable law or otherwise impractical. (See OMB Circular A–119). BSEE also complies

with the OFR regulations governing incorporation by reference. Those regulations (*see* §§ 51.5(a)(2) and (b)(3) and 51.11(a)) specify the process for updating an incorporated standard, including the types of descriptions required in connection with proposed and final rule documents, and a requirement that the descriptions must be provided to OFR for its review. BSEE complied with those requirements by providing for public notice and comment through the proposed rule and by seeking OFR's approval for changes to the standards incorporated by reference in the final rule.¹⁴ This process does not require an agency to complete its review of a document it proposes to incorporate by reference prior to the proposed rule stage, and BSEE does not here in the final rule incorporate any standard for which it has not completed its review.

G. Section-by-Section Summaries, Responses to Comments, and Changes From the Proposed Rule

Documents Incorporated by Reference. (Section 250.198)

Section summary: Section 250.198 of the existing regulations contains provisions regarding how BSEE incorporates documents by reference in BSEE's regulations, lists all of the documents BSEE has incorporated by reference in 30 CFR part 250, and states BSEE's general expectations for compliance with those documents. The requirements for complying with a specific incorporated document can be found where the document is referenced in the regulations, as specified in § 250.198.

BSEE proposed to revise § 250.198 by replacing older editions of certain standards incorporated in the regulations with new or recently reaffirmed editions of those standards.¹⁵ In addition, BSEE proposed to replace API RP 14H (Installation, Maintenance and Repair of Surface Safety Valves and Underwater Safety Valves Offshore, Fifth Edition 2007), currently incorporated in the regulations but subsequently withdrawn by API, with a new standard, API STD 6AV2 (Installation, Maintenance and Repair of

Surface Safety Valves and Underwater Safety Valves Offshore, First Edition 2014). Finally, BSEE proposed to revise § 250.198(h)(58) and (62) in order to change cross-references (from to “§ 250.842(b)” to “§ 250.842(c)”) to the regulations which mention the two standards incorporated at those locations.¹⁶

BSEE received numerous comments that raised several issues (*e.g.*, public availability of standards) related to the proposed revisions to § 250.198. BSEE responded to those general comments elsewhere in this final rule. Several commenters also stated that they either supported or did not oppose the proposed incorporations, but provided no details regarding the merits of those documents. Several commenters, however, raised significant concerns with the merits of incorporating API RP 14C (Eighth Edition 2017) and API RP 500 (Third Edition 2012) at this time. For the reasons explained earlier in this notice, this final rule updates the incorporation by reference of 12 standards (including API RP 500, Third Edition) as proposed, but does not update the remaining five standards at this time.

BSEE received no comments on the proposed revisions to the cross-references in § 250.198(h)(58) and (62) and the final rule makes those revisions.

Comment: One industry commenter asserted that, although it did not oppose the proposed incorporation of the Third Edition of API RP 500, it needed more time to fully evaluate the impacts of the Third Edition (including the potential costs of implementation, especially for facilities that are under construction at the time the final rule takes effect) before compliance with that edition of the standard becomes mandatory. Therefore, the commenter recommended delaying the incorporation of the Third Edition of API RP 500 until a later date.

Response: BSEE does not agree that such a delay is warranted. API RP 500 (Second Edition) was adopted in 1997 and has long been incorporated in BSEE's regulations. The regulated industry has longstanding experience with how to implement that standard. Although the Third Edition made some significant revisions to the Second Edition, the commenter did not explain

or offer any examples as to why those differences would require more time to evaluate potential implementation concerns or costs. Moreover, although API was one of the joint commenters requesting a delay, API itself adopted the Third Edition (with the consensus of the industry) in 2012, and it has already had over five years to consider what the impacts of its own revised standard would be on the industry it represents. Thus, no delay in finalizing the proposed incorporation of the Third Edition of API RP 500 is necessary.

Comment: One commenter, although not opposed to the proposed incorporation of API RP 14C (Eighth Edition), raised strong concerns about the inclusion of that edition in the final rule at this time. The commenter asserted that, in light of the many substantive changes to the Eighth Edition, which was recently adopted (February 2017), more time is needed to assess the potential impacts and costs from implementation of those changes, especially with respect to facilities still under construction. Two commenters also pointed out that there are a number of significant organizational and other clerical errors, as well as several apparent inconsistencies, in the Eighth Edition that need correction and that would cause substantial confusion and implementation problems if incorporated at this time.

Response: The standards being incorporated into the regulations are updated editions to what is already incorporated by reference, not adoptions of novel standards. At the time BSEE or its predecessor originally incorporated the standards in the regulations, BSEE determined that they would improve safety and environmental protection for their respective applications. Subsequently, BSEE reviewed updated editions of each standard and concluded in this final rule that the new editions increase the overall safety baseline from the previously incorporated editions. Since the nature of operations evolves and equipment changes over time, standards also change to keep up-to-date. Updating the incorporation of standards to newer editions helps maintain and improve the safety and environmental integrity of operations. BSEE does not anticipate the change in burden to be significant, since updating to the new editions will not require retrofit of equipment. The revised maintenance and testing procedures contained in these standards are generally modifications of existing procedures, which are already required. BSEE is aware that there are a number of organizational problems and clerical and other non-substantive errors in the

¹⁴ Under certain circumstances, existing § 250.198(a)(2) authorizes BSEE to incorporate a newer edition of an industry standard through a direct final rule (*i.e.*, without a prior proposal); however, that authority was not exercised in this rulemaking.

¹⁵ As described in more detail later, the provisions proposed to be updated in this way included: ASME Boiler and Pressure Codes, Sections I, IV and VIII; API 510; API RP 2SK; ANSI/API RP 14B; API RP 14FZ; API RP 14G; API RP 500; ANSI/API Spec. Q1; ANSI/API Spec. 6A; API Spec. 6AV1; API STD 6AV2; and API 570.

¹⁶ The references in § 250.198 to be modified in this way are related to: API RP 14F, Design, Installation, and Maintenance of Electrical Systems for Fixed and Floating Offshore Petroleum Facilities for Unclassified and Class 1, Division 1 and Division 2 Locations, Upstream Segment, Fifth Edition (2008, reaff. 2013); and API RP 14J, Design and Hazards Analysis for Offshore Production Facilities, Second Edition (2001; reaff. 2013).

Eighth Edition that could significantly affect other standards that refer to and rely on API RP 14C, and that could interfere with the industry's and BSEE's ability to implement the regulations. BSEE is also aware that API is currently considering how to resolve these concerns. BSEE has therefore decided not to update the reference to API RP 14C in § 250.198 in the final rule at this time.

In addition, although BSEE has completed its evaluation of most of the standards proposed for incorporation (including the Third Edition of API RP 500), BSEE needs more time to complete its evaluation of the other five standards (including the Eighth Edition of API RP 14C). Accordingly, BSEE will not finalize the proposed incorporation of the following standards at this time and will make final decisions as to whether to incorporate some or all of these standards in a final rule at a later date:

- API RP 14C, Analysis, Design, Installation, and Testing of Basic Surface Safety Systems for Offshore Production Platforms, Eighth Edition (February 2017). BSEE proposed to substitute the Eighth Edition for the currently incorporated Seventh Edition (2001, reaffirmed 2007). The Eighth Edition contains extensive substantive changes compared to the last substantive revision (the Sixth Edition) in 1998 and makes numerous organizational changes as compared to the Seventh Edition.
- API STD 2RD, Dynamic Risers for Floating Production Systems, Second Edition, September 2013. BSEE proposed to substitute this standard for the currently incorporated First Edition of API RP 2RD (1998, Errata 2009) of the same standard.
- ANSI/API Spec. 14A, Subsurface Safety Valve Equipment, Twelfth Edition (January 2015; Errata, July 2015; Addendum, June 2017). BSEE proposed to substitute the Twelfth Edition for the currently incorporated Eleventh Edition (2005) of the same standard.
- ANSI/API Spec. 17J, Unbonded Flexible Pipe, Fourth Edition May 2014; Errata 1, September 2016; Errata 2, May 2017; Addendum 1, October 2017. BSEE proposed to substitute this edition for the currently incorporated Third Edition (2008) of the same standard.
- API RP 2SM, Design, Manufacture, Installation, and Maintenance of Synthetic Fiber Ropes for Offshore Mooring, Second Edition (2014). BSEE proposed to substitute this edition for the currently incorporated First Edition (2001; 2007 Addendum) of the same standard.

BSEE is carrying forward with certain proposed revisions to § 250.198 in the

final rule. First, as previously mentioned, and as proposed, the final rule revises § 250.198(h)(58) (which incorporates API RP 14F, Recommended Practice for Design, Installation, and Maintenance of Electrical Systems for Fixed and Floating Offshore Petroleum Facilities for Unclassified and Class 1, Division 1 and Division 2 Locations, Upstream Segment) and § 250.198(h)(62) (which incorporates API RP 14J, Recommended Practice for Design and Hazards Analysis for Offshore Production Facilities) to update the cross-references to § 250.842(b), which this final rule has redesignated as § 250.842(c). Second, BSEE has completed its evaluations of the following standards, as well as any comments received on their proposed incorporation, and determined that these standards are at least as protective of safety and the environment as the standards previously incorporated in the regulations. Accordingly, this final rule revises existing § 250.198 to incorporate the following updated standards:

- ASME Boiler and Pressure Vessel Code (BPVC)
 - Section I, Rules for Construction of Power Boilers including Appendices (2017 Edition). This edition replaces the previously incorporated 2004 edition of that standard, including the July 2005 Addenda and all Section I Interpretations Volume 55. ASME BPVC Section 1 provides methods and requirements for: construction of power, electric, and miniature boilers; high temperature water boilers, heat recovery steam generators, and certain fired pressure vessels to be used in stationary service; and power boilers used in locomotive, portable, and traction service. Major changes in the 2017 edition include: (a) New guidance on visual examination in the fabrication process; (b) a non-mandatory option for ultrasonic examination acceptance criteria; (c) requirements for retaining radiographs as digital images; (d) clarification of material identification requirements for a "pressure part material;" (e) updated mandatory training requirements for qualified personnel for various non-destructive examination (NDE) techniques; (f) updated provisions on the types of auxiliary lift devices that operators can use for alternative testing of valves to align with current state of the art; (g) clarification that welded pressure parts must be hydrostatic-tested with the completed boiler; and (h) references to other updated standards.
 - Section IV, Rules for Construction of Heating Boilers; including Appendices 1, 2, 3, 5, 6, and Non-

mandatory Appendices B, C, D, E, F, H, I, K, L, and M, and the Guide to Manufacturers Data Report Forms (2017 Edition). This edition replaces the previously incorporated 2004 Edition and 2005 Addenda of that standard. The updated standard provides requirements for design, fabrication, installation, and inspection of steam heating, hot water heating, hot water supply boilers, and potable water heaters intended for low pressure service that are directly fired by oil, gas, electricity, coal, or other solid or liquid fuels. The new edition also (a) provides equipment scope clarifications, (b) includes a new mandatory appendix for feedwater economizers, (c) deletes conformity assessments requirements and moves them to normative reference ASME CA-1, (d) provides new corrosion resistant alloy requirements for internal tank surfaces of heat exchangers installed in storage tanks, and (e) clarifies requirements for modular boilers.

- Section VIII, Rules for Construction of Pressure Vessels; Divisions 1, 2, and 3 (2017 Edition) and all Section VIII Interpretations Volumes 54 and 55. This edition replaces the previously incorporated 2004 Edition and 2005 Addenda, Divisions 1, 2, and 3 and all Section VIII Interpretations Volumes 54 and 55. Since the 2004 edition was issued, ASME has rewritten the BPVC code to incorporate the latest technologies and engineering knowledge. The 2017 Edition gives detailed requirements for the design, fabrication, testing, inspection, and certification of both fired and unfired pressure vessels. This updated edition specifically refers to those pressure vessels that operate at pressures, either internal or external, that exceed 15 pounds per square inch gauge (psig). Section VIII contains three divisions, each of which covers different vessel specifications.

- API 510, Pressure Vessel Inspection Code: In-Service Inspection, Rating, Repair, and Alteration, Downstream Segment, Tenth Edition (May 2014), including Addendum 1 (May 2017). This edition replaces the previously incorporated Ninth Edition of the same standard. API 510 covers the in-service inspection, repair, alteration, and re-rating activities for pressure vessels and the pressure-relieving devices protecting these vessels. API 510 is intended to specify the in-service inspection and condition-monitoring program that is needed to determine the integrity of pressure vessels and pressure-relieving devices. The Tenth Edition includes updated normative references, updated definitions, and new requirements for inspection programs, corrective actions,

management of change, integrity operating windows, pressure testing, corrosion considerations, and marking requirements.

- API RP 2SK, Design and Analysis of Stationkeeping Systems for Floating Structures, Third Edition (October 2005), Addendum (May 2008), reaffirmed edition of June 2015. The reaffirmed document makes no changes to the previously incorporated 2008 Third Edition. It provides a method for analyzing, designing, or evaluating station-keeping systems (mooring, dynamic positioning, or thruster-assisted mooring) that operators use for floating units. The reaffirmed standard also addresses some operational aspects of such systems and provides different design requirements for mobile and permanent moorings.

- ANSI/API RP 14B, Design, Installation, Operation, Test and Redress of Subsurface Safety Valve Systems, Sixth Edition (September 2015). This edition replaces the previously incorporated Fifth Edition (2005) of the same standard. This standard creates requirements and provides guidelines for subsurface safety valve (SSSV) system equipment. Manufacturers and operators design and install SSSVs to prevent an uncontrolled well flow, when actuated. The Sixth Edition addresses system design, installation, operation, testing, redress, support activities, documentation, and failure reporting. The Sixth Edition covers specific equipment including control systems, control lines, SSSVs, and secondary tools and provides criteria for proper redress for replacement or disassembly of an SSSV. In contrast to the Fifth Edition, the Sixth Edition also emphasizes supplier and manufacturer operating manuals, systems integration manuals, handling, system quality, documentation, and data control.

- API RP 14FZ, Design, Installation, and Maintenance of Electrical Systems for Fixed and Floating Offshore Petroleum Facilities for Unclassified and Class I, Zone 0, Zone 1 and Zone 2 Locations, Second Edition (May 2013). This edition replaces the previously incorporated First Edition (2001, reaffirmed 2007) of the same standard. The Second Edition contains substantial changes from the First Edition. The Second Edition establishes minimum requirements and guidelines for design and installation of electrical systems on fixed and floating petroleum facilities located offshore in hazardous locations classified as Zone 0, Zone 1, or Zone 2. As revised, the Second Edition of API RP 14FZ applies to both permanent and temporary electrical installations and

describes basic desirable electrical practices for offshore electrical systems.

- API RP 14G, Fire Prevention and Control on Fixed Open-type Offshore Production Platforms, Fourth Edition (April 2007), reaffirmed January 2013. The reaffirmed document makes no changes to the previously-incorporated standard. This reaffirmed standard includes provisions for minimizing the likelihood of an accidental fire, and for designing, inspecting, and maintaining fire control systems. The reaffirmed standard emphasizes the need to train personnel in firefighting, to conduct routine drills, and to establish methods and procedures for safe evacuation. API's intent in this standard is for fire control systems to provide an early response to prevent incipient fires from spreading; however, the intent is not to preclude the application of more extensive practices to meet special situations or the substitution of other systems that will provide an equivalent or greater level of protection. This reaffirmed standard is applicable to fixed open-type offshore production platforms, which are generally installed in moderate climates and which have sufficient natural ventilation to minimize the accumulation of vapors; enclosed areas, such as quarters buildings and equipment enclosures, normally installed on this type platform are addressed. Totally enclosed platforms installed for extreme weather conditions or other reasons, however, are beyond the scope of this standard.

- API STD 6AV2, Installation, Maintenance, and Repair of Surface Safety Valves and Underwater Safety Valves Offshore (First Edition March 2014) and Errata 1, August 2014. This standard replaces the previously incorporated API RP 14H, Installation, Maintenance and Repair of Surface Safety Valves and Underwater Safety Valves Offshore (Fifth Edition 2007), which API withdrew when it adopted API STD 6AV2. The new standard provides practices for installing and maintaining Surface Safety Valves (SSVs) and Underwater Safety Valves (USVs) used or intended to be used as part of a safety system (as defined by documents such as API RP 14C) and includes provisions for conducting inspections, installations, and maintenance, field and off-site repair as well as provisions addressing testing procedures, acceptance criteria, failure reporting, and documentation. API STD 6AV2 also includes updated definitions, new provisions for qualified personnel, new documentation and test procedures, acceptance criteria for post-installation and post-field repair, and provisions for offsite repair and

remanufacture alignment to ANSI/API Spec. 6A.

- API RP 500, Classification of Locations for Electrical Installations at Petroleum Facilities Classified as Class I, Division 1 and Division 2, Third Edition (December 2012; Errata January 2014). This edition replaces the previously incorporated Second Edition (1997, reaffirmed 2002) of the same standard. The purpose of this standard is to provide guidelines for classifying locations (Class I, Division 1 and Class I, Division 2) at petroleum facilities for the selection and installation of electrical equipment. This standard followed the basic definitions given in the 2011 edition of National Fire Protection Association (NFPA) 70, National Electrical Code (NEC).

- ANSI/API Spec. Q1, Specification for Quality Management System Requirements for Manufacturing Organizations for the Petroleum and Natural Gas Industry, Ninth Edition (June 2013; Errata, February 2014; Errata 2, March 2014) and Addendum 1 (June 2016). This edition replaces the previously incorporated Eighth Edition (2007) of the same standard. This updated standard features over 85 new clauses and five new sections, creating a major shift in quality management as it applies to the oil and gas industry. A thematic change is the approach to quality through risk assessment and risk management. The five new sections include risk assessment and management, contingency planning, product quality planning, preventative maintenance, and management of change. The Ninth Edition is also intended to align with API Spec. Q2, Quality Management System Requirements for Service Supply Organizations for the Petroleum and Natural Gas Industries, First Edition (2011). Overall, the goal of ANSI/API Spec. Q1 Ninth Edition is to further enhance the minimum baseline requirements of quality management systems of oil and gas equipment manufacturers.

- ANSI/API Spec. 6A, Wellhead and Christmas Tree Equipment, Twentieth Edition (October 2010; Addendum 1, November 2011; Errata 2, November 2011; Addendum 2, November 2012; Addendum 3, March 2013; Errata 3, June 2013; Errata 4, August 2013; Errata 5, November 2013; Errata 6, March 2014; Errata 7, December 2014; Errata 8, February 2016; Addendum 4, June 2016; Errata 9, June 2016; Errata 10, August 2016). This edition replaces the previously incorporated Nineteenth Edition (2004) of the same standard. The Twentieth Edition includes significant changes from the previous edition, such

as: (a) Updated definitions and terms; (b) updated normative references to other standards; (c) temperature ratings; (d) more stringent material performance requirements; (e) a revised repair and remanufacture annex; (f) updated requirements for equipment in hydrogen sulfide (H₂S) service; and (g) SSV and USV performance requirements. The Twentieth Edition also aligns with other standards, such as NACE MR0175 (for use in H₂S-containing environments), and contains options to use various American Society for Testing and Materials (ASTM) International documents for material testing. The authors removed references to obsolete standards and requirements for obsolete equipment from the Twentieth Edition.

- API Spec. 6AV1, Specification for Verification Test of Wellhead Surface Safety Valves and Underwater Safety Valves for Offshore Service, Second Edition (February 2013). This edition replaces the previously incorporated First Edition (1996, reaffirmed 2008) of the same standard. The Second Edition establishes design validation requirements for ANSI/API Spec. 6A, Specification for Wellhead and Christmas Tree Equipment, for SSVs and USVs as well as associated valve bore sealing mechanisms for Class II and Class III SSVs and USVs. Major changes from the First Edition include: replacing “Performance Requirement” with the term “Class;” phasing out the use of Class 1/PR1 valves; establishment of API licensing of test agencies; updated facility requirements; more specificity on the validation testing procedures of Class II valves; and new validation tests for Class III SSVs and USVs.

- API 570, Piping Inspection Code: In-service Inspection, Rating, Repair, and Alteration of Piping Systems, Fourth Edition (February 2016; Addendum 1, May 2017). This edition replaces the previously incorporated Third Edition (2009). API 570 covers inspection, rating, repair, and alteration procedures for metallic and fiberglass-reinforced plastic piping systems and their associated pressure relieving devices that have been placed in service. This inspection code applies to all hydrocarbon and chemical process piping covered in section 1.2.1 that have been placed in service (unless specifically designated as optional per section 1.2.2). This publication does not cover inspection of specialty equipment, including instrumentation, exchanger tubes and control valves. The “in service inspection” Code in this standard no longer covers process piping systems that have been retired from service and abandoned in place. However, piping that is abandoned in

place may still need some amount of inspection and/or risk mitigation to ensure that it does not become a process safety hazard because of continuing deterioration. Process piping systems that are temporarily out of service, but have been preserved for potential future use, are still covered by the new edition of this Code.

Timing of Compliance With New Editions of Standards

Comment: Several commenters suggested that, if BSEE updated certain standards in the final rule, it should clarify that some of the updated standards would apply only to new equipment or to new offshore facilities; *i.e.*, that those updated standards would not require replacement of existing facilities or equipment that do not meet the updated standards’ requirements.

Response: BSEE does not believe that it is necessary to revise the regulatory text for the updated standards that are included in this final rule to specify which standards, or which provisions in those standards, apply prospectively. BSEE does not intend to require, and the standards themselves do not envision, replacement of existing facilities or equipment (that meet the applicable requirements that were in effect when the facilities or equipment were installed) simply because updated standards have been incorporated in this final rule. The updated standards will apply to all BSEE approvals of facilities and equipment prospectively (as of the effective date of the final rule). By the nature of the standards and the way in which they are incorporated in BSEE’s regulations, some of the updated standards’ provisions can apply only to new facilities or equipment (*e.g.*, provisions for design, analysis, and/or installation of certain new systems or new equipment). The language of the regulations and the referenced standards will result in their application to new and existing facilities or equipment, and require certain future actions (*e.g.*, equipment inspection, testing, removal/repair/replacement). Operators must ensure that those future actions are taken and that all existing facilities/equipment comply with those applicable requirements. Although BSEE believes that the nature, purpose, and scope of the updated standards—and of the regulations which reference those standards—in this final rule are clear as to which requirements apply only to new equipment/facilities and which requirements apply to both new and existing equipment/facilities, BSEE notes that:

- API STD 6AV2 (First Edition), API 510 (Tenth Edition), and API 570

(Fourth Edition) apply to both new and existing facilities and equipment;

- API RP 2SK (Third Edition, reaffirmed 2015), API RP 14FZ (Second Edition), and API RP 500 (Third Edition) apply only to new facilities installed after the final rule effective date; and

- ANSI/API RP 14B (Sixth Edition), ANSI/API Spec. Q1 (Ninth Edition), and API Spec. 6AV1 (Second Edition) apply only to new equipment installed after the effective date.

What must the DWOP contain? (Section 250.292)

BSEE did not receive any comments on this section of the proposed rule. Since BSEE decided not to incorporate by reference the second edition of API STD 2RD, as proposed, the final rule implements no changes to this section of the regulations.

General (Section 250.800)

BSEE proposed updating API RP 2RD to API STD 2RD in this rule. BSEE did not receive any comments on this section of the proposed rule. BSEE decided not to incorporate by reference the second edition of API STD 2RD, as proposed.

However, BSEE is revising paragraph (a) of this section to clarify expectations for preproduction inspections of new facilities, adding two new subordinate paragraphs to paragraph (a). In the current regulations, paragraph (a) of this section already requires operators to receive BSEE approval of their production safety system application and request a preproduction inspection from BSEE before commencing production. BSEE added a new paragraph (a)(1) to clarify the requirement to obtain approval of the production safety system application by referencing § 250.842, which contains the requirements for that application. BSEE also added new paragraph (a)(2) to highlight and clarify the requirement to request a preproduction inspection, including language noting that the operator must notify the District Manager 72 hours before it plans to commence initial production and adding a cross reference to that existing requirement in § 250.880(a)(1). These revisions are purely organizational and clarifying and do not impose any new substantive requirements.

Safety and Pollution Prevention Equipment (SPPE) Certification (Section 250.801)

Section summary: This section of the existing regulations contains requirements for the installation of certified SPPE on OCS wells or as part

of the system associated with the wells. It also clarified that (as of September 2017) SPPE includes SSVs and actuators, such as those installed on injection wells capable of natural flow, as well as BSDVs. This section of the existing regulations also specifies that BSEE will not allow subsurface-controlled SSSVs on subsea wells and provides that SPPE manufactured and marked pursuant to ANSI/API Spec. Q1 will be considered certified SPPE under part 250. Section 250.801(c) of the existing regulations also provides that BSEE may exercise its discretion, under certain conditions, to accept SPPE manufactured under quality assurance programs other than ANSI/API Spec. Q1.

In the proposed rule, BSEE proposed to clarify that GLSDVs are a type of SPPE, since, for reasons explained in the 2017 proposed rule (82 FR 61709), GLSDVs already must follow § 250.801. BSEE also proposed to revise the introductory sentence in paragraph (a) of this section to remove the phrase “[i]n wells located on the OCS,” since all of the equipment that is considered SPPE is either located in a well or a riser. After consideration of comments submitted on the proposed revisions to this section, as discussed below, the final rule revises § 250.801(a) to expressly include GLSDVs in the list of equipment that BSEE considers to be SPPE. In addition, as proposed, the final rule revises paragraph (a) to remove the phrase, “[i]n wells located on the OCS.”

Addition of GLSDVs to SPPE List

Comment: Commenters generally questioned the proposed addition of GLSDVs to the list of equipment that is considered SPPE. One comment asserted that GLSDVs are installed in a departing capacity (direction of flow into the well). The commenter stated that there is a check valve to prevent backflow and that there are no testing frequency or leakage rate requirements for GLSDVs and there is no mention of GLSDVs in the Eighth Edition of API RP 14C. Comments also stated that BSEE did not provide statistics or failure data to justify the proposed addition of GLSDVs as SPPE.

Response: BSEE does not believe that the assertions made in these comments warrant a change to the proposed revision. As explained in the proposed rule, the addition of GLSDVs to the list of SPPE is merely a clarification of what is already required by the current regulations. Section 250.835 currently requires that BSDVs meet the requirements in § 250.801, and § 250.873 states that GLSDVs must meet the requirements for BSDVs in

§ 250.835, so it follows that GLSDVs are already required to meet the requirements of § 250.801. The GLSDV acts as a robust, tested barrier to prevent backflow to the platform. The configuration of many subsea fields is such that it is important to prevent the continuous feeding of gas lift gas to the facility in the event of an emergency. Regarding the comment that GLSDVs are not addressed in API RP 14C, BSEE does not believe that the lack of direct mention of GLSDVs in that document is dispositive of whether the requirements for SPPE in subpart H should apply to those valves, which in fact they already did under the pre-existing regulations. BSEE notes that GLSDVs are mentioned in API RP 17V, Recommended Practice for Analysis, Design, Installation, and Testing of Safety Systems for Subsea Applications, First Edition, which was adopted by API in 2015 and includes the subsea requirements that were found in the Seventh Edition of API RP 14C. Although BSEE does not incorporate API RP 17V by reference in its regulations, that standard is considered a companion document for API RP 14C, and BSEE believes that the regulated industry is well aware of the connection between those standards. Regarding the assertion that there are no testing frequency or leakage rate requirements for GLSDVs, the current regulations include specific testing requirements for GLSDVs under § 250.873(d).

Comment: A commenter asserted that GLSDV requirements should apply only to subsea systems.

Response: BSEE agrees. In fact, GLSDVs are listed only under the subsea systems sections in the regulations. However, to clarify this point, BSEE added “associated with subsea systems” to § 250.801(a)(5) in the final rule.

Requirements for SPPE (Section 250.802)

Section summary: This section provides the requirements for SPPE. SPPE are key safety barriers that prevent catastrophic events from occurring on offshore platforms. This section requires compliance with a variety of industry standards and includes repair and documentation requirements. BSEE requested comments on the proposed elimination within § 250.802(c)(1) of a requirement that an independent third party certify that each device will function under the most extreme conditions to which it may be exposed. Based on the comments received, BSEE is revising existing paragraph (c)(1) and renumbering the remaining paragraphs of this section. In paragraph (c)(1) of the final rule, BSEE is removing the

requirement for an independent third party certification of the design of the SPPE. In the final rule BSEE is maintaining the requirement in the existing regulations that each device must be designed to function in the conditions to which it may be exposed, while deleting the phrase “most extreme.” BSEE is adding a provision in the final rule in paragraph (c)(1)(i) that was not in the proposed rule requiring the operator to have each device design tested by an independent test agency, according to the testing criteria in the appropriate standard as incorporated into the regulations. This change does not reflect any new substantive requirements or burdens, but rather merely reinforces existing requirements from documents that are already incorporated by reference in § 250.802. In addition, the final rule requires operators to maintain a description of the process used to ensure the device is designed to function as required in paragraph (a) and final paragraph (c)(1) of this section. The operator must provide this documentation to BSEE upon request. BSEE also included a provision in final paragraph (c)(1)(iii) that preserves the requirement for a qualified third party certification of a device, if that device is removed from service and installed at a different location. This ensures that the device will function as designed under the conditions to which it may be exposed in the new location.

Consistent with the proposed revision to § 250.801, BSEE is revising this section to include GLSDVs in the equipment addressed in paragraphs (a) and (c) of this section, as well. BSEE also is revising paragraph (d)(2) of § 250.802 to remove the phrase “on that well,” as proposed. BSEE does not need to specify the location of the SPPE since all of the equipment that is considered SPPE is either located in a well or a riser.

Third Party Certifications

Comment: BSEE received many comments on the proposed deletion of the requirements for third party certifications. Industry groups supported elimination of this requirement and concurred with the rationale in the proposed rule that suggested that this requirement duplicated validation and functional tests required in other sections of the regulations. Other commenters highlighted the importance of this equipment in preventing major incidents, noted recommendations arising out of the DWH incident related to the need for the use of third party certification programs, described the

value of independent third party verification, and asserted that BSEE had not provided any evidence to support a revision of the 2016 requirement. Many commenters believe that deletion of this requirement will increase the risks arising out of offshore oil and gas development. Commenters asked how BSEE would ensure the operators followed the standards as required, and met the design requirements for the SPPE, if the independent third party certification requirement was removed.

Response: BSEE agrees that the current industry standards and quality assurance certification programs related to SPPE have played an important role in improving the reliability of equipment that is manufactured for use on the OCS. Industry certification practices, such as the API Monogram Program, provide a level of assurance that these critical barriers are designed and manufactured according to good engineering practices. However, there are limits to the scope of these certification and verification programs. For example, these programs apply only to new equipment at the time of manufacture and the certifications are made by the OEMs rather than the operator (see industry comments: “it is the manufacturer’s responsibility to meet the design requirements of API standards, not the operator” and “it is the responsibility of the manufacturer to meet certification requirement of ANSI/API Spec Q1”).

However, the responsibility for verifying that the SPPE is fit-for-service on a specific facility ultimately rests with the operator and BSEE, not the OEM. The existing requirement for independent third party certification helps to supplement BSEE’s review process. Based on the public comments, BSEE reviewed this process and the existing third party certification programs and is revising the current requirements regarding the independent third party certifications as previously described.

BSEE determined that it is appropriate to retain the existing language requiring the device to be designed to function under the conditions to which it may be exposed, while deleting the phrase “most extreme.” The recommendations arising from the DHW incident included the use of the phrase “most extreme conditions” in the criteria for the blowout preventer (BOP), and BSEE then applied it to SPPE. However, unlike BOPs, operators do not generally move SPPE to other locations after it is installed. Manufacturers and operators design SPPE to be used in a specific well/location for the life of the equipment.

The potential for unanticipated extremes during production is less than during drilling or completion operations. Manufacturers and operators know the operating environment when they design the SPPE, and the basic design criteria includes temperature, pressure and flow rate for the well where the SPPE will be installed. The valves used are normally commercial, off the shelf products that are designed to function in a range of operating conditions. The most extreme production conditions generally occur at the beginning of production operations, since operating pressures decrease over time as the reservoir is produced. In addition, BSEE is retaining long standing requirements for design testing, as provided in the incorporated standards, as well as associated requirements for documentation of the design process. The final rule still provides that any SPPE that is removed from service, then installed in another location, must have independent third party certification. To the extent the final rule will no longer require independent third party certification in other contexts, the final rule will require the operator to maintain documentation of the process used to ensure the device is designed to function in the conditions to which it may be exposed and to provide that documentation to BSEE upon request. These elements of the final rule help address concerns raised by commenters regarding BSEE’s ability to verify compliance with the standards for design. As a result, we revised the language of the proposed rule in the final rule to state that the operator must have the device design tested by an independent test agency and must maintain documentation of the design process used to ensure that the device is designed to function under the conditions to which it may be exposed.

The independent third party certification required by existing regulations is a one-time certification of each device. A one-time certification will not guarantee that a device will function as designed for the life of the device. Accordingly, an independent third party’s certification that the device will function is inherently of limited value. The existing regulations already include additional requirements to ensure that SPPE will function when needed. For example, § 250.880 establishes detailed testing requirements for SPPE, based on the specific type of device, ensuring that all SPPE are tested on a regular basis and repaired or replaced, as appropriate. This regular testing is designed to ensure the SPPE

will function when needed, preventing failures during operations.

Existing BSDV Inventory

BSEE requested comments concerning a method of using BSDVs which were already in the operator’s inventory, but had not been certified pursuant to the SPPE requirements. BSEE also requested information on the size of this non-certified BSDV inventory. The comments from industry associations included a recommendation that would allow the use of non-certified equipment if a purchase order had been signed by the effective date of the 2016 rule. BSEE notes that operators were aware of the likely SPPE requirements long before the effective date of the 2016 rule. In addition, operators have options under the existing regulations for obtaining approval to use non-certified SPPE. We believe that this case-by case approval process is a better approach than attempting to address the issue through a modification of the SPPE requirements. Consequently, BSEE made no change to the regulations regarding existing BSDV inventory.

Requirements for Non-Certified Equipment

Comment: According to the commenter, the proposed regulations (presumably, the specific proposal to remove the phrase “on that well” from § 250.802(d)(2)) would allow pulling non-certified safety equipment from one well and moving it to another well. The commenter noted that current regulations allow non-certified equipment to remain in service on a specific well, until it is time to replace that equipment. The commenter went on to assert that the regulations allow this because there is a cost of pulling and replacing it, and BSEE provided operators the opportunity to use non-certified equipment for their useful remaining life in a specific well. The commenter noted that, therefore, the regulations would “grandfather” non-certified equipment for use in that specific well. The commenter concluded that, if the industry is allowed to pull non-certified equipment and move it to another well, new certified equipment will not be purchased and installed as planned. The commenter stated that continuing to use non-certified safety equipment is not in the public interest and could increase the risk of a spill. For those reasons, the commenter opposed this revision.

Response: BSEE disagrees. Whenever SPPE is installed on a well, it must be certified according to §§ 250.801 and 250.802(d)(1), neither of which is being modified to allow the behavior the

commenter describes. The existing provisions that allow operators to continue to use non-certified SPPE that is currently installed on a well applies only to equipment that was installed before the certification requirement was in the regulations. Any new SPPE or SPPE that requires offsite repair, re-manufacturing, or any hot work, must be replaced with certified SPPE. Operators are not allowed to remove non-certified SPPE from one well and install it on another well. The reason that BSEE is removing the phrase “on that well” is not to allow for the conduct described by the commenter, but to recognize that SPPE may also be installed on risers or locations in production systems other than a well itself.

What SPPE failure reporting procedures must I follow? (Section 250.803)

Section summary: Section 250.803(a) of the existing regulations: Requires operators to follow failure reporting requirements in ANSI/API Spec. 6A (Nineteenth Edition) for SSVs, BSDVs, and USVs, and to follow the requirements in ANSI/API Spec. 14A (Eleventh Edition) and Annex F of ANSI/API RP 14B (Fifth Edition) for SSSVs; defines a failure as “any condition that prevents the equipment from meeting the functional specification;” and requires operators to provide written notice of equipment failure to BSEE and the equipment manufacturer within 30 days after the discovery of the failure.

Existing § 250.803(b) requires operators to ensure that an investigation and a failure analysis to determine the cause of the failure are performed within 120 days of the failure and that the conclusions and any corrective action are documented. If an entity other than the manufacturer performs the investigation and analysis, the regulation requires operators to ensure that the manufacturer and BSEE receive copies of the analysis report. Existing § 250.803(c) specifies that if an equipment manufacturer notifies an operator that it changed the design of the equipment that failed, or if the operator changes operating or repair procedures as a result of a failure, then the operator must, within 30 days of such changes, report the design change or modified procedures in writing to the Chief of BSEE’s Office of Offshore Regulatory Programs (OORP) (at the address specified in existing paragraph (d)) or to the Chief’s designee.

BSEE proposed to revise § 250.803(a) to expressly include GLSDVs in the list of equipment that are subject to the failure reporting requirements and to

clarify that operators must submit their SPPE failure information to BSEE through the Chief, OORP, unless BSEE has designated a third-party under proposed paragraph (d), to whom operators would then be required to submit their failure information.¹⁷ Similarly, BSEE proposed to revise existing § 250.803(b) of this section to clarify that, when anyone other than the equipment manufacturer performs an investigation and analysis, operators must submit the investigation and analysis results to the Chief of OORP in accordance with proposed paragraph (d). BSEE also proposed to revise existing paragraph (d) to further clarify the requirement to submit failure information to a BSEE-designated third party. The final rule implements these revisions as proposed. Finally, although BSEE proposed no changes to the existing definition of “failure” in this section, the proposed rule invited input on whether or how to revise the definition to ensure consistency. The final rule makes no change to that definition.

Definition of “Failure”

Comment: Industry commenters requested that BSEE clarify the definition of “failure” of SPPE, which was added in the 2016 PSSR, and recommended that BSEE provide a definition to align with industry standards. Commenters further

¹⁷ Currently, the designee of the Chief of OORP is the U.S. Department of Transportation’s Bureau of Transportation Statistics (BTS). Operators submit this information through www.SafeOCS.gov, where it is received and processed by BTS. BSEE identified BTS as the designee and recommended that SPPE failure information should be sent to BTS via www.SafeOCS.gov through a press release issued on October 26, 2016 (<https://www.bsee.gov/newsroom/latest-news/statements-and-releases/press-releases/bsee-expands-safeocs-program>). BSEE and BTS have a Memorandum of Understanding (MOU) that provides for BTS collection of BOP and SPPE failure reports. The MOU may be viewed on BSEE’s website at: https://www.bsee.gov/sites/bsee.gov/files/bsee-bts-mou-08-18-2016_0.pdf. Reporting instructions are on the SafeOCS website at: <https://www.SafeOCS.gov>. Reports submitted through www.SafeOCS.gov are collected and analyzed by BTS and protected from release under the Confidential Information Protection and Statistical Efficiency Act (CIPSEA) (44 U.S.C. 101). CIPSEA requires that BTS treat and store such reports confidentially, under strict criminal and civil penalties for noncompliance. Information submitted under CIPSEA also is protected from release to other government agencies (including BSEE), from Freedom of Information Act (FOIA) requests and subpoena. If the information were to be submitted to BSEE, BSEE could only protect its confidentiality to the extent allowed by Federal law other than CIPSEA. The SafeOCS program was designed to protect the confidentiality of information submitted and promote failure reporting without fear of reprisals. The “Oil and Gas Production Safety System Events 2017 Annual Report” is available at https://www.safeocs.gov/sppe_home.htm.

recommended that, until they and BSEE could reach a “mutually agreeable” resolution, industry should document and maintain failure reports in accordance with applicable API standards, and provide failure reports to BSEE upon request. These commenters recommended that BSEE and industry hold workshops to determine the best repository or clearinghouse for collecting failure data.

Commenters asserted that the “failure” definition proposed in § 250.803(a) could be interpreted so broadly as to include maintenance issues and routine repair items that would create an administrative burden with no safety or environmental protection improvement, while noting that some operators disagree with this position. Those operators recognize that parts wear over time, and due to the wear, the SPPE device would “fail to meet the functional specification.”

Response: BSEE disagrees. Although BSEE sought input in the proposed rule about how to revise the current language specifying how “failure” is defined in this regulation, BSEE did not receive any specific proposals for modifying the existing definition of “failure.” Currently, according to BTS, the designated third party to receive SPPE failure information, submitters for each of the specific SPPE types appear to be following the definitions within the applicable API standard for individual equipment types. BSEE finds this to be a logical and reasonable approach that is consistent with the regulatory requirement; thus, no change to the “failure” definition has been made.

With regard to the commenters’ suggestion that BSEE hold workshops with industry to determine the best repository or clearinghouse for collecting failure data, BSEE does not agree that this approach is necessary, at this time. BSEE already has identified BTS as an appropriate clearinghouse for this data. The commenters did not raise specific objections or concerns related to BSEE’s designation of BTS to collect the failure data. BSEE’s collaboration with BTS allows the collection and analysis of failure data under strict standards of confidentiality, which supports robust reporting.

With regard to commenters’ assertion that the existing definition could be interpreted so broadly as to include maintenance issues and routine repair items, BSEE observes that the types of devices included as SPPE in the final rule represent primary and secondary barriers to prevent the loss of well control and subsequent potentially catastrophic events. In a study recently completed for BSEE by ExproSoft

(<https://www.bsee.gov/sites/bsee.gov/files/tap-technical-assessment-program/765aa.pdf>), approximately 30 percent of well control events worldwide were found to be related to such barriers for production platforms, especially after large storms such as hurricanes. Thus, commenters and others should not view failure reporting as inconsequential or unimportant to concerns such as safety and environmental protection.

Reporting Requirements

Comment: A commenter recommended that BSEE consider using the API Standard 689/ISO 14224 *Collection and Exchange of Reliability and Maintenance Data for Equipment* to clarify reporting requirements and standardize data collection processes.

Response: As the SPPE failure reporting program is relatively new, it is premature to require adherence to the referenced standard. BTS has prepared the first public report of aggregated statistics covering SPPE reports submitted by industry from the effective date of the requirement, November 7, 2016 through December 2017. BSEE still needs to assess results from the first year and identify any issues with regard to reporting or collection processes. In conducting this evaluation, BSEE plans to consider the potential usefulness of industry standards such as API Standard 689/ISO 14224 to improve the failure reporting program. At this time, however, the focus for the requested data is described within each of the cited standards and is intended to increase both the volume and quality of the aggregated equipment component failure data for SPPE shared among the regulated community and the OEMs that serve that community. BSEE is not adopting a change at this time.

Root Cause Analysis

Comment: A commenter recommended that BSEE incorporate internationally recognized good practice standards, coupled with verification; employ incident reporting with root cause analysis (RCA); and seek prevention of major incidents through research and development on emerging threats and use of various risk tools. Regarding failure reporting, the commenter asserted that the issue of what is considered a failure is tied to its root cause, and that operators should use RCA to analyze what systemic causes allowed the failure to occur, in addition to the immediate cause.

Response: BSEE agrees in general with the comment. In § 250.803, as revised by this final rule, BSEE establishes a system that is consistent with globally recognized good-practice

standards, complemented by verification. The equipment component failure notification, analysis, and reporting process implemented through this final rule applies the identified good practices to equipment component failures, use of RCA to aid in the prevention of catastrophic events, and proper consideration of emerging threats. The final rule also applies the concept of barrier management by requiring reporting on all failures of SPPE that represent sequential barriers to catastrophic events.

BSEE agrees that a failure is ultimately a result of its root cause, and BSEE is implementing the failure reporting requirements to promote confidence that there will be no adverse impact on entities that report failures by designating BTS as the third party to receive and analyze information submitted under this section (*see n.17*). As discussed above, BTS is able to analyze and store reports confidentially. BSEE also has included consideration of root cause at two levels within the current collection methods. The fields within the form include initial root cause information. For failures that require equipment to be returned to a shore facility for repair, BSEE requires a formal RCA report. Such an analysis looks beyond the immediate cause and investigates systemic factors. The use of probabilistic risk methods for catastrophic risk assessment is outside the scope of this rule, but BSEE might consider them in the future.

Strengthen Requirements

Comment: One commenter recommended that any revisions to § 250.803 failure reporting requirements should only strengthen them and not weaken them in any way. The commenter asserted that the current regulation does not require the processes or equipment that rely on the failed SPPE to be immediately shut-in until the equipment can be replaced with a certified, functioning SPPE and the commenter recommended that § 250.803 be revised to require immediate reporting of failed SPPE to BSEE and immediate shut-down of all processes or equipment that rely on the failed SPPE until replaced with a certified functioning SPPE. The commenter also recommended that, after investigation and collaboration with the equipment manufacturer is complete, the regulations should require the operator to notify BSEE of the long-term, permanent solution developed to either change the equipment design or modify operating, testing, maintenance, or repair procedures.

Response: BSEE did not propose to, and does not here, relax the standards of safety in relation to equipment component safety reporting. To the contrary, the final rule continues to recognize the importance of improving safety and reducing burdens on operators while continuing to ensure safety and environmental protection. The collection of equipment component failure information promotes continuous safety improvement by enabling examination of this information in the aggregate, and by requiring submissions of reports to the OEMs where the opportunity to address design issues is greatest. Accordingly, BSEE disagrees that the additional measures suggested by the commenter are needed at this time. BSEE regulations already require multiple barriers within each well under § 250.801. Those requirements minimize the possibility that a single SPPE failure would result in the release of hydrocarbons to the environment.

Communication on Failure Reporting

Comment: A commenter stated that since SPPE components are required to be certified in compliance with incorporated standards, all parties involved should play a significant role in failure reporting and recommended that BSEE develop a process to increase communication and information exchange among end users, manufacturers, certifying bodies, and agencies.

Response: BSEE agrees that all parties involved in SPPE design, maintenance, and repair should be involved in collection and assessment of the data. BSEE's system for implementing the current requirement accomplishes that objective. This communication is expected to increase as the program matures.

Design, Installation, and Operation of SSSVs—Dry Trees (Section 250.814)

Section summary: This section of the existing regulations establishes requirements for the design, installation, and operation of an SSSV in order to ensure its reliable operation. Among other things, existing § 250.814(d) requires operators to design, install, maintain, inspect, repair, and test all SSSVs in accordance with ANSI/API RP 14B (Fifth Edition 2005). BSEE proposed to revise paragraph (d) to replace the reference to ANSI/API RP 14B (Fifth Edition) with ANSI/API RP 14B (Sixth Edition 2015), which BSEE also proposed to incorporate by reference in § 250.198 in place of ANSI/API RP 14B (Fifth Edition). BSEE received no comments opposing this

specific revision and the final rule changes the reference to this standard as proposed.

Duplicative Requirements

Comment: A group of commenters recommended deleting paragraph (b) of existing § 250.814 because it is duplicative of § 250.802(b).

Response: BSEE disagrees. Section 250.814 is similar to, but not duplicative of, paragraph (b) of § 250.802. Section 250.802(b) requires that all SSSVs and actuators on dry and subsea trees comply with ANSI/API Spec. 14A, Subsurface Safety Valve Equipment (Eleventh Edition, 2005, reaffirmed 2012), as incorporated by reference in § 250.198(h)(73). Section 250.814, however, applies only to dry trees and specifies that operators must comply with ANSI/API RP 14B (now incorporated by reference in § 250.198(h)(55) of this final rule as the Sixth Edition, 2015) for designing, installing, maintaining, inspecting, repairing, and testing.

Third Party Testing

Comment: A commenter stated that the proposed modification to the SSSV system equipment requirements that discontinues third party testing is without merit, as the third party testing is essential to the nuclear and fossil fuel industry. The commenter stated that the SSSV system equipment malfunctioned during the *DWH* incident.

Response: This comment apparently concerns BOPs, since SSSVs were not involved in the *DWH* incident, but the BOP system was. BOPs are not addressed in this rulemaking, but were addressed in the 2016 WCR. In these final regulations, BSEE does not discontinue third party design testing of SSSVs. SSSVs, which are addressed in this final rule, have proven to be extremely reliable over the course of many decades. Manufacturers design SSSVs to fail in a safe mode: for example, most valves are designed so that if they fail (*i.e.*, lose pressure) they automatically close, thus preventing a release of hydrocarbons. In any event, if any leakage occurs, it does so within a closed, multiple barrier system.

Use of SSVs (Section 250.820)

Section summary: This section of the existing regulations requires operators to comply with API RP 14H (Fifth Edition 2007) for the installation, maintenance, inspection, repair, and testing of all SSVs, including requirements applicable if the SSV does not operate properly or if any gas and/or liquid fluid flow occurs during the leakage test. BSEE proposed to revise

this section to incorporate by reference API STD 6AV2 in place of API RP 14H (which was withdrawn by API). BSEE did not receive any comments on this section of the proposed rule and the final rule revises § 250.820 as proposed.

Emergency Action and Safety System Shutdown—Dry Trees (Section 250.821)

Section summary: This section of the existing regulations specifies actions that operators must take with respect to wells in the event of an emergency (*e.g.*, an impending hurricane), including installation as soon as possible of a subsurface safety device on any well capable of natural flow that does not already have such a device. The existing regulation also requires shut-in of all oil wells and all gas wells that require compression.

BSEE proposed to revise paragraph (a) of this section to clarify that operators must shut in the production on any facility that “is impacted or that will potentially be impacted by an emergency situation.” This proposed clarification was intended to ensure that operators understand their obligation to properly secure wells before the platform is evacuated in the event of an emergency. The proposed rule also included some examples of emergencies (such as named storms, ice events, or earthquakes), but did not specify all emergency events that could trigger this provision; rather, the operator must determine when its facility is impacted or will potentially be impacted due to an emergency situation. (*See* 82 FR 61710.) The final rule revises this section as proposed, except that, in response to one comment (discussed below), BSEE removed the reference to “in the Arctic” from the example of ice events as a possible emergency.

Installation of Subsurface Safety Devices

Comment: A commenter expressed concern about installation of a subsurface safety device post-earthquake in a Planning Boundary Area that has a high potential for significant seismic activity. The commenter asked BSEE to clarify the times when installation of such a device would not be appropriate in a production well in such an area.

Response: Subpart H establishes that production wells must have an SSSV installed. Sections 250.810 through 250.817 address circumstances when an SSSV could potentially be removed from a production well with tubing installations open to hydrocarbon-bearing zones. These circumstances generally include:

1. When approved by the BSEE District Manager (or, in Alaska, the OCS

Regional Supervisor of Field Operations) for a well incapable of natural flow (§ 250.810);

2. When in the process of changing-out an SSSV or the production tubing housing an SSSV (§ 250.812);

3. When an SSSV becomes inoperable and measures are taken to address the issue (§ 250.813);

4. When an SSSV is in the process of being repaired, replaced, or installed (§ 250.814); or

5. When a wireline or pumpdown-retrievable SSSV is removed for routine operations (not exceeding 15 days and with prescribed safety mitigations in-place) (§ 250.817).

By including “post-earthquake” in this section, BSEE intends to clarify that earthquakes are among the kind of emergency situations in which an operator must follow the requirements of this section, including the requirement to install an SSSV as soon as possible, if for some reason the operator had not already installed it.

Consistency With § 250.837(a)

Comment: One commenter proposed that BSEE adopt only the proposed language changes in § 250.837(a) and replace § 250.821(a) with § 250.837(a) language or expressly cross-reference that section.

Response: BSEE disagrees. The language in final paragraph (a) of § 250.821 and paragraph (a) of § 250.837 is consistent and establishes the safest approach for the types of “dry” and “subsea” systems potentially impacted by those paragraphs, respectively. Section 250.821 specifically addresses Emergency Action and Safety System Shutdowns related to dry trees that do not have BSDVs, USVs, or GLSDVs and related systems found in subsea wells, whereas § 250.837 pertains to subsea trees and their associated systems.

Definition of Arctic OCS

Comment: A commenter suggested clarification of the additions in §§ 250.821 and 250.837 relating to earthquakes and ice events. Specifically, the commenter suggested that BSEE remove the definition of Arctic OCS in § 250.105 and instead use the definition of Arctic OCS Conditions for defining the Arctic OCS without regard to Planning Boundary Area location.

Response: BSEE disagrees with the suggested revisions to the definitions for Arctic OCS and Arctic OCS Conditions in § 250.105, which BSEE did not propose to revise and are not within the scope of this rulemaking. Those definitions were adopted as part of the Arctic Exploratory Drilling Rulemaking, 81 FR 46478 (2016) (the Arctic Rule) to

align the scope of that rule with the areas of the Arctic OCS utilized in the DOI OCS Oil and Gas Leasing Program for 2012–2017 (June 2012, available at <http://www.boem.gov/Five-Year-Program-2012-2017>). Those definitions reflect the conditions and challenges the Arctic Rule was designed to address. Altering these definitions in this rulemaking would increase confusion over the scope and applicability of the regulations specifically associated with the Arctic OCS. To address the commenter's concern, however, BSEE removed the phrase "in the Arctic" from §§ 250.821 and 250.837 in the final rule. It is not necessary to specify "ice events in the Arctic," as "ice events" anywhere on the OCS have the potential to impact operations. Further, these provisions do not include a similar geographic specification for the other events—earthquakes or hurricanes—that it uses as examples.

Timing of Activities Associated With Emergency Events

Comment: A commenter suggested that, if it is BSEE's intent to require operators to complete the outlined activities prior to the evacuation of the facility, then the regulation should state that specific purpose. The commenter suggested revising § 250.821 to read: "If your facility is impacted or will potentially be impacted by an emergency situation (e.g., an impending National Weather Service-named tropical storm or hurricane, ice events in the Arctic, or post-earthquake), you must complete the following activities prior to evacuation of the facility:"

Response: BSEE disagrees with the suggested change. BSEE expects that operators will complete these activities before evacuation. However, as the current regulations acknowledge, that may not always be possible due to concerns for worker safety. Accordingly, operators must complete the installation of the subsurface safety device in event of an emergency "as soon as possible, with due consideration being given to personnel safety." BSEE does not believe that it would be prudent to replace this with an absolute requirement that does not take such considerations into account.

Design, Installation, and Operation of SSSVs—Subsea Trees (Section 250.828)

Section summary: This section addresses requirements for the design, installation, and operations of SSSVs installed on subsea trees. These provisions ensure reliable operation and establish that a well with a subsea tree must not be open to flow while an SSSV is inoperable. BSEE proposed to revise

§ 250.828(c) to update the title of API RP 14B with ANSI/API RP 14B. That proposal is adopted in this final rule.

Duplicative Requirements

Comment: Although BSEE did not propose any changes to § 250.828(c), one commenter recommended deleting that provision, asserting that it duplicates the requirements of § 250.802(b).

Response: BSEE disagrees that § 250.828(c) duplicates the requirements in § 250.802(b). This section applies only to SSSVs installed on subsea trees, while § 250.802(b) addresses general requirements for all SSSVs. Section 250.828(c) specifically addresses provisions related to SSSVs in the regulations, incorporated standards, and the approved deepwater operators plan (DWOP).

Specification for Underwater Safety Valves (USVs) (Section 250.833)

BSEE proposed revising the introductory paragraph in this section to replace API Spec. 6A with ANSI/API Spec. 6A. BSEE did not receive any comments on this section of the proposed rule. BSEE is finalizing this provision as proposed.

Use of USVs (Section 250.834)

The final rule revises this section by incorporating API STD 6AV2 in place of API RP 14H, which was withdrawn by API. BSEE did not receive any comments on this section of the proposed rule. BSEE is finalizing this provision as proposed.

Specification for All Boarding Shutdown Valves (BSDVs) Associated With Subsea Systems (Section 250.835)

Section summary: This section's requirements in the existing regulations for use of a BSDV are intended to provide the maximum level of safety for the production facility and the people aboard the facility. The BSDV is the most critical component of the subsea system. BSEE did not propose any changes to this section and is not making any changes to the regulatory text of this section in the final rule, however there was a comment submitted on this section. We include it in the preamble only to address the comments received.

Location of BSDV

Comment: Although BSEE did not propose any changes to this section, one commenter recommended revision of the existing requirement in paragraph (c) that the BSDV be located within 10 feet from the edge of the platform. The commenter stated that this requirement

is not feasible for large diameter lines on deepwater facilities and proposed a distance greater than 10 feet or according to the distance specified in the approved DWOP.

Response: BSEE does not agree that a change in paragraph (c) is justified. Operators may obtain approval for alternative designs under § 250.141 by demonstrating an equivalent or greater level of safety and environmental protection. This provides the operator with the flexibility to address unique situations involving deepwater facilities.

Use of BSDVs (Section 250.836)

BSEE proposed revising this section by incorporating API STD 6AV2 in place of API RP 14H, which was withdrawn by API. BSEE did not receive any comments on this section of the proposed rule. The final rule revises this section to update the new incorporation by reference, as proposed. In the final rule, BSEE is also making minor changes in the wording to emphasize that all BSDVs that are removed from service and reinstalled must meet the requirement of this section. This was the case under the existing regulation, but the revision will make the requirement more explicit.

Emergency Action and Safety System Shutdown—Subsea Trees (Section 250.837)

This section addresses actions operators must take in the event of an emergency situation. These situations include weather events, such as storms. This section includes details on valve closures related to specific conditions on the facility, such as process upsets and emergency shutdown (ESD) events, and it includes requirements pertaining to dropped objects in the vicinity of producing subsea wells.

BSEE is revising paragraph (a) of this section to clarify that operators must shut in the production on any facility that "is impacted or will potentially be impacted by an emergency situation." This revision is consistent with the revision to § 250.821(a) for facilities with dry trees. Paragraph (a) of the final rule includes examples of emergencies, such as named storms, ice events, or earthquakes. It is not BSEE's intent to specify all emergency events that could trigger actions required by this regulation. The operator must determine when there may be impacts due to an emergency or if an emergency event impacted their facility.

BSEE also adds GLSDVs to the list of equipment that must be closed during a shut-in. This is consistent with

identifying GLSDVs as SPPE in § 250.801 and elsewhere in this subpart.

In addition, BSEE is revising paragraph (b) of this section to clarify the requirements for dropped objects in an area with subsea operations and for consistency with the provisions of the dropped objects plan required by § 250.714. Section 250.714 does not require operators to submit this plan as part of the application for permit to drill (APD) or application for permit to modify (APM); rather, the operator must make their dropped object plans available to BSEE upon request. A dropped object plan is not a static plan and § 250.714 requires operators to update their dropped objects plans as the subsea infrastructure changes.

BSEE proposed revising several paragraphs in this section that address dropped objects to use the phrase “vessel (e.g., mobile offshore drilling unit (MODU) or other type of workover or intervention vessel)” in place of the current regulatory text, which uses “mobile offshore drilling unit (MODU) or other type of workover vessel.” Based on comments, BSEE revised this in the final rule to use “a mobile offshore drilling unit (MODU) or other type of workover or intervention vessel.” As proposed, BSEE is also replacing “producing subsea wells” with “subsea infrastructure” in the final paragraph (b). The current regulatory text limits these requirements to only those areas that have producing subsea wells. This change is more inclusive, requiring operators to address dropped objects in any area with infrastructure on the seafloor. Finally, as proposed, the final rule clarifies and updates the terminology in the second sentence of the existing paragraph (b)(2), while essentially preserving the requirement of the existing sentence.

Timing of Shut-Ins

Comment: Industry commenters recommended adding a “boundary condition” in § 250.837 as found in § 250.821. A commenter suggested the following examples of “modified conditions,” such as shut-in just prior to evacuation, or if full remote real-time monitoring and control capabilities exist, shut-in prior to exceeding safe environmental operating conditions as stipulated by regulatory approvals.

Response: BSEE disagrees with the suggested changes. Section 250.837(a) requires the operator to shut-in the facility in the event of an emergency and already provides an option for the operator to receive approval from the District Manager to address, on a case-by-case basis, situations such as the commenter described.

Use of the Word “Vessel”

Comment: Industry commenters opposed adoption of the proposed rule language in § 250.837(b) and (c)(5), stating that adding the generic term “vessel” followed by “mobile offshore drilling unit (MODU) or other type of workover or intervention vessel” as examples would make the requirement more ambiguous. Specifically, the proposed language could be interpreted to mean that the presence of any “vessel”—such as an offshore support vessel or standby vessel—would trigger this requirement, even if the vessel is not engaged in well operations. The comments stated that it would be overly burdensome to apply these requirements to vessels that do not latch onto the well for wellbore intervention activities (e.g., remotely operated vehicles (ROVs)) because intervention vessels that do not latch onto the well mitigate dropped object concerns through use of safe overboarding zones. Commenters suggested changing the wording in paragraph (b) to refer to “a mobile offshore drilling unit (MODU) or other type of workover or intervention vessel.”

Response: BSEE agrees that using “vessel” with parenthetical examples of MODU or other type of workover vessel, in this context, is too broad. As previously discussed, BSEE revised the final rule text to use “a mobile offshore drilling unit (MODU) or other type of workover or intervention vessel” instead. This captures appropriate types of vessels that would be involved in drilling or workover operations.

Period of Lost Communications

Comment: Industry commenters suggested revising § 250.837(b)(2) to replace “minutes or more” with “or more continuous minutes.”

Response: BSEE disagrees with this suggested change. The suggested changes reduce clarity and do not adequately address the interpretation of “intermittent communications” and “brief losses of communication.” They would, therefore, add to the confusion regarding when the requirement to shut-in wells under this provision applies.

Pressure Safety High Low (PSHL) Sensor Activation

Comment: Industry commenters suggest replacing the final sentence of paragraph (c)(2) with “If the PSHL sensor activation was not accompanied by an increase in pressure above the [maximum anticipated operating pressure], or the loss of integrity of the pipeline, you may return the wells to production without contacting the appropriate District Manager.”

Response: BSEE disagrees. The language the commenter recommends is an overly prescriptive description of a false alarm, which limits the situations that could be considered false alarms. It is the operator’s responsibility to identify a false alarm. If the sensor activation is identified as a false alarm, the operator may return the wells to production without notifying the District Manager. Further, the suggested text would represent a substantive change that would require a separate notice and opportunity for comment.

Platforms (Section 250.841)

Section summary: This section addresses protecting platform production facilities by requiring basic and ancillary surface safety systems to be designed, analyzed, installed, tested, and maintained in operating condition according to the provisions of API RP 14C. In addition, this section has basic requirements for platform production process piping.

BSEE adds a new paragraph (c) to this section to address major modifications to a facility, by directing operators to follow the requirements in § 250.900(b)(2). This is not a new requirement, as operators are already required to follow the provisions of § 250.900(b)(2) for major modifications. This simply provides direction to the operator and emphasizes the need to follow § 250.900(b)(2). The final paragraph (c) is substantively the same as the proposed, but with minor clarifying changes in response to comments.

In the proposed rule, BSEE also requested comments on paragraph (b) of this section, and whether BSEE needed to make other changes to address corrosion prevented. Existing paragraph (b) of this section requires operators to maintain all piping for platform production processes as specified in API RP 14E, Recommended Practice for Design and Installation of Offshore Production Platform Piping Systems (API RP 14E). Section 6.5(a)(1) of API RP 14E addresses painting of steel piping to prevent corrosion. BSEE solicited comments on this requirement in the proposed rule’s preamble. Corrosion prevention is important for safety and pollution prevention and BSEE is not removing the reference to API RP 14E from this section.

Major Modification

Comment: A commenter stated that the proposed language in § 250.841(c) could lead an operator to think “major facility modification” is a defined term in the regulation. The term “major modification” in current BSEE

regulations only applies to a platform structure. The commenter suggested specific revisions to the regulatory text to clarify this concern.

Response: BSEE agrees with the commenter and revises the final regulation to state that, if the operator plans to modify the production safety system in a manner that includes a major modification to the platform structure, then the operator must follow the requirements in § 250.900(b)(2). This adds clarity to the proposed text and merely cross-references existing requirements, rather than creating new ones.

Removal of § 250.841(c)

Comment: BSEE received multiple comments urging BSEE not to remove § 250.841(c).

Response: BSEE is not certain what provision the commenters were referring to, as there is no § 250.841(c) in the current regulations. BSEE proposed adding a new § 250.841(c) to address production safety system modifications. This provision is being retained in the final rule, with modifications to clarify intent with respect to major modifications to platform structures.

Approval of Safety Systems Design and Installation Features (Section 250.842)

Section summary: This section establishes requirements for safety system design and installation. It describes the information that the operators must include in their production safety system application for new and modified systems. This information is needed to verify that the operator followed the prescribed standards and addressed the critical aspects of the system design. In addition, this section requires the operator to submit as-built diagrams to BSEE, so BSEE has accurate information on file for inspections. Under this section, operators must maintain these and other supporting documents and provide them to BSEE upon request.

Existing Regulations and Proposed Changes

Paragraph (a)

The existing § 250.842(a) regulations require the operator to submit a production safety system application to the District Manager before installing or modifying a production safety system. While this section requires the application to be approved, it does not specify the timing of that approval. To address this, BSEE proposed to revise the introductory provisions in paragraph (a) to state that the District Manager must approve the production

safety system application before the operator may commence production through or utilize the new or modified system. BSEE is revising this provision in the final rule for clarity, to state that the District Manager must approve the production safety system application before the operator may commence production “through or otherwise use the new or modified system.”

Paragraph (a) of existing § 250.842 also includes a table that details the information that the operator needs to include in the production safety system application. Paragraph (b)(2) of the existing regulations requires the operator to certify that the “designs for the mechanical and electrical systems under paragraph (a) of this section were reviewed, approved, and stamped by an appropriate registered professional engineer(s).” This includes all of the information, diagrams, drawings, and designs that are submitted pursuant to existing paragraph (a). BSEE proposed to revise some requirements in the table in paragraph (a) related to the information, diagrams, drawings, and designs (design documents) operators must submit to BSEE for approval. BSEE proposed to revise this provision to require operators to submit the most critical documents to BSEE, and to have only those documents stamped by a PE.

In addition to requiring the operators to submit the most critical designs documents to BSEE and to have only those items sealed by a PE, BSEE proposed in a new paragraph (b) to require operators to develop and maintain other supporting documents. The supporting documents identified in proposed paragraph (b) provide additional details and information related to the design documents required in proposed paragraph (a). While these paragraph (b) documents provide supporting information, they are not critical for BSEE to review during the approval process. However, the operator still must develop these documents and make them available for review and inspection by BSEE upon request. The final rule generally reflects those changes as proposed, with some clarifications based on public comments.

BSEE proposed revising the table in paragraph (a) to require operators to submit the safety analysis flow diagram, safety analysis function evaluation (SAFE) chart, electrical one line diagram, and area classification diagram for new facilities and for modifications to existing facilities. BSEE proposed additional revisions and reorganization of the existing table in paragraph (a).

Existing provisions in paragraph (a)(1) require the operator to submit a piping

and instrumentation diagram; existing paragraphs (a)(1)(i) through (vii) identify the specific information that the piping and instrumentation diagram must include. BSEE proposed changing the requirement in existing paragraph (a)(1) for the piping and instrumentation diagram to instead require a safety analysis flow diagram and a SAFE chart, and also proposed to incorporate references to the relevant sections of API RP 14C that describe the contents of these two items. In addition, BSEE proposed to retain the information requirements for piping and instrumentation diagrams that were already in existing paragraphs (a)(1)(i) through (vii). However, under the proposed rule, the information required by the existing paragraphs (a)(1)(i) through (vii) would be submitted with the safety analysis flow diagram and SAFE chart, instead of the piping and instrumentation diagram. These proposed changes would better align the requirements with the information identified in industry standards, including API RP 14C. In the proposed rule, this information would be required for new facilities and modifications of existing facilities.

BSEE proposed additional reorganization of the table in paragraph (a) in conjunction with the proposed changes to paragraph (a)(1). Since the safety analysis flow diagram and SAFE chart are required under paragraph (a)(2) in the existing regulations, BSEE proposed to remove that paragraph in the table. BSEE also proposed to move the requirement for electrical system information from under existing paragraph (a)(3) to new paragraph (a)(2) and proposed to call that information the “electrical one-line diagram.” BSEE proposed revising the requirements for the electrical one-line diagram, to include “generators, circuit breakers, transformers, bus bars, conductors, battery banks, automatic transfer switches, uninterruptible power supply (UPS), dynamic (motor) loads, and static (e.g., electrostatic treater grid, lighting panels, etc.) loads.” This would also include a functional legend.

BSEE proposed to move the additional detailed electrical information that is required in existing paragraph (a)(3) to new paragraph (b)(1), as this is supporting information for the electrical systems. Proposed paragraph (b)(1) would require additional supporting electrical system information including: (i) Cable tray/conduit routing plan which identifies the primary wiring method (e.g., type cable, conduit, wire) and (ii) Cable schedule; and (iii) Panel board/junction box location plan.

BSEE proposed to remove from the table the information required in existing paragraph (a)(4) for schematics of the fire and gas-detection systems. Proposed paragraph (a)(4) would instead require a schematic piping and instrumentation diagram and apply to new facilities only.

Existing paragraph (a)(5) addresses the service fee for the production safety system application. BSEE did not propose any revisions to that paragraph.

Paragraph (b)

To accommodate the new paragraph (b), BSEE proposed removing existing paragraph (c) and redesignating existing paragraph (b) as new paragraph (c). New paragraph (b) would require the operator to develop and maintain documents that provide supporting documents to the design documents required in the table in proposed paragraph (a). These documents would contain information that is related to the design documents that would be required in proposed paragraph (a), but this information is not critical for BSEE to review during the approval process. However, the operator would still be required to develop these documents and make them available for review and inspection by BSEE upon request. The final rule generally reflects those changes as proposed, with some clarifications based on public comments.

Paragraph (c)

Under the proposed rule, new paragraph (c) (which is existing paragraph (b)) would continue to require operators to certify: (1) That all electrical installations were designed according to API RP 14F or API RP 14FZ, as applicable; (2) that an appropriate registered professional engineer(s) reviewed, approved, and stamped the designs for the mechanical and electrical systems that operators are required to submit under paragraph (a) of this section. For modified systems, only appropriate registered professional engineer(s) are required to approve and stamp the modifications. The registered professional engineer must be registered in a State or Territory of the United States and have sufficient expertise and experience to perform the duties; and (3) that a hazards analysis was performed in accordance with § 250.1911 and API RP 14J (incorporated by reference as specified in § 250.198), and that operators have a hazards analysis program in place to assess potential hazards during the operation of the facility. As proposed, BSEE is revising redesignated paragraph (c)(2) of § 250.842 (existing (b)(2)) to require the

designs for the mechanical and electrical systems that the operator is required to submit under paragraph (a) of this section be reviewed, approved, and stamped by an appropriate registered professional engineer(s).

Existing paragraph (c) requires operators to certify, in a letter to the District Manager, that the mechanical and electrical systems were installed in accordance with the approved designs, before beginning production. The intent of this step was to ensure the operator properly documented the installation of the mechanical and electrical systems. However, this submittal was a burdensome step to assure document management and confirm that operator performed the modification as proposed and approved. Because the operators must submit the as-built drawings, which BSEE uses for field verification, the required certification letter is redundant and not needed. So BSEE proposed to remove this requirement entirely.

Paragraph (d)

BSEE proposed to revise existing paragraph (d) to clarify requirements regarding PE stamping of required drawings. The rule proposed to require the diagrams that operators submit to BSEE under § 250.842(a)(1), (2), and (3) be reviewed, approved, and stamped by an appropriate registered PE(s). In addition, BSEE proposed moving the requirement from existing paragraph (e)—that the operators submit the as-built diagrams within 60 days of commencing production—to new paragraph (d).

Paragraphs (e) and (f)

Since under the proposed rule, the regulations no longer need existing paragraph (e) and BSEE proposed to delete it, BSEE proposed to redesignate existing paragraph (f) as new paragraph (e). Proposed, redesignated paragraph (e) would continue to address the requirements for maintaining the requisite documents. BSEE did not propose any revisions to the requirements in redesignated paragraph (e).

Final Rule

Paragraph (a)

In the final regulatory text, BSEE changed the language in introductory paragraph (a) to generally refer to the information submitted under § 250.842 as “design documentation.” BSEE made this change throughout § 250.842. This is a clarification and provides consistency in the way the regulations refer to the various diagrams required in this section.

BSEE is maintaining the requirements in the existing table in § 250.842(a)(1) through (5), mostly as proposed.

However, BSEE made some revisions to these sections in response to comments. In the final rule, BSEE combined the requirement in proposed paragraph (a)(1)(ii), “piping and specification breaks” with proposed paragraph (a)(1)(vii) and revised that requirement to specify “piping sizes” and to include “the location of piping and specification breaks” with the information required in paragraph (a)(1). Since paragraph (a)(1)(ii) was removed, the rest of the provisions in that paragraph were renumbered.

BSEE also revised paragraph (a)(2) in the final rule. BSEE removed “battery banks” as a specific item to be included on the required electrical one-line diagram, and added “associated battery banks” as part of what must be included with the uninterruptible power supply. In addition, paragraph (a)(3)(ii) in the final rule removed the location of “control rooms, motor control center (MCC) buildings, and any other buildings” as specific items included as part of the plan for the area classification diagram. The final regulatory text requires “any buildings” to be identified, with control rooms and MCC buildings provided as examples of types of buildings.

As was proposed, paragraph (a)(3) will no longer require operators to identify all areas where potential ignition sources are located in the design documents submitted to BSEE. This requirement is addressed under final paragraph (c)(3), which requires operators to perform a hazards analysis in accordance with § 250.1911 and API RP 14J. API RP 14J specifically addresses ignition sources and minimizing the chances of ignition. API RP 14J directs the operator to consider all ignition sources when designing their facility and provides detailed guidance on designing the facility and equipment to prevent the ignition of hydrocarbons. It is not necessary to specify that operators must develop and maintain a separate document identifying ignition sources because this is part of compliance with API RP 14J. In addition, existing paragraph (b)(3) (proposed paragraph (c)(3)) requires operators to have a hazards analysis program in place to assess potential hazards during the operation of the facility. The final rule, as proposed, still requires the operator’s classification diagram to show safety-critical information, such as the locations of significant hydrocarbons and Class I flammable sources, but, in light of the requirement in § 250.842(c) and API RP

14J, it is not necessary for the operator's classification diagram to show this level of detail.

The final rule revises the regulatory text for paragraph (a)(4) to state that the production safety system application must include a "piping and instrumentation diagram, for new facilities," removing the word "schematic." Also, BSEE added the word "flow" to the description of the detailed information the piping and instrumentation diagram must include; to read, "a detailed flow diagram." These changes are described in more detail in the comment and response discussion that follows this Section Summary.

Paragraph (b)

BSEE finalized new proposed paragraph (b), with some revisions. The drawings required under final paragraph (b) include additional electrical system information, schematics of the fire and gas-detection systems, and revised piping and instrumentation diagrams for existing facilities. BSEE revised final paragraph (b) to make clarifications, based on comments; these changes are similar to the changes made to the table in final paragraph (a). As previously discussed, BSEE revised introductory paragraph (b) to refer to "design documents" instead of "diagrams." BSEE is revising some of the details in the table in final paragraph (b) from the proposed paragraph (b). BSEE is combining the cable schedule that was referenced in proposed paragraph (b)(1)(ii) into final paragraph (b)(1)(i); as an example of the information that needs to be provided with the cable tray/conduit routing plan. Proposed paragraph (b)(1)(iii) will become paragraph (b)(1)(ii) in the final rule and has been revised to state that the panel board/junction box location plan needs to be included with the additional electrical system information only if it "is not shown on the area classification diagram required in § 250.842(a)(3)." BSEE is also removing the requirement in paragraph (b)(2) for the diagram to include "the method and frequency of calibration" for the fire and gas detection systems. As previously discussed, the operator will still be required to develop and maintain all of the supporting diagrams in final paragraph (b) and provide them to BSEE upon request. BSEE is revising final paragraph (b)(3) was revised to be consistent with the final language in paragraph (a)(4), addressing "revised piping and instrumentation diagrams," including "a detailed flow diagram." However, as was proposed, these diagrams will no longer require review,

approval, and stamping by an appropriate registered PE. This change will reduce the burden on operators by no longer requiring a PE to certify as many diagrams and drawings. Operators are still required to develop these diagrams and drawings and provide them to BSEE upon request. The operators are also still required to maintain them and to ensure they accurately reflect the current production system.

Paragraph (c)

BSEE is revising final paragraph (c) from proposed paragraph (c). In final paragraph (c)(1), BSEE changed "electrical installations" to "electrical systems." Final paragraph (c)(2) includes a number of revisions pertaining to the requirements regarding the involvement of the professional engineer. BSEE changed "reviewed, approved, and stamped by an appropriate registered professional engineer" to "sealed by a licensed professional engineer." Paragraph (c)(2) of the final rule clarifies that only the modifications are required to be sealed by a licensed professional engineer. BSEE made this change in response to comments and recognizes that PEs can only stamp or seal those documents that were developed under their direct supervision; therefore, a PE would not be able to stamp or seal diagrams that were previously developed by someone else. Paragraph (c)(3) is finalized as proposed.

Final paragraph (c) continues to require operators to certify that: (1) All electrical systems were designed according to API RP 14F or API RP 14FZ, as applicable; (2) that a licensed professional engineer seal the design documents for the mechanical and electrical systems that operators are required to submit under paragraph (a) of this section. For modified systems, a licensed professional engineer(s) is required to seal only the modifications. The professional engineer must be licensed in a State or Territory of the United States and have sufficient expertise and experience to perform the duties; and (3) a hazards analysis was performed in accordance with § 250.1911 and API RP 14J (incorporated by reference in § 250.198); and that the operator has a hazards analysis program in place to assess potential hazards during the operation of the facility. The final rule adopts the proposal to revise redesignated paragraph (c)(2) of § 250.842 to state that a licensed professional engineer must seal the design documents for the mechanical and electrical systems that the operator

is required to submit under paragraph (a) of this section.

Paragraph (d)

BSEE revised final paragraph (d) from the proposed rule. The final rule will provide operators "90 days after placing new or modified production safety systems in service" to submit the as-built diagrams required in this section to the District Manager. The existing regulations and the proposed regulatory text provide 60 days for submitting these diagrams. BSEE also clarified that this time period applies "after placing new or modified production safety systems in service" instead of 60 days after "production commences," as in the current regulations and proposed rule.

Under the existing paragraphs (d) and (e), operators are required to certify that the as-built diagrams are on file and stamped by a PE and to submit the as-built diagrams for the new or modified production safety systems to BSEE. The proposed rule would have modified paragraph (d) to continue to require that operators submit PE-stamped as-built diagrams, while removing the requirement of a separate certification. Based on comments, BSEE is revising the final rule from the proposed in several respects. First, paragraph (d) in the final rule changes the timing of the submittal of the as-built diagrams from 60 to 90 days. Second, BSEE is revising the final paragraph (d) from the proposed to require that the operator must submit a letter to the District Manager certifying that the as-built diagrams were reviewed for compliance with applicable regulations and accurately represent the new or modified system as installed. BSEE intends that this requirement for a certification from the operator will serve the same function as the existing and proposed rule's requirement to have the as-built diagrams PE-stamped. Moreover, it will preserve the intent of the current rule to make the operator responsible for submitting reliable, accurate as-built diagrams. Third, and related, the final rule removes the requirement to have as-built diagrams PE-stamped. This is one of a number of provisions in this final rule that recognize the limitations of a PE's ability to stamp or seal documents. The existing regulations required stamping of the "as-built" diagrams. As-built diagrams show the final system that actually was constructed. Per PE licensing requirements, the PE would need to be present during the entire building/construction process to stamp those documents. Since the PE is not present for all the work that goes into building and installing production

systems, requiring a PE stamp on an as-built diagram is not a realistic way to meet the goals of this paragraph. However, the critical design documents, those required under § 250.842(a), continue to require a PE stamp (§ 250.842(c)(2)) under this final rule.

Paragraphs (e) and (f)

As proposed, BSEE is redesignating the existing paragraph (f) as paragraph (e), since the requirements from existing paragraph (e) were moved to new paragraph (d). Although BSEE did not propose any changes to the substance of existing paragraph (f), BSEE revised the text in final paragraph (e), based on comments, to clarify requirements related to maintaining the documents required under § 250.842(a) and (b) and how to make those documents available to BSEE. In the final rule, BSEE revised final paragraph (e) to specifically reference the “approved and supporting design documents” required under § 250.842(a) and (b), instead of referencing “information concerning the approved designs and installation features.” This is a clarification and ensures the operator maintains the appropriate required documents, including copies of the documents submitted to BSEE under paragraph (a) and the additional documents the operator is required to develop and make available to BSEE upon request in paragraph (b). The requirement for the operator to maintain these documents at the “offshore field office nearest the OCS facility or at other locations conveniently available to the District Manager” did not change. This allows the operator to determine the appropriate location to store these documents. In the final rule, BSEE is removing the provision specifically requiring operators to maintain the as-built piping and instrumentation diagrams at a secure onshore location and the requirement to have those documents readily available offshore. Piping and instrumentation diagrams are now included within the storage requirements of the revised first sentence of the paragraph, as they are required in paragraphs (a) and (b) of this section. The provisions requiring that these documents must be made available to BSEE upon request and must be retained for the life of the facility did not change. The provision that all “approvals” are subject to field verifications (*i.e.*, during inspections) was clarified to refer to “approved designs.”

Additional details on these changes are discussed in the following comments and responses.

Design Documents

Comment: A commenter recommended that BSEE clarify the provisions in paragraph (a) of this section by changing the first sentence to read, “You must submit a production safety system application to the District Manager to install or modify a production safety system.” The suggested revision removes the word “before” from the proposed provision that would require operators to submit their production safety system applications before installing or modifying a production safety system. This commenter also suggested that BSEE was not using the terms “information,” “diagrams,” and “designs” consistently when describing the required diagrams, charts, schematics, plans, and schedules. The commenter expressed concern that imprecise and/or inconsistent language is undesirable in a regulation and recommended that BSEE consistently use the term “design documentation” or “design documents” when referring to the collective documents that are addressed in this section.

Response: BSEE disagrees with the commenter’s suggestion on revising the first sentence of paragraph (a) of this section. The suggested revision would remove the word “before” from the provision, so that it would only state that the operators must submit a production safety system application to BSEE, without addressing the timing of that submission. The proposed revisions to the current language regarding the submittal of the production safety system application would ensure that BSEE receives the production safety system application prior to an operator installing or modifying the production equipment. The current regulations state, “[b]efore you install or modify a production safety system, you must submit a production safety system application to the District Manager for approval.” The current provision did not explicitly state when the system or modifications to the systems must be approved, even though the intent of this existing language was that the operator would receive approval before installing or modifying the system. While the regulatory language will continue to state that the operator must submit the application before installing or modifying the system, the final rule states that the District Manager must approve the production safety system application before the operator commences production through or utilizes the new or modified system. This not only clarifies the timing of the required approval, but also facilitates

timely approval of the application by allowing BSEE to begin review as soon as possible and to review while the operator is installing or modifying the system. The commenter did not include a reason for suggesting this change, but BSEE does not see this timing as an issue as all of the design drawings must be submitted before the operator begins to install or modify the system, under the current and revised regulations. If the application is submitted later, the operator may be ready to start production before BSEE has reviewed and approved the applications.

BSEE agrees with the commenter’s other suggested revision to consistently use a single term to refer to the documents that are required under this section. BSEE replaced the words “information” and “diagram” with “design documents” in paragraphs (a) and (b) of the final rule. This consistent use of the more inclusive term adds clarity and reduces potential confusion.

Piping Specification Breaks

Comment: A commenter recommended that the information identified in proposed paragraph (a)(1)(ii), “piping specification breaks, piping sizes” should be included in paragraph (a)(1)(vii), because the content included with piping specification breaks, piping sizes overlaps with the information on “size and maximum allowable working pressures” that is currently required in paragraph (a)(1)(vii).

Response: BSEE agrees with the recommended change and revised the language in the final rule as suggested.

Metering Devices

Comment: A commenter recommended that BSEE remove “metering devices” from paragraph (a)(1)(iv). The commenter asserted that metering devices are considered instrumentation, and size, capacity, and working pressures of metering devices are typically not included on SAFE charts.

Response: BSEE disagrees with this commenter’s recommendation to remove “metering devices” from proposed paragraph (a)(1)(iv), now final paragraph (a)(1)(iii). The paragraph addresses requirements for both SAFE charts and the safety flow analysis diagram. Operators would include the metering devices on the safety flow analysis diagram, not the SAFE chart. We agree that metering devices should not be included on the SAFE chart.

Chemical Injection Systems

Comment: A commenter recommended that BSEE exempt

chemical injection systems that have less than 770 gallon storage capacity from proposed § 250.842(a)(1)(vi) (which is paragraph (a)(1)(v) in the final rule). The paragraph, as proposed, would require the operator to include the size, capacity, and design working pressures of all hydrocarbon-handling vessels and chemical injection systems handling a material having a flash point below 100 degrees Fahrenheit for a Class I flammable liquid on the safety flow analysis diagram. This commenter asserted that, for the majority of the Gulf of Mexico shelf facilities, the storage capacity of the injection system is often less than 260 gallons. The commenter stated that, for the majority of the chemicals used, the flammability of the products is lessened extensively due to dilution with water and blending of the chemical, reducing the actual flammability of the total product. In addition, the commenter stated that these low volume chemical systems do not present the same hazards as atmospheric hydrocarbon process vessels, and that process vessels have the potential for constant in and out flow of hydrocarbons under pressure. The commenter asserted that, under API RP14C, low volume chemical systems are already analyzed and protected on the facility, and that adding these systems to the facility drawings will not enhance safety or reduce risk.

Response: BSEE disagrees. Tanks and pumps that are tied into the production system should be analyzed on the safety analysis flow diagram (SFD).

Atmospheric vessels are used for processing and temporary storage of liquid hydrocarbons, including flammable chemicals. Even a 260 gallon tank containing flammable liquid is a potential hazard when tied to the production system. Although API RP 14C requires analysis of these risks, BSEE still needs to be able to review tanks of all sizes that are connected to the production system.

Battery Banks

Comment: BSEE received a comment recommending that BSEE remove the term “battery banks” from the list of items included on electrical one line drawings. The commenter stated that battery banks would exist on a direct current system, while everything else is 120 volt alternating current and higher. The commenter asserted that BSEE’s decision to remove “including the safety shutdown system” from the definition that was previously found in § 250.842(a)(3)(iii) supports this change.

Response: BSEE partially agrees with this comment. BSEE needs drawings depicting the location of the battery

banks associated with the UPS, however it is not necessary to include other battery banks. Consequently, BSEE revised the language in final § 250.842(a)(2) to clarify that the design drawings need to show the UPS and the associated battery banks.

Updating Electrical One-Line Drawings for Existing Facilities

Comment: A commenter recommended that BSEE add language in § 250.842(a)(2) to exempt existing OCS facilities from the requirement to provide the electrical one-line diagram until a major modification is made to the electrical system. The commenter noted that many existing facilities have changed ownership several times over the years and that the original documents such as electrical one-line drawings are unavailable or have not been updated to reflect modifications after the initial installation and submittal. According to the commenter, BSEE has not requested these documents when facility modifications were submitted for approval; therefore, they have not been generated or produced. The commenter asserted that updating or creating new drawings to this level of detail along with engineering certifications is very expensive and, in some cases, will result in facilities becoming uneconomical. The commenter also asserted that, for existing facilities, the electrical one-line drawings should only be required when major modifications are made to the facility’s electrical system.

Response: BSEE disagrees. Since 1988, the regulations (formerly § 250.122(e)(4)(ii) and (e)(5), 63 FR 10596) have required operators to certify that the electrical system design was approved by a registered PE.

OCS Order number 8, Platforms, Structures, and Associated Equipment (effective October 1, 1976), included requirements for electrical system information, including certification by the operator “that the mechanical and electrical systems of the facility will be designed and installed under the supervision of appropriate registered professional engineers.” (OCS Order number 8, section 3, paragraph B(2)).

Out of date electrical drawings pose a major safety risk. The primary substantive change made in the 2016 rulemaking was the addition of the requirement for submission of a PE stamped diagram. Since 2016, BSEE has granted some departures to allow operators additional time to comply. BSEE did not propose to change the current requirements with respect to whether or not existing facilities need to

submit or maintain electrical design documents, and therefore BSEE believes the commenter’s recommendation is beyond the scope of this rulemaking. Moreover, operators have had enough time to come into compliance with this requirement.

Identification of Control Rooms and MCC Buildings

Comment: A commenter stated that the identification of control rooms and MCC buildings is not included in API RP 500 or API RP 505 and recommended that BSEE remove those items from § 250.842(a)(3)(ii).

Response: BSEE disagrees. While control rooms and MCC buildings are not specifically identified in API RP 500 and API RP 505, buildings generally are identified. However, we revised the final regulatory text in § 250.842(a)(3)(ii) to identify these as examples of buildings that need to be included.

Clarification of Terminology in (a)(4)

Comment: A commenter recommended revising § 250.842(a)(4) to replace the phrase “schematic piping and instrumentation diagram” with “detailed flow diagram which shows the piping and vessels in the process flow, together with the instrumentation and control devices” to provide better clarity.

Response: BSEE partially agrees with the commenter and revised the final regulatory text in paragraph (a)(4), under the “details/additional requirements” section, to read “detailed flow diagrams.” However, BSEE is leaving the reference to “piping and instrumentation diagram” as the general title for the type of document operators must submit under (a)(4), and removing the modifier “schematic,” since it is unnecessary.

Requirements for Maintaining Documents Are Burdensome

Comment: A commenter stated that paragraph (b)(1)(i) is unduly burdensome to operators of older facilities, in cases where these drawings were either never created or were used only for the initial fabrication. The commenter also questioned the need for the cable schedule required by paragraph (b)(1)(ii), because the cable tray/conduit routing plan should provide the relevant information. The commenter recommended that BSEE add the items in paragraph (b)(1)(iii) to the requirements for an area classification drawing in § 250.842(a)(3) to prevent the need for multiple drawing sets.

Response: BSEE disagrees. Because the design documents in this paragraph

were already required to be submitted to BSEE (since the 2016 rulemaking), the requirement to prepare and maintain them was implicitly also required.

Cable Schedule

Comment: A commenter recommended that BSEE remove the requirement for the “cable schedule” associated with additional electrical system information under § 250.842(b)(1)(ii).

Response: BSEE agrees and moved the requirement for the cable schedule to be included with the cable tray/conduit routing plan under (b)(1)(i) of that paragraph.

Panel Board and Junction Box

Comment: A comment recommended that BSEE add a statement to paragraph (b)(1)(iii) that the panel board and junction box location plan does not have to be included with additional electrical system information, if that information is not shown on the area classification drawing required in § 250.843(a)(3).

Response: BSEE agrees, the panel board and junction box location plan does not need to be included with both sets of information, and revised the text in final paragraph (b)(1)(ii) as suggested.

Method and Frequency of Calibration

Comment: A commenter recommended revising § 250.842(b)(2) to remove the phrase “and the method and frequency of calibration” as it is redundant with testing requirements in § 250.880. The commenter also stated that the methods and frequency of calibration for these devices are specified in API RP 14C and § 250.880(c)(3).

Response: BSEE agrees with the comment. Other requirements, including § 250.880(c)(3)(ii), prescribe the method and frequency of calibration. Accordingly, BSEE revised the final regulatory text to remove that phrase.

Detailed Flow Diagram

Comment: A commenter recommended that BSEE revise paragraph (b)(3), using more precise language for the revised piping and instrumentation diagrams for existing facilities, suggesting “detailed flow diagram.”

Response: BSEE agrees the use of the phrase “detailed flow diagram” better defines the information that the operator needs to include on the revised piping and instrumentation diagram and made the suggested revision in the final rule.

Electrical Installations

Comment: A commenter recommended that BSEE revise paragraph (c)(1) to refer to “electrical systems” instead of “electrical installations,” stating that this language is more precise.

Response: BSEE agrees that electrical systems is more appropriate terminology for the information that the operator needs to certify in the production safety system application, and made the suggested revision in the final rule.

Professional Engineer Terminology

Comment: A commenter recommended revisions to BSEE’s language regarding professional engineers in § 250.842(c)(2), suggesting that statements regarding documents being “reviewed, approved, and stamped by an appropriate registered professional engineer” should be replaced with language stating the documents “are sealed by a licensed professional engineer(s).” The same commenter recommended that BSEE only refer to “permanent” modifications in this section.

Response: BSEE agrees that the term “sealed” implies that the document was reviewed and approved and that including those terms is redundant. We also agree that the word “licensed” is more appropriate to use. BSEE made these suggested revisions in the final rule. However, BSEE does not agree with the addition of the word “permanent” to the language on modifications, as the term “permanent” is subjective.

As-Built Diagrams

Comment: Multiple commenters stated that the requirement for sealing of as-built design documents in § 250.842(d) places a significant undue burden on industry by requiring the PE to be present at all times during all phases of construction over extended periods of time, and multiple locations. Commenters stated that the intent of as-built design documents is to ensure that the final design documents accurately reflect what was installed on the location. The commenters recognized the importance of having accurate drawings and BSEE’s desire to ensure that facility drawings are the most recent version.

Another commenter also requested that BSEE revise the required time period in which an operator must submit “as-built” diagrams from 60 days to 90 days to allow operators time to perform a thorough verification of the diagrams.

Response: BSEE agrees with the commenter’s suggestion that 30 extra days will allow the operator to better verify the designs, which will ensure that BSEE receives accurate as-built drawings and made the suggested revisions in the final rule. BSEE also agrees with the assertion that the proposed rule’s requirement for PE sealing of as-built diagrams is unduly burdensome for the reasons suggested by the commenters. A PE may not stamp a document unless the work reflected therein was performed under his or her direct oversight, which for as-built diagrams would require the PE’s physical presence, at potentially multiple locations, over potentially extended periods of construction and installation. This is not a realistic method for achieving the ultimate goal of ensuring that BSEE has access to reliable and accurate as-built diagrams. As the commenters recognize, it is nonetheless important to retain a requirement in the regulation to reach this goal. In light of these comments, BSEE believes that a revised version of the requirement in the current regulation for operators to certify these drawings is appropriate. Accordingly, the final rule is removing the language in the current rule that requires the operator to certify that the drawings were stamped by a PE and replacing it with language stating that the operator must certify that the drawings have been reviewed for compliance with applicable regulations and accurately represent the new or modified system as installed. BSEE also retained the requirement for the as-built diagrams to be submitted to BSEE and added language requiring the drawings to be clearly stamped or marked as “as-built.”

Documentation Requirements

Comment: Multiple commenters recommended revisions to proposed paragraph (e) of § 250.842 to improve clarity, proposing to add language to refer specifically to the design documents and the piping and instrumentation diagrams. A commenter also recommended removing the requirement that the operator make these documents available to BSEE upon request and that the documents should be retained for the life of the facility.

Response: BSEE partially agrees with the recommended revisions. BSEE revised paragraph (e), as recommended in referring to the supporting design documents. However, BSEE does not agree with removing the requirement that the operator make the documents available to BSEE upon request and that

the documents should be retained for the life of the facility.

Requirements for Safety System Design Documents

Comment: A commenter was concerned that the proposed changes in § 250.842(a) would relax requirements related to safety system design documents that must be submitted and the requirements for certain documents to be stamped by a registered PE. The commenter asserted that BSEE proposed eliminating the requirement for a PE to review and stamp drawings on existing facilities and that the proposed revisions would only require the PE review and stamp on new facilities or substantial changes to existing facilities. The commenter further stated that the proposed regulation did not specify any training or qualifications to do this work that would no longer be performed by a PE. The commenter noted that the PE requirement in the current regulations was a result of lessons learned from the Atlantis investigation report on “BP’s Atlantis Oil and Gas Production Platform: An Investigation of Allegations that Operations Personnel Did Not Have Access to Engineer-Approved Drawings.” This report recommended that engineering documents should be stamped by a registered Professional Engineer, that operators certify that all listed diagrams including piping and instrumentation diagrams (P&IDs) are correct and accessible to BSEE upon request, and that all as built diagrams should be submitted to the District Managers.

Response: BSEE proposed and is now finalizing revisions to the regulation to require that the information required as part of the P&IDs in the current regulations must be submitted as part of the safety flow analysis, which requires a PE stamp.

BSEE understands the importance of the *Atlantis* report and recognizes that, although the *Atlantis* report did not make specific recommendations for revisions to subpart H, several of the important issues identified in the report are relevant to the subpart H regulations. Based upon BSEE experience with the implementation of the original 2016 PSSR and review of the requirements of the existing paragraph (a) (and the proposed requirements in paragraphs (a) and (b)), BSEE determined that the documents required under paragraph (a) of this final rule are appropriate to be sealed by a licensed PE. According to paragraph (c)(2) of § 250.842, BSEE requires the PE to be licensed in a State or Territory of the United States and have sufficient

expertise and experience to perform the duties.

All items required by paragraph (a) of this section must be submitted to BSEE. The diagrams required in paragraph (b) of this section are not required to be submitted to BSEE, however, they must be available to BSEE upon request. The operator will still be required to develop and maintain these diagrams to accurately document any changes made to the production systems.

Regarding the commenter’s concern that BSEE is eliminating the requirement for a PE to review and stamp drawings on existing facilities; per PE licensing requirements, a licensed PE cannot stamp design drawings that were not developed under their direct supervision. If the documents for an existing facility were not sealed by a licensed PE or are no longer available, BSEE cannot require a PE to certify that the existing facility was built according to the applicable requirements without the PE violating the terms of the PE license. A PE can seal documents related to modifications of an existing facility, but only for those modifications that were developed under that PE’s direct supervision.

As for the commenter’s assertion that the proposal lacked any specification for training or qualification requirements for those who would prepare the documents listed in paragraph (b), BSEE does not think that such specification is necessary. As previously explained, a PE is still required to direct and certify the design of all the production safety systems. The documents in paragraph (b) include specific details related to the same systems that are described in documents required under paragraph (a). This rulemaking is not changing the basic fact that all of these systems must be designed under the oversight of a PE. Rather, this rulemaking is reducing the number of documents that the PE must stamp and that the operator must submit to BSEE with a PE’s stamp.

P&IDs

Comment: A commenter was concerned that the proposed regulations would eliminate the requirement for operators to submit a P&ID to BSEE for existing facilities. The commenter noted that in the case of a serious incident or disaster, it is important for BSEE to have an up-to-date drawing of the facility. The commenter recommended that BSEE not wait for a disaster and then request a drawing from the operator, as this could cause delays in making decisions regarding safety and spill prevention and response. The commenter stressed that BSEE did not provide any explanation why existing

facilities should be removed from the requirements for meeting the PE approval or the submission of a piping and instrumentation diagram, asserting that older, existing facilities are likely a higher risk. The commenter stated that it is critical for BSEE to have access to these drawings during inspections, and incidents, and to ensure older, existing facility drawings are being updated to incorporate facility changes. The comment stated that BSEE did not provide adequate justification to eliminate these requirements and doing so would pose serious environmental and safety risks.

Response: BSEE did not propose to eliminate the requirement to submit the information that is required in the P&IDs under existing § 250.842(a)(1). Under the proposed rule and this final rule, the documentation requirements are reorganized and the information required in the P&ID under the existing regulations is still required as part of the SFD (per API RP 14C, Annex B) and the SAFE chart (per API 14C, section 6.3.3). These diagrams still require a PE seal for new facilities and modifications on existing facilities. Operator certification that the electrical system design was approved by a registered PE has been required in regulations since 1988 (63 FR 10596, see § 250.122(e)(4)(ii) and (e)(5)). In addition, OCS Order number 8, effective October 1, 1976, included requirements for electrical system information, including certification by the operator “that the mechanical and electrical systems of the facility will be designed and installed under the supervision of appropriate registered professional engineers.” (OCS Order 8, section 3. B. (2)). The 2016 rule added the requirement that the operator submit the PE stamped designs for specific mechanical and electrical systems. BSEE granted some departures to allow operators additional time to comply.

However, requiring operators to submit documents that are stamped by a licensed PE for existing facilities is often not possible. Per PE licensing requirements, a licensed PE cannot stamp design drawings that were not developed under his or her direct supervision. If a licensed PE did not seal the documents for an existing facility or if they are no longer available, BSEE cannot require a PE to certify that the existing facility was built according to the applicable requirements without the PE violating the terms of the PE license. A PE can seal documents related to modifications of an existing facility, but only for those modifications that were designed under that PE’s direct supervision.

Requirement for Professional Engineers

Comment: A commenter asked how BSEE would ensure safety without the requirements in § 250.842 for a Professional Engineer to conduct these technical reviews. The commenter was concerned that this work would now be completed by less qualified, in-house company personnel, lacking a PE license. The commenter inquired about who within the companies would have sufficient expertise and experience to perform the review and who within each company will assure BSEE that the equipment is designed and maintained during its entire service life with an acceptable degree of risk. The commenter cited the BP Oil Spill Commission recommendation that “government agencies that regulate offshore activity should reorient their regulatory approaches to integrate more sophisticated risk assessment and risk management practices into their oversight of energy developers operating offshore.” The commenter noted that third party certification provides this type of approach, and the Commission specifically recommended regular third-party audits and certification. (BP Oil Spill Report at p. 253). The commenter asserted that this change is a serious rollback of safety and environmental protections.

Response: BSEE disagrees that the proposed changes to the production safety system applications will result in a serious rollback of safety and environmental protections. As with any technical project, it is the responsibility of the operator to assign appropriate staff to the project. However, the documents for which BSEE will no longer require PE stamping are not the primary design documents; these documents provide additional details and information and are developed in conjunction with the documents that require a PE stamp. Further, the PE used for the documents required under this section does not need to be a third party under either the existing regulation or this final rule, and this section was never intended to be a third party certification requirement. Therefore, the commenter’s concerns that the documents required under this final rule section would be developed by less qualified, in-house personnel are misplaced.

The commenter cited a BP Oil Spill Commission report recommendation that agencies adopt “risk assessment and risk management practices.” This commenter further offered third-party audits and certifications as examples of those practices. Those recommendations are part of that report, however, the

third-party audit and certification recommendation was made specifically in reference to SEMS. SEMS programs are required by BSEE regulations under 30 CFR part 250, subpart S, and represent performance based approach for all offshore oil and natural gas operations. The use of a PE is not a risk-based approach. The engineer is verifying compliance with various regulations, codes, and standards; this does not necessarily involve a risk assessment or analysis. As discussed previously, BSEE is implementing other risk-based approaches in its oversight of offshore oil and gas operations.

Requirements for Profession Engineers

Comment: A commenter asserted that some of the proposed revisions to § 250.842 seek to remove the very provisions that were added to specifically rectify the causes of the *DWH* explosion. The commenter cited the summary in the proposed rule that stated that “this proposed rule would fortify the Administration’s objective of facilitating energy dominance through encouraging increased domestic oil and gas production, by reducing unnecessary burdens on stakeholders while maintaining or advancing the level of safety and environmental protection.” This commenter stated that the recommended revisions in the proposed rule would endanger rather than advance the level of safety and environmental protection. The comment discussed the proposed revisions to some of the requirements related to the diagrams and drawings the operators must submit to BSEE for approval.

The commenter noted that PEs have specific experience, qualifications, and education that enables them to provide the critical engineering expertise to identify potential safety and environmental risks. The existing rules were implemented to ensure that PEs utilize their engineering skills to achieve compliance and incorporate the necessary safety measures that will mitigate the likelihood of future disasters like the *DWH* explosion. The commenter stated that the need for these standards and the highest level of expertise is particularly great at this time given that, according to energy research firm Wood Mackenzie, oil and gas production could reach an all-time high in the Gulf of Mexico.

This commenter strongly urged BSEE to retain all of the requirements for PEs in its revised rulemaking.

Response: BSEE disagrees with the main assertions made by this commenter. This commenter conflated the 2017 proposed rule with a planned proposed rule related to well control

issues that rulemaking was still under development when BSEE publish the NPRM for this rulemaking. Operators use the production safety systems covered under this rulemaking in production operations, not in well operations (drilling, completions, workovers, and decommissioning). The *DWH* incident was related to a well operation, not a production operation, and the reports and recommendations related to *DWH* focused on well control during well operations, not production operations. BSEE does not recommend applying the recommendations from the *DWH*-related reports to production operations without careful consideration to ensure that those recommendations are appropriate to apply to production.

The commenter raised concerns regarding the proposed changes to requirements for PE stamping of design documents. As noted in a previous response, BSEE is moving the information that is required by the current regulations for P&IDs to the SFD under this rulemaking, and the SFD will still require the PE seal. BSEE did remove requirements for a PE to stamp or seal certain design documents when modifying existing facilities. Some of those requirements would require a PE to seal work that was not performed under that engineer’s direct supervision, which would violate the terms of the professional engineer’s license.

BSEE will no longer require that certain documents for new facilities or modifications must be stamped or sealed by a professional engineer. The drawings that will no longer require the PE seal are not critical to personnel safety or the environment, but are supporting documents, providing additional information related to the safety critical design documents that will continue to be required to carry a PE seal.

Maintaining Required Documents

Comment: A commenter recommended specific changes to the provisions in § 250.842(e) for clarity. The commenter recommended moving the provisions regarding P&IDs to the first sentence in this section, instead of including them as a specific separate requirement. The commenter also recommended deleting the statement requiring that the operator make these documents available to BSEE upon request. The commenter did not explain the reasoning behind the specific changes, but stated the changes would improve clarity.

Response: BSEE partially agrees. BSEE recognized that it could revise proposed paragraph (e) to improve

clarity and did so, as previously discussed, although BSEE did not use the language the commenter suggested. Further, BSEE will not delete the sentence requiring documents to be made available to it upon request, as it needs ready access to these materials to fulfill its regulatory functions.

Pressure Vessels (Including Heat Exchangers) and Fired Vessels (Section 250.851)

Section summary: This section of the existing regulations includes requirements for the pressure vessels and fired vessels that are used in the production of oil and gas on offshore facilities. Requirements in the existing regulations include design requirements for equipment and relief valves, limits on equipment operating pressures, and specifications for pressure sensors.

As proposed, the final rule removes from this section references to compliance dates that have now passed—*i.e.*, the 2016 PSSR required existing uncoded pressure and fired vessels that were in use on November 7, 2016 (the effective date of the previous subpart H rulemaking), to be code stamped before March 1, 2018. These dates no longer need to be included, as they both have already passed as of the time of this final rulemaking. In addition, prior to the 2016 PSSR, the regulations already required most pressure vessels and fired vessels to be code stamped. The previous rulemaking only added vessels with an operating pressure greater than 15 psig to that requirement.

Small Hydraulic Accumulators and Pulsation Dampeners

Comment: A commenter suggested language to change § 250.851(a)(1) to make clear that small hydraulic accumulators and pulsation dampeners are not intended to be included in this section.

Response: BSEE disagrees; this clarification is unnecessary. The incorporated ASME BPVC states what equipment it covers. Therefore, BSEE is not changing the language in this paragraph.

Alternative Codes/Standards for Small Hydraulic Accumulators and Pulsation Dampeners

Comment: A commenter recommended the following language for § 250.851(a)(2): “Existing uncoded pressure and fired vessels, except small hydraulic accumulator and pulsation dampeners designed to alternative codes/standards; (i) with an operating pressure greater than 15 psig; and (ii) that are not code stamped in accordance

with the ASME Boiler and Pressure Vessel Code.”

Response: BSEE disagrees and will not approve the blanket use of alternative codes or standards without knowing which alternative code or standards will be used. If an operator believes an alternative standard provides an equal or greater level of safety and environmental protection as the criteria in the regulation, they can apply to use alternate procedures under the existing § 250.141.

Compliance Date for Code Stamping Pressure and Fired Vessels

Comment: A commenter suggested that January 1, 2019, should be set as the new compliance date for § 250.851(a)(2), rather than merely deleting the March 1, 2018 deadline. The commenter noted that the proposed deletion would imply that this requirement would take effect immediately upon publication of the final rule.

Response: Since this final rule is being published after March 1, 2018, the requirement is already in effect. This rulemaking is deleting the date because, after March 1, 2018, the reference in the regulation to that date is unnecessary. Removing this vestigial reference to a date that has already passed has no substantive effect; it merely removes now-superfluous regulatory text. BSEE does not believe a change to the timing of the effectiveness of the requirement from what had been established in 2016 is warranted. Operators have had since 2016 to plan to replace uncoded pressure vessels or to justify their continued use.

Size and Pressures Related to ASME Coded Relief Valves

Comment: A commenter suggested language for § 250.851(a)(3) to address concerns regarding the size and pressures related to ASME Coded relief valves.

Response: BSEE did not propose changes to § 250.851(a)(3). The suggested changes are outside the scope of this rulemaking and would require further review by BSEE. Therefore, this final rule is not changing this language.

Flowlines/Headers (Section 250.852)

As initially proposed, BSEE is changing the references in § 250.852(e)(1) and (4) from “API Spec. 17J” to “ANSI/API Spec. 17J,” which is the proper title of the standard as incorporated in the existing regulation. BSEE did not receive any comments on this section of the proposed rule.

Safety Sensors (Section 250.853)

Section summary: This section establishes requirements safety sensors, including shutdown devices, sensors with integral automatic reset, and pressure sensors. As was proposed, this section of the final rule includes requirements for shutdown devices, valves, and pressure sensors, including testing requirements. As was proposed, final § 250.853(d) requires that operators equip all level sensors to permit testing through an external bridle on all new vessel installations, where possible, depending on the type of vessel for which the level sensor is used.

As proposed, this section will be revised in the final rule to add a new paragraph (d) that requires that operators equip all level sensors to permit testing through an external bridle on all new vessel installations, where possible, depending on the type of vessel for which the level sensor is used. This change was originally proposed in the 2013 Notice of Proposed Rulemaking that led to the 2016 PSSR. However, it was not included in the final rule, based on concerns raised in public comments. The preamble of the 2016 final rule stated that BSEE removed proposed paragraph (d) from the final rule because BSEE can address level sensors adequately using existing regulatory processes, such as DWOPs and we do not need to specify uses and conditions of such sensors in the regulations.

Since the 2016 PSSR, BSEE has reconsidered this provision and determined that including this requirement in the regulations is important, because it clearly states the expectation to have an external bridle to permit testing. This ensures that, where possible, operators make the sensor accessible for testing, which is the accepted approach at this time. A comment on the proposed 2016 PSSR rulemaking asserted that certain sensor testing technologies (*e.g.*, ultrasonic and capacitance) were not suitable for use in external bridles and that some proposed or new projects evaluated using ultrasonic, optical, microwave, conductive, or capacitance sensors, which do not use bridles. BSEE recognizes that there are sensors that do not use bridles and that other equipment options exist. However, the use of a level sensor with an external bridle that allows testing through the bridle remains BSEE’s preferred approach. Sensor testing equipment built according to API standards, which BSEE’s regulations incorporate by reference, should be able to meet this provision. We therefore proposed

adding language to recognize other approaches, stating that operators must ensure that all level sensors are equipped to permit testing through an external bridle “where possible, depending on the type of vessel for which the level sensor is used.” Keeping this language in this final rule allows BSEE more flexibility in approving a different design, without requiring the operator to apply for an alternate procedure or equipment to test the level sensor under § 250.141.

Use of Phrase “Where Possible”

Comment: One commenter stated that the term “where possible” is ambiguous and open to a wide range of interpretations. The commenter suggested that the language in the proposed § 250.853(d) should be revised to state that this requirement does not apply if other level sensors are approved in the production safety systems applications.

Response: BSEE disagrees that the proposed change is necessary. BSEE determined that including this requirement in the regulations is important because it states the expectation to have an external bridle to permit testing. BSEE recognizes that there are sensors that do not use bridles and that other equipment options exist. However, the use of a level sensor with an external bridle that allows testing through the bridle remains BSEE’s preferred approach. The final language recognizes that other approaches are available and the modifier “where possible” allows BSEE more flexibility in approving a different design, without requiring the operator to apply for an alternate procedure or equipment to test the level sensor under § 250.141. BSEE does not believe that being more prescriptive in defining the circumstances that may qualify for this condition is the optimal approach for addressing the relevant circumstances.

Surface Pumps (Section 250.865)

Section summary: This section provides requirements of surface pumps related to protective equipment, pressure recording devices, and shut-in sensors.

Revision for Update of API RP 14C

Comment: Although BSEE did not propose any changes to this section, one commenter recommended the revision of the existing requirement in paragraph (a), if BSEE incorporated by reference the Eighth Edition of API RP 14C.

Response: No change is necessary at this time since BSEE is not incorporating the Eighth Edition of API RP 14C.

Consistency With § 250.870

Comment: Although BSEE did not propose any changes to § 250.865(d), one commenter recommended that, if the proposed changes in § 250.870 were adopted in the final rule, the text in § 250.865(d) should be changed to reference § 250.870 for consistency of implementation.

Response: No change is necessary at this time. Section 250.865(d) addresses when the pressure safety low (PSL) must be placed into service, while § 250.870 addresses time delays on those sensors. Although these are related, BSEE does not agree it is necessary to cross-reference all of the specific requirements that the PSLs or other sensors must follow throughout these regulations.

Temporary Quarters and Temporary Equipment (Section 250.867)

Section summary: This section of the existing regulations includes requirements for temporary quarters that are located in production processing areas or other classified areas. BSEE intends for these requirements to protect personnel located in these areas and to include the installation safety devices required by API RP 14C and approval by the District Manager.

As proposed, the final rule is revising paragraph (a) of this section to require District Manager approval of safety systems and safety devices associated with temporary quarters prior to installation. This applies to all temporary quarters to be installed on OCS production facilities. Existing regulations specify that the operator must receive approval for temporary quarters “. . . installed in production processing areas or other classified areas on OCS facilities.” The revisions will require approval of the safety systems and safety devices, instead of approval of the actual temporary quarters, regardless of where the temporary quarters are located. This change recognizes that risk of a hazard occurring related to production is not restricted to the production areas or classified areas. This change ensures that temporary quarters have the proper safety systems and devices installed to protect individuals in the temporary quarters, regardless of where they are located on the facility.

BSEE recognizes the authority of the United States Coast Guard (USCG) as the lead agency for living quarters on the OCS in two Memoranda of Agreement (MOA) between BSEE and USCG related to oil and gas production facilities: MOA OCS–09, Fixed OCS Facilities, dated September 19, 2014 and

MOA OCS–04, Floating OCS Facilities, dated January 28, 2016. MOA OCS–09 establishes BSEE as the lead for safety systems, specifically for emergency shutdown systems and gas detection on fixed OCS facilities. MOA OCS–04 establishes BSEE as the lead for emergency shutdown systems and components on floating OCS facilities. The existing requirement that operators equip temporary quarters with all safety devices required by API RP 14C (Appendix C) will not change. This paragraph ensures that operators will install the proper safety devices on or in temporary quarters, including fire and gas detection equipment and emergency shut down stations addressed in API RP 14C.

As proposed, BSEE is also adding a new paragraph (d) to § 250.867 of the final rule that states that operators must receive District Manager approval before installing temporary generators that would require a change to the electrical one-line diagram required under § 250.842(a).

Approval of Temporary Quarters

Comment: A commenter asserted that requiring District Manager approval before installation of temporary quarters is inconsistent with other similar requirements contained in subpart H. The commenter noted that § 250.842 requires submission for approval of drawings for installation or modification of production safety systems followed by submission of as-built drawings 60 days after production commences. The commenter states that District Manager approval is not needed to begin installation of these critical safety systems; however, production cannot commence until District Manager approval is received. The commenter recommended that BSEE should adopt a similar approach for temporary quarters. The commenter suggested language to revise the proposed text to require that the operator submit plans for the safety systems/safety devices to the District Manager before installing temporary quarters and that BSEE should approve the temporary quarters before they are occupied.

Response: BSEE disagrees. Temporary quarters are directly related to personnel safety, since they are used for living and sleeping. The nature of the use of temporary quarters necessitates the approval of the safety systems and safety devices before they are installed. Operators often install temporary quarters for a specific short term use, where timing is an important factor in planning. If operators install the quarters before the safety systems and safety devices are approved by the

District Manager, there is a risk that the use of the quarters could be delayed if BSEE delays its approval. Approval prior to installation provides for more certainty. BSEE also disagrees with the commenter's assertion that the approval of safety systems and safety devices on temporary quarters is similar to the approval and installation of production safety systems, because production safety systems need more lead time for installation.

Small Temporary Equipment

Comment: A commenter stated that it is not feasible to submit certain small temporary equipment meant for testing and maintenance to the District Manager for approval prior to installation and recommended that BSEE revise the final rule to limit this requirement to "major" temporary equipment.

Response: BSEE disagrees. BSEE needs to see all temporary equipment that is associated with the production process system, regardless of size, to ensure safety of the system. Therefore, BSEE has not adopted this recommendation in the final rule.

Approval of Temporary Generators

Comment: A commenter recommended that BSEE not finalize the proposed § 250.867(d). The commenter asserted that generators are a vital piece of equipment that provides power for living conditions and supervisory control and data acquisition (SCADA) systems, gas detection systems, fire detection systems, process systems, and safety/pollution control devices. The commenter stated that requiring BSEE approval prior to installing such a vital piece of equipment creates not only less than desirable living conditions but also loss of control of operations. The commenter noted further that an operator's SEMS program provides guidance and procedures for the installation of temporary or permanent equipment. The commenter noted that temporary generators result in a minimal impact to the overall safety system. The commenter stated that these generators are put in pre-designated electrical switchgear systems for auxiliary power while the primary generator is inoperable and sent in for repair, and that this spare switchgear breaker should already be identified on one-line electrical drawings.

Response: BSEE agrees with the comment, in part, but not with the commenter's conclusion. Not all temporary generators fall under the situation described in the comment. The final rule requires operators to seek approval only for temporary generators that are not already shown on the one-

line drawings. So the regulation does not apply to many of the situations raised in the comment. BSEE did not make any revisions to the regulatory text based on this comment.

Time Delays on Pressure Safety Low (PSL) Sensors (Section 250.870)

Section summary: This section of the existing regulations provides requirements related to time delays for pressure safety devices. The existing regulations provide a reasonable period for pressure to fluctuate before it becomes necessary to alert the operator to an abnormal condition that must be addressed.

The final rule is revising the requirement in paragraph (a) of this section regarding the use of Class B, Class C, or Class B/C logic. This section currently states that the operator "may apply any or all of the industry standard Class B, Class C, or Class B/C logic to all applicable PSL sensors installed on process equipment, as long as the time delay does not exceed 45 seconds." As proposed, BSEE is deleting the phrase "any or all of the" from that sentence in the final rule, as it is not needed. We will no longer require the operator to seek approval from BSEE for alternate procedures under § 250.141 to use a PSL sensor with a time delay that is greater than 45 seconds. Instead, the revised section states that if the device may be bypassed for greater than 45 seconds, the operator must monitor the bypassed devices in accordance with § 250.869(a). The alternate procedure approval is not needed, since monitoring bypassed devices is authorized in the current § 250.869(a).

Impact on Approved Departure Requests

Comment: Industry commenters requested clarification as to how the proposed revision to § 250.870 will impact departure requests that were issued under the current (2016) requirements for PSL time delays that are greater than 45 seconds.

Response: The changes in the final rule are consistent with departures approved by BSEE.

Suggested Revisions to § 250.870(a)(1)

Comment: Industry commenters stated that the examples given in § 250.870(a)(1) are non-API RP 14C devices, and on reciprocating compressors the timer typically is set for 90 seconds. Commenters suggested deleting the words "but not more than 45 seconds" since that is covered in § 250.870(a) or changing the example to "a hydrocarbon pump PSL sensor which typically clears in 15 seconds but before 45 seconds."

Response: BSEE disagrees with the suggested change, which is substantive and would require a new proposal and opportunity for comment. The language in the proposed rule and the final rule is consistent with long standing BSEE policy.

Monitoring Class C Safety Devices

Comment: Industry commenters recommended adding the following sentence at the end of § 250.870(a)(2) for clarification: "Class C safety devices while bypassed should be monitored until they are in full service."

Response: Although this was not part of the proposed rule, BSEE agrees with the comment. Class C devices, by their nature, allow the devices to be bypassed for more than 45 seconds. Therefore, we are including an express statement that, if a Class C safety device is bypassed, the operator must monitor the device until it is in full service. This is consistent with the language of revised § 250.870(a).

Suggested Revisions to § 250.870(a)(3)

Comment: Industry commenters recommended inserting the sentence, "They are often used for compressor discharge PSL(s) for the loading process" after the first sentence in § 250.870(a)(3) for clarification, and inserting "also" into the following sentence so that the paragraph reads "Class B/C safety devices have logic that allows for the PSL sensors to incorporate a combination of Class B and Class C circuitry. They are often used for compressor discharge PSL(s) for the loading process. These devices are also used to ensure that the PSL sensors are not unnecessarily bypassed during startup and idle operations (e.g., Class B/C bypass circuitry activates when a pump is shut down during normal operations). The PSL sensor remains bypassed until the pump's start circuitry is activated and either:"

Response: BSEE disagrees. The suggested revision does not add value and thus no change was made in the final rule. There is no need to identify every possible application of these sensors and the use that is identified in the regulatory text is not exclusive. The purpose of this regulation is to direct how these sensors are to be used, not the circumstances under which they are to be used.

Suggested Revisions to § 250.870(a)(3)(i)

Comment: Industry commenters stated that, with regard to § 250.870(a)(3)(i), Class B/C timers are used on Compressor discharge PSL(s), turbine compressors typically take up to 3 minutes to clear the discharge PSL(s)

after loading the compressor, and reciprocating compressors can take more than 45 seconds. Commenters further stated that there are situations (Pigging Pumps, Equalization Pumps, Pipeline Pumps, etc.) where it takes longer than 45 seconds to build up line pressure and clear the PSL to normal operating pressure. Commenters recommended removal of the phrase "no later than 45 seconds from start activation," as this is covered under § 250.870(a), which allows going beyond 45 seconds provided the Class B timer is monitored and documented.

Response: BSEE disagrees with the suggested change. The language in § 250.870(a)(3)(i) defines what a Class B/C timer is, while the introductory language in § 250.870(a) states what actions the operator must take if the delay could exceed 45 seconds.

Recommendation To Delete § 250.870(b)

Comment: Industry commenters recommended that BSEE should delete existing § 250.870(b) because it is a duplicative requirement, stating that there are manual bypassing rules in § 250.869 that allow the bypass of a safety device for unlimited time periods provided that the operator is monitoring the sensing device and able to shut it in.

Response: BSEE disagrees because these sections are not duplicative. Section 250.869 establishes the general requirements related to monitoring bypassed devices, while § 250.870 addresses specific requirements for bypassing sensors in the absence of time delay circuitry.

Atmospheric Vessels (Section 250.872)

Section Summary: Paragraph (a) of the existing regulations requires operators to equip atmospheric vessels (except certain Department of Transportation (DOT)-approved transport tanks) that process or store liquid hydrocarbons (or other Class I liquids) with protective equipment identified in section A.5 of API RP 14C (Seventh Edition). Paragraph (b) of the existing section requires operators to ensure that all atmospheric vessels are designed and maintained to ensure the proper working conditions for Level Safety High (LSH) sensors and that LSH sensors on vessels with oil buckets are installed to sense oil levels in the buckets. Paragraph (c) of the existing section requires operators to ensure that flame arrestors are maintained to ensure proper functioning.

BSEE proposed to revise paragraph (a) to require that atmospheric vessels connected to the process system and that contain a Class I liquid must be reflected on the corresponding

drawings, along with the associated pumps. In addition, BSEE proposed to revise § 250.198 by updating the reference to API RP 14C, as used in § 250.872 and elsewhere, from the Seventh Edition to the Eighth Edition. BSEE proposed to revise paragraph (b) in order to (i) emphasize that operators or manufacturers must design LSH sensors on atmospheric vessels to prevent pollution (per § 250.300(b)(3) and (4)); and (ii) limit the existing requirement applicable to LSH sensors on vessels with oil buckets to newly-installed vessels only. BSEE also proposed to eliminate paragraph (c) as unnecessary and redundant with § 250.800. Based on consideration of public comments on this section of the proposed rule, BSEE made some revisions to the proposed text in this final rule to clarify the requirements for LSH sensors on vessels with oil buckets and to provide consistency with other parts of the regulations.

As was proposed, BSEE is revising paragraph (a) of this section to state that the operator must include on the design documents atmospheric vessels connected to the process system that contains a Class I liquid and the associated pumps, as required in § 250.842(a)(1) through (4) and (b)(3).

In the final rule, BSEE is also revising the existing provisions for oil LSH sensors in paragraph (b). The proposed provision stated that operators must design and install LSH sensors to prevent pollution. In the final rule, BSEE removed this provision from paragraph (b) and moved it to final paragraph (c), with revisions. In addition, the final rule, unlike the proposed rule, removes the provision from existing paragraph (b) that specifies that, for newly installed atmospheric vessels with oil buckets, operators must install the LSH sensor to sense the level in the oil bucket. This requirement regarding LSH sensors on oil buckets was overly prescriptive and too narrow, however new paragraph (c) preserves the intent of the existing requirement.

As proposed, BSEE is deleting existing paragraph (c) in the final rule. The existing paragraph added maintenance of flame arrestors and duplicates § 250.880(c)(3)(viii). BSEE is adding a new paragraph (c) to specifically address the design requirements for atmospheric vessels. The new provision in final paragraph (c) requires operators to design, install, and maintain all atmospheric vessels to prevent pollution, as required under § 250.300(b)(3) and (4). BSEE added this language, which was not in the proposed rule, to clarify that the

pollution prevention requirements of those paragraphs apply to all atmospheric vessels, including atmospheric vessels that have oil buckets. It reflects existing requirements and does not constitute a substantive change.

API RP 14C and Corresponding Drawings

Comment: Some commenters made suggestions for changes to this section to address changes in the numbering in the Eighth Edition of API RP 14C from the Seventh Edition. In addition, some commenters recommended that paragraph (a) should be more specific when referencing "corresponding drawings" and recommended that BSEE replace that term with "design documents listed in § 250.842(a)(1) through (4) and § 250.842(b)(3)."

Response: The commenters' suggestion regarding revising the reference to section A of RP 14C is moot because, as explained elsewhere in this final rule, BSEE has decided not to finalize the incorporation of the Eighth Edition of API RP 14C at this time. BSEE agrees with the comment that the proposed revision regarding "corresponding drawings" needed clarification, and has replaced that term in the final rule with the phrase recommended by the commenters; this is also consistent with changes made in § 250.842.

Location of LSH Sensor

Comment: Some commenters asserted that the location of the LSH sensor in proposed paragraph (b) is not the most relevant criterion [for preventing spills], and that installing an LSH sensor in the oil bucket would not necessarily ensure that oil will not carry over and spill. Those commenters stated that the most important factor is that the vessel should be designed to prevent pollution, and they noted that many atmospheric vessels are designed with the LSH sensor in the tank itself and are capable of preventing spillage. Thus, the commenters recommended that BSEE change the proposed revisions to paragraph (b) to include performance-based language to read: "You must ensure that all atmospheric vessels installed are designed and maintained to ensure the proper working conditions for LSH sensors. The LSH must be designed and installed in such a way to prevent pollution. The LSH sensor bridle must be designed to prevent different density fluids from impacting sensor functionality."

Response: BSEE agrees with most of the commenters' concerns and with most of commenters' suggested changes

to proposed paragraph (b), except that BSEE has determined that more clarity is appropriate in order to prevent confusion and uncertainty regarding what “prevent pollution” entails. Accordingly, BSEE revised the language in the final rule to address the design of all atmospheric vessels to prevent pollution, including, but not limited to, the displacement of oil out of an overboard water outlet, as previously described. As with the proposed rule, this change to the regulation would not substantively change the existing requirements.

Elimination of Existing Paragraph § 250.872(c)

Comment: Two commenters agreed with the proposed elimination of existing paragraph (c) from § 250.872. One of those commenters pointed out that paragraph (c) is unnecessary in light of the broader testing provision in § 250.880(c)(3)(viii).

Response: BSEE agrees that the proposed elimination of the existing paragraph (c) is appropriate and the final rule eliminates that paragraph. BSEE has reorganized and simplified the remaining requirements of that section in the final rule by adding a new paragraph (c) that addresses requirements for atmospheric vessels.

Exempting Small Atmospheric Vessels

Comment: One industry commenter recommended that paragraph (a) of the rule exempt small atmospheric vessels (*i.e.*, with design capacity of 770 gallons or less) from the safety equipment requirements of this provision, asserting that those requirements are not practical for such small vessels and the risk posed by small vessels do not warrant the expense. The commenter added that such a volume threshold would exempt most offshore tote tanks, which have historically been considered to be temporary equipment. The same commenter also requested that BSEE limit the applicability of the requirement in paragraph (b) regarding design and maintenance of atmospheric vessels to ensure proper working conditions for LSH sensors to vessels “installed more than one year after the effective date” of the final rule, asserting that requiring that operators retrofit existing vessels with LSH sensors would not be justified by the risk.

Response: BSEE disagrees with both of these comments. With respect to an exemption in paragraph (a) for small vessels, these vessels contain liquid hydrocarbons or other Class I liquids, which are flammable. It is important to ensure these tanks are properly protected, regardless of size.

With respect to limiting paragraph (b) to new vessels installed at least one year after the effective date, BSEE notes that the basic requirement of paragraph (b) regarding proper working conditions for LSH sensors was added to § 250.872 by the 2016 PSSR; thus, operators have had ample time to comply or to address compliance issues. BSEE also notes that operators with vessels that were designed, but not installed, prior to the effective date of the 2016 PSSR may submit a departure request under § 250.142.

LSH Sensors Requirements for Newly Installed Equipment

Comment: A commenter stated that paragraph (b) should not mandate LSH sensors to address oil buckets on newly installed equipment. The commenter asserted that the language in existing paragraph (b) regarding oil buckets is too prescriptive and that compliance with the general design requirements in the remainder of paragraph (b) would be sufficient.

Response: BSEE agrees in general with the commenter’s belief that compliance with the other design requirements in proposed paragraph (b)—modified in the final rule, as previously described in response to a comment—would be sufficient to prevent pollution without the existing language regarding oil buckets. Accordingly, the final rule deletes the existing prescriptive language from the last sentence of paragraph (b), which would have been retained for new oil buckets under the proposed rule. The final rule includes more general design requirements in new paragraph (c), as previously described.

Subsea Gas Lift Requirements (Section 250.873)

Section summary: This section of the existing regulations addresses requirements for gas lift equipment used in subsea wells, pipelines, and risers. These requirements include: Designing gas lift supply pipelines according to API RP 14C, installation of safety valves, including a GLSDV, valve closure times, and periodic testing of gas lift valve systems.

As proposed, the final rule revises the table in paragraph (b) of this section to replace multiple references to API Spec. 6A with ANSI/API Spec. 6A.

Recommendation To Delete GLSDVs From SPPE

Comment: One commenter recommended revising the table in this section to delete GLSDVs from the list of SPPE.

Response: No change is necessary. BSEE did not revise § 250.801 or § 250.802 to delete GLSDVs as SPPE, for the reasons stated in those sections of this preamble. Therefore, a similar reference should be retained here for consistency.

Subsea Water Injection Systems (Section 250.874)

Section summary: This section of the existing regulations addresses requirements related to water flood injection via subsea wellheads. This includes adherence to API RP 14C for equipment that is located on platforms, the use of safety valves including a water injection valve and water injection shutdown valve, valve closure times, and testing of the water injection valve.

BSEE proposed to revise paragraph (g)(2) of this section to replace the references to API Spec. 6A with ANSI/API Spec. 6A. BSEE received no comments on this proposed revision, and the final rule implements the revision as proposed.

Fired and Exhaust Heated Components (Section 250.876)

Section summary: This section of the existing regulations contains inspection requirements for certain tube-type heaters to minimize the risks of potential safety issues for offshore personnel. As proposed, the final rule revises this section to delete the requirement to remove the fire tube during inspection. BSEE recognizes that there are other ways to inspect the fire tube, without removing it. For example, operators could use a combination of cameras with thickness sensors to inspect fire tubes that cannot be easily accessed, instead of removing the fire tube completely. This change allows the operator to determine an appropriate method to inspect the fire tube and is a more flexible, performance-based approach. BSEE recognizes the need for fire tube inspections; however, the process to remove the fire tube for inspection can pose its own safety concerns. In some cases, use of an alternative method for inspections would increase safety, since removing the fire tube may present a hazard if the fire tube is located in a place where it is not easy to remove.

The existing regulations require that an operator use a qualified third party to remove and inspect the fire tubes of tube-type heaters every five years. Although BSEE did not propose to change this requirement, based on comments BSEE received, BSEE revised the final rule to allow the use of “qualified third-party.”

Qualified Personnel Inspections

Comment: A commenter suggested that BSEE revise the phrase a “qualified third party” to “qualified personnel” because the term “qualified” is subject to interpretation and the requirement for a third party to perform the inspection is not consistent with existing regulation. The commenter also stated that BSEE’s requirement for the fire tube inspection to be done by a third party would not be consistent with § 250.851(a)(1)(ii). The commenter stated that revising the term “a qualified third party” to “qualified personnel” should satisfy BSEE’s desire for an inspection to be performed by someone with appropriate knowledge, experience, and training. The commenter asserted that its suggested change would be consistent with § 250.851(a)(1)(ii) by not requiring the inspector to be a third party and that its suggested change would take advantage of a standard already incorporated by reference without conflicting with it.

Response: BSEE believes that the commenter’s recommendation has merit; however, because the recommendation is substantive and BSEE did not include it in the proposed rule, we are not implementing it in this final rule. We will take it under advisement for potential future rulemaking.

Production Safety System Testing (Section 250.880)

Section summary: This section establishes requirements for testing of the various components of the production safety system. In addition, this section requires notifications to BSEE at various stages before and during production.

As proposed, BSEE is clarifying language in paragraph (a)(1) of the final rule to state that the operator must notify BSEE at least 72 hours before commencing “initial” production on a facility. The existing language states that the operator must notify BSEE “at least 72 hours before commencing production.” It did not specify that this notification was for initial production, leading to possible confusion as to whether the operator must notify BSEE anytime production on a facility has been shut in and the operator is ready to resume production. This was not BSEE’s intent. BSEE is also rewording the paragraph and adding a cross-reference to § 250.800(a)(2) for clarity.

As proposed, BSEE is also revising paragraphs (c)(2)(iv) and (c)(4)(iii) of the final rule to replace the incorporation by reference of API RP 14H, which was withdrawn by API, with API STD 6AV2.

Similarly, BSEE is revising § 250.880(c) of the final rule to replace the incorporation by reference of API RP 14B with ANSI/API RP 14B.

Commencement of Production

Comment: Industry commenters recommended inserting “initial” into § 250.880(a)(2) to be consistent with the proposed language in § 250.880(a)(1), so that the paragraph reads “Notify the District Manager upon commencement of initial production so that BSEE may conduct a complete inspection.”

Response: BSEE disagrees. The intent of § 250.880(a)(2) is that it applies any time an operator shuts down and restarts a facility, so that the operator notifies BSEE when a facility is on production. This is different from the intent of the notification required in § 250.880(a)(1), which is to notify BSEE in advance of initial production, so that BSEE may conduct a preproduction inspection.

Updating API RP 14C

Comment: Industry commenters stated that, if the Eighth Edition of API RP 14C is incorporated by reference as proposed in § 250.198, then BSEE should update § 250.880(b)(2) by deleting “D” in the sentence “Perform testing and inspection in accordance with API RP 14C, Appendix D I (incorporated by reference as specified in § 250.198), and the additional requirements found in the tables of this section or as approved in the DWOP for your subsea system.”

Response: As discussed elsewhere in the preamble, BSEE has decided not to incorporate by reference the Eighth Edition of API RP 14C in the final rule. Accordingly, the proposed revision would be inconsistent with that decision.

Alternative Method Verifying the Functionality of PSVs

Comment: Industry commenters recommended that alternatives for compliance, such as the use of API RP 510, should be incorporated into this section. Specifically, commenters recommended that the final rule explicitly include an alternative method of verifying the functionality of PSVs in § 250.880(c)(1)(i) that allows for an inspection program based on API RP 510 and API RP 576 as an alternative to lifting the main valve piston during the PSV test. Commenters also recommended the inclusion of weighted disc vent valves on atmospheric tanks in an inspection program based on API RP 510 and API RP 576 in lieu of annual disassembly and inspection.

Response: BSEE disagrees with the recommendation to include the additional method to verify functionality in the regulations. Testing of the piston movement is a critical test to verify functionality of the PSV.

Recommendation To Extend Inspection Intervals for Flame, Spark, and Detonation Arrestors

Comment: Industry commenters recommended that § 250.880(c)(3)(viii) should be changed to extend visual inspection intervals from annually, not to exceed 12 calendar months between tests, to not to exceed 3 years, with an exception for stack/spark arrestors on forced draft and natural draft fired components of not to exceed every 5 years. Commenters also recommended further extending inspection intervals where a risk assessment indicates that longer intervals are appropriate, noting that the arrestor performance can be monitored, and issues can be detected by observing the operating conditions of the component on which it is installed.

Response: BSEE disagrees. There is insufficient evidence to support extending the current inspection intervals beyond 1 year. Further, API RP 14C, Seventh Edition, section D.2.2., states that all safety devices should be inspected at least once per year.

Technology Advances for Fire—(Flame, Heat, or Smoke) and Gas Detection Systems

Comment: Commenter suggested that BSEE update § 250.880(c)(3)(ii) to acknowledge technology advances in flame and gas detection devices, noting as an example that infrared gas detectors do not require the same frequency of calibration as electrochemical based detectors to function reliably. The commenter further suggested that the frequency requirement should be as recommended by the manufacturer, but not more than 12 months.

Response: BSEE disagrees. The referenced technology is still relatively new. BSEE may consider revising timeframes once industry has proven the efficacy of the technology.

PSV Maintenance Programs

Comment: An industry commenter stated that its experience with a PSV maintenance program indicated that a risk based overhaul program aligned with API Standard 510 resulted in safe and reliable PSV and vent performance. The commenter recommended adding an alternative option to the testing requirements in § 250.880(c)(2)(i) under which annual testing would not be required if an operator has a risk-based overhaul program in place. Further, if

that alternative is not accepted, the commenter recommended that the regulation should allow additional time to perform the first test on those PSVs (and weighted disc vent valves used as PSVs) where it currently is not feasible to lift the piston during the test. The commenter also supported an additional 6 years beyond the effective date of the final rule to complete the first test. The commenter expressed concern that the proposed revision might result in industry and BSEE spending a significant amount of time on filing and responding to departure requests, and that such time could be better spent preparing to implement the rule.

Response: BSEE disagrees. The need to verify the piston movement is a safety-critical issue. Allowing an additional 6 years for this requirement to take effect would result in an unreasonable timeframe to come into compliance with a requirement that has been in place since November, 2016. BSEE's position remains that in order to validate the proper functioning of the PSV, the test must involve the movement of the piston.

Inspections Frequency for Flame, Spark, and Detonation Arrestors (Flame Arrestors)

Comment: An industry commenter recommended that BSEE add a compliance option to § 250.880(c)(2)(viii) to allow annual visual inspections of flame, spark, and detonation arrestors (flame arrestors). Commenter suggested an alternate approach that would allow setting an alternate inspection frequency of up to 6 years based on failure modes and consequence analysis, or replacement of flame arrestors every 6 years, with a 3 to 6 year interval. The commenter also suggested that undertaking inspections too frequently may expose technicians to unnecessary personal safety risk from working at height over water.

Response: BSEE disagrees. There is insufficient evidence to support extending the current inspection intervals beyond 1 year. Moreover, BSEE believes that this change would require an additional proposed rule since it is a substantive change to existing requirements that was not in the 2017 proposed rule.

What industry standards must your platform meet? (Section 250.901)

Section summary: This section addresses structural requirements for production facilities. BSEE proposed revising paragraph (a) of § 250.901 and the table in paragraph (d) to update the incorporation by reference of API STD 2RD. However, BSEE is not updating the

incorporated edition of API STD 2RD at this time, so no change to this section is included in the final rule.

Title of API STD 2RD

Comment: One commenter noted that the existing regulations did not cite the correct title for API STD 2RD.

Response: BSEE is not incorporating by reference the latest the edition of this document, which is API STD 2RD. The existing regulations refer accurately to API RP 2RD, which is currently incorporated by reference, so there is no need to revise this paragraph.

Design Requirements for DOI Pipelines (Section 250.1002)

Section summary: This section addresses design requirements for pipelines. The final rule revises paragraph (b) of § 250.1002 to update the references to ANSI/API Spec. 6A and to change the reference from "API Spec. 17J" to "ANSI/API Spec. 17J," which is the proper title of the standard as incorporated in the existing regulation.

Title of API STD 2RD

Comment: One commenter noted that the existing regulations did not cite the correct title for API STD 2RD.

Response: BSEE is not incorporating by reference the latest the edition of this document, which is API STD 2RD. The existing regulations refer accurately to API RP 2RD, which is currently incorporated by reference, so there is no need to revise this paragraph.

What To Include in Applications (Section 250.1007)

Section summary: This section specifies what operators must include in their pipeline applications. As proposed, BSEE is revising paragraph (a) of § 250.1007 to change the reference from "API Spec. 17J" to "ANSI/API Spec. 17J," which is the proper title of the standard as incorporated in the existing regulation. BSEE did not receive any comments on this section of the proposed rule.

H. Additional Comments Solicited

In the proposed rule, BSEE solicited comments on a number of issues related to 30 CFR part 250 for which BSEE did not propose any specific revisions to the existing regulations but which BSEE might have addressed in this final rule or might address in possible future rulemakings. See 82 FR 61714–61715. Those issues included: Whether the definition of Best Available and Safest Technology (BAST) in § 250.107(c) properly reflects the statutory intent; how to best organize § 250.198

("Documents incorporated by reference"), to make it clearer and even more consistent with OFR's recommendations for incorporations by reference; whether to modify conditions for SPPE failure analysis under § 250.803; and whether to extend the timeframe for initial pressure testing of PSVs under § 250.880. BSEE also solicited comments on whether BSEE should revise part 250 to address recommendations (such as requiring a safety device to de-energize electrostatic heater treaters) resulting from BSEE's investigation of the November 2014 explosion and fatality on West Delta Block 105 Platform E (see <https://www.bsee.gov/wd-105-e-panel-report>). Finally, BSEE solicited comments on potential obstacles for implementing the proposed requirements in the proposed rule, including comments on the feasibility of implementation and any hardships operators could encounter during implementation of a final rule.

With respect to whether the definition of BAST in § 250.107(c), as revised in the 2016 PSSR, properly reflects BSEE's statutory mandate concerning the use of BAST, BSEE received one comment from industry that suggested language for revising § 250.107(c) in a way that would prevent the Director from making a new BAST determination without going through a prior notice and comment rulemaking process. That same concept was addressed and rejected by BSEE in the 2016 final PSS rulemaking, and BSEE does not believe that the current industry comment on that issue provides any basis for revising § 250.107(c) at this time. Another commenter suggested that BSEE should consider modifying the language of § 250.107(c)(2) to encourage the submission of applications to BSEE to make BAST determinations. BSEE will take that suggestion under advisement.

With respect to comments submitted regarding potential problems with implementation of the specific proposed requirements, BSEE has either addressed those concerns in response to the comments on those specific requirements elsewhere in this final rule or has otherwise considered those comments in developing its plans for implementing the final rule.

With respect to potential non-substantive changes to § 250.198, for the purposes of reorganizing and revising that section, one commenter stated that meaningful comments on possible non-substantive changes would not be practical until after BSEE proposes

specific revisions to that section.¹⁸ BSEE will continue to consult with the OFR regarding its suggestions for specific, non-substantive organizational and language changes to § 250.198 and expects to address such revisions in a separate rulemaking.

With respect to the other issues on which BSEE solicited comments (failure analysis conditions under § 250.802; timeframe for initial PSV testing under § 250.880; and recommendations from the 2014 West Delta Block investigation), BSEE received a number of specific comments and is not implementing any changes based on those comments in this final rule. However, BSEE will consider those comments and decide at a later date whether to propose any additional revisions to the regulations.

Procedural Matters

Regulatory Planning and Review (E.O. 12866, E.O. 13563, E.O. 13771)

E.O. 12866 provides that the Office of Information and Regulatory Affairs (OIRA) within the Office of Management and Budget (OMB) will review all significant rules. OIRA has reviewed this final rule and determined that it is significant because it raises novel legal or policy issues. After reviewing the requirements of this rule, BSEE has determined that it will not have an annual effect on the economy of \$100 million or more nor adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, public health or safety, the environment, or state, local, or tribal governments or communities.

E.O. 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 E.O. 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.

E.O. 13771 requires Federal agencies to take proactive measures to reduce the costs associated with complying with Federal regulations. BSEE has evaluated this rulemaking based on the requirements of E.O. 13771. Details on the estimated cost savings of this proposed rule are found in the final rule's economic analyses, available in the public docket for this rulemaking. Important aspects of this rule (e.g., regulatory clarifications, reduction in paperwork burdens, adoption of industry standards, and migration to performance-based standards for select provisions) make it an E.O. 13771 deregulatory action. While this final rule reduces regulated entity compliance burdens, the rule continues to ensure safety and environmental protection for offshore production operations.

This rule primarily revises sections of 30 CFR part 250, subpart H, and updates standards referenced therein. BSEE has reassessed a number of the provisions in the existing regulations and determined that some provisions should be written as performance-based standards rather than prescriptive requirements. Other proposed revisions reduce or eliminate parts of the paperwork burden of the existing regulations, while ensuring continued safety and environmental protection. BSEE has reexamined the economic analysis for the 2016 PSSR and now believes that it may have underestimated some compliance costs. BSEE is therefore revising some of the compliance cost assumptions in the economic analysis for this rulemaking. The underestimation of compliance costs in the 2016 analysis was primarily related to (1) the burden for obtaining PE review and stamping of all drawings on a facility if any production equipment modifications are proposed and (2) duplicative independent third

party equipment certifications that will no longer be required under this rule (but are incorporated in the baseline). BSEE underestimated both the cost and number of PE reviews required under proposed § 250.842. The cost of independent third party testing and certifications required under proposed § 250.802(c)(1) was also underestimated by BSEE in 2016.

BSEE expects this final rule to reduce the regulatory burden on industry. Regulatory compliance cost savings are a result of changes in the rule that will reduce burden hours, PE stamping for production safety system components, and independent third party equipment certifications. BSEE estimates this final rule will reduce industry compliance burdens by \$13 million annually. Over 10 years, BSEE estimates the reduced compliance burdens and cost savings will be \$112 million discounted at 3 percent or \$92 million discounted at 7 percent.

The cost savings for revised provisions on PE stamping of production safety system modification documents (§ 250.842) are the single largest cost savings resulting from this rule. The additional PE certifications and stamping will no longer be required for all production safety system documents in an application, but will be required only for the documents for those components being modified. BSEE estimates the net regulatory cost savings for the § 250.842 changes will be \$5.7 million in the first year and \$40 million over 10 years discounted at 7 percent. The other provision providing substantial regulatory relief is the elimination of the third party reviews and certifications for select SPPE. Compliance with the various required standards (including ANSI/API Spec. Q1, ANSI/API Spec. 14A, ANSI/API RP 14B, ANSI/API Spec. 6A, and API Spec. 6AV1) ensures that each device will function in the conditions for which it was designed. The table below summarizes BSEE's estimate of the 10-year final rule compliance cost savings. Additional information on the compliance costs, savings, and benefits can be found in the final Regulatory Impact Analysis (RIA) posted in the public docket for this final rule.

¹⁸ Some commenters made comments that addressed the proposed substantive changes to the specific documents referenced in § 250.198 or raised more general concerns with the merits of, and processes for, incorporation by reference generally. BSEE has responded to those comments elsewhere in this final rule.

Total Estimated Cost Savings Associated with Amendments to Subpart H (2016\$)

10-Year	Undiscounted	Discounted at 3%	Discounted at 7%
Total	\$131,132,822	\$111,858,957	\$92,102,206
Annualized	\$13,113,282	\$13,113,282	\$13,113,282

BSEE has developed this final rule consistently with the requirements of E.O. 12866, E.O. 13563, and E.O. 13771. This rule revises various provisions in the current regulations with performance-based requirements based upon the best reasonably obtainable safety, technical, economic, and other information. BSEE has provided industry with more flexibility to meet the safety or equipment standards rather than specifying the compliance method when practical. Based on a consideration of the qualitative and quantitative safety and environmental factors related to the rule, BSEE's assessment is that its promulgation is consistent with the requirements of the applicable E.O.s and of OCSLA and that this rulemaking will reduce unnecessary burdens on stakeholders while ensuring safety and environmental protection for OCS production operations.

Small Business Regulatory Enforcement Fairness Act and Regulatory Flexibility Act

This final rule is not a major rule under the Small Business Regulatory Enforcement Fairness Act (5 U.S.C. 801 *et seq.*). This rule:

- Will not have an annual effect on the economy of \$100 million or more. This rule will revise the requirements for oil and gas production safety systems. The changes will not have any negative impact on the economy or any economic sector, productivity, jobs, the environment, or other units of government. The requirements primarily relate to the incorporated industry standards, to SPPE certification, and to PE stamping and will not add time to development and production processes.
- Will not cause a major increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions.
- Will 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.

The requirements will apply to all entities operating on the OCS.

Regulatory Flexibility Act

The Regulatory Flexibility Act, 5 U.S.C. 601–612, requires agencies to analyze the economic impact of regulations when a significant economic impact on a substantial number of small entities is likely and to consider regulatory alternatives that will achieve the agency's goals while minimizing the burden on small entities. The Regulatory Flexibility Analysis (RFA), which assesses the impact of this rule on small entities, is found in the RIA within the public docket for this rule.

As defined by the Small Business Administration (SBA), a small entity is one that is “independently owned and operated and which is not dominant in its field of operation.” What characterizes a small business varies from industry to industry in order to properly reflect industry size differences. This rule would affect lease operators that are conducting OCS production operations. BSEE's analysis shows this will include about 69 companies with active operations. Of the 69 companies, 21 (30 percent) are large and 48 (70 percent) are small. Entities that will operate under this rule primarily fall under the SBA's North American Industry Classification System (NAICS) codes 211120 (Crude Petroleum Extraction) and 211130 (Natural Gas Extraction). For NAICS classifications 211120 and 211130, SBA defines a small business as one with fewer than 1,251 employees.

BSEE considers that a rule will have an impact on a “substantial number of small entities” when the total number of small entities impacted by the rule is equal to or exceeds 10 percent of the relevant universe of small entities in a given industry. BSEE's analysis shows that there are 48 small companies with active operations on the OCS. All of the operating businesses meeting the SBA classification are potentially impacted; therefore, BSEE expects that the final rule will affect a substantial number of small entities.

This rule is a deregulatory action, and BSEE has estimated the overall associated cost savings. BSEE has estimated the annualized cost savings and allocated those savings to small or large entities based on the number of active or idle OCS production facilities. Using the share of small and large companies' production facilities, we estimate that small companies will realize 87 percent (~\$11.4 million) of the annualized cost savings from this rule and large companies 13 percent (~\$1.7 million). Additional information can be found in the RFA in the docket for this final rule.

Unfunded Mandates Reform Act of 1995

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

Takings (E.O. 12630)

This final rule does not effect a taking of private property or otherwise have taking implications under E.O. 12630. A Takings Implications Assessment is not required.

Federalism (E.O. 13132)

Under the criteria in section 1 of E.O. 13132, this final rule does not have sufficient federalism implications to warrant the preparation of a federalism summary impact statement. This rule will not substantially and directly affect the relationship between the Federal and State governments. To the extent that State and local governments have a role in OCS activities, this rule will not affect that role. A federalism summary impact statement is not required.

The BSEE has the authority to regulate offshore oil and gas production. State governments do not have authority over offshore production on the OCS. None of the changes in this rule will affect areas that are under the

jurisdiction of the States. It will not change the way that the States and the Federal government interact, or the way that States interact with private companies.

Civil Justice Reform (E.O. 12988)

This rule complies with the requirements of E.O. 12988. Specifically, this rule:

(a) Meets the criteria of section 3(a) requiring that all regulations be reviewed to eliminate errors, 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.

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 E.O. 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.

Paperwork Reduction Act (PRA) of 1995

This final rule contains a collection of information that has been submitted to OMB for review and approval under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*) The title of the collection of information for this rule is 30 CFR part 250, subpart H, Oil and Gas Production Safety Systems—Revisions. The OMB approved the collection under Control Number 1014–0003, expiration August 31, 2019, containing 95,997 hours and \$5,582,481 non-hour cost burdens. Due to this rulemaking, the revisions to the collection will result in a total of 93,385 hours and \$10,912,696 non-hour cost burdens. Potential respondents comprise Federal OCS oil, gas, and sulfur operators and lessees. Responses to this collection of information are mandatory or are required to obtain or retain a benefit. The frequency of responses submitted varies depending upon the requirement; but are usually on occasion, annually, and as a result of situations encountered. The ICR does not include questions of a sensitive nature. BSEE will protect proprietary information according to the Freedom of Information

Act (5 U.S.C. 552) and DOI's implementing regulations (43 CFR part 2), 30 CFR 250.197, *Data and information to be made available to the public or for limited inspection*, and 30 CFR part 252, *OCS Oil and Gas Information Program*.

Changes to the information collection due to this rulemaking are as follows:

BSEE proposed removing the independent third party certification requirements in § 250.802(c)(1) altogether, however a number commenters were concerned that there would be no way to ensure that operators are using SPPE that is designed for the conditions in which it will operate. To address these concerns, BSEE preserved certain independent third party certifications, and otherwise created a requirement to maintain documentation of how operators ensured the device being used is designed to function in the environment to which it will be exposed.

- Section 250.802(c)(1) is being rewritten and will add 250 burden hours for developing and maintaining the description of process; as well as make available to BSEE upon request. The revisions to this section will also cause a reduction in third party certification non-hour costs burdens by -\$460,000.

- § 250.842(c) is being eliminated, which will cause a reduction in hour burden by – 192 hours.

Between the proposed rule and this final rule, BSEE ran a query to get a more accurate number of modifications submitted under § 250.842 due to decommissioning activities and found we have been receiving fewer modifications than currently approved.

- Section 250.842 will reduce the hour burden by – 2,670.
- During the 2016 rulemaking (the 2016 PSSR), BSEE inadvertently omitted costs for Professional Engineers required to stamp documents in § 250.842. This revision to the collection requests approval of an additional \$5,790,215 non-hour costs (PE Costs). We are adding this category of costs in this rulemaking but note that this rulemaking reduces the amount of information a PE must stamp from the 2016 rule.

An agency 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. The public may comment, at any time, on the accuracy of the IC burden in this rule and may submit any comments to DOI/BSEE; ATTN: Regulations and Standards Branch; VAE–ORP; 45600 Woodland Road, Sterling, VA 20166; email

kyle.mason@bsee.gov, or fax (703) 787–1093.

National Environmental Policy Act of 1969

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 is not required because we reached a Finding of No Significant Impact. This finding and the accompanying environmental assessment was placed in the file for BSEE's Administrative Record for the rule at the address specified in the **ADDRESSES** section. A copy may also be viewed at the Federal eRulemaking Portal: <https://www.regulations.gov> (use the keyword/ID "BSEE–2017–0008").

Data Quality Act

In developing this rule, we did not conduct or use a study, experiment, or survey requiring peer review under the Data Quality Act (Pub. L. 106–554, app. C sec. 515, 114 Stat. 2763, 2763A–153–154). BSEE received one comment on the Data Quality Act, also known as the Information Quality Act (IQA). The commenter asserted that the draft EA under NEPA seems to be subject to the IQA and, therefore, should have been made available to the public to aid comment. Contrary to the commenter's assertion, however, BSEE did make the draft EA publicly available for review and public input during the proposed rulemaking by placing that document in the public docket along with the proposed rule.

Effects on the Nation's Energy Supply (E.O. 13211)

This final rule is not a significant energy action under the definition in E.O. 13211. A Statement of Energy Effects is not required. The final rule is an E.O. 13771 deregulatory action and does not add any new regulatory compliance requirements that would lead to adverse effects on the nation's energy supply, distribution, or use. Rather, the regulatory changes will help to reduce compliance burdens on the oil and gas industry that may hinder the development or use of domestically produced energy resources, while still ensuring safety and environmental protection.

Severability

If a court holds any provisions of this rule or their applicability to any person or circumstances invalid, the remainder of the provisions and their applicability to other people or circumstances will not be affected.

List of Subjects in 30 CFR Part 250

Administrative practice and procedure, Continental shelf, Continental Shelf—mineral resources, Continental Shelf—rights-of-way, Environmental impact statements, Environmental protection, Government contracts, Incorporation by reference, Investigations, Oil and gas exploration, Penalties, Pipelines, Reporting and recordkeeping requirements, Sulfur.

Joseph R. Balash,

Assistant Secretary—Land and Minerals Management.

For the reasons stated in the preamble, the Bureau of Safety and Environmental Enforcement (BSEE) amends 30 CFR part 250 as follows:

PART 250—OIL AND GAS AND SULFUR OPERATIONS IN THE OUTER CONTINENTAL SHELF

■ 1. The authority citation for part 250 continues to read as follows:

Authority: 30 U.S.C. 1751, 31 U.S.C. 9701, 33 U.S.C. 1321(j)(1)(C), 43 U.S.C. 1334.

Subpart A—General

■ 2. Amend § 250.198 by:

- a. Revising paragraphs (g) introductory text and (g)(1) through (3);
- b. Removing paragraph (g)(6) and redesignating paragraphs (g)(4) and (5) as (g)(6) and (7);
- c. In newly redesignated paragraphs (g)(6) and (7), removing the semicolon and adding a period in its place;
- d. Adding new paragraphs (g)(4) and (5);
- e. Revising paragraphs (h)(1), (52), (55);
- f. In paragraphs (h)(58) and (62), removing “250.842(b)” and adding in its place “250.842(c)”;
- g. Revising paragraphs (h)(59) through (61), (65), (68), (70), (71) and (96);
- h. In paragraph (h)(73), removing “250.802(b)” and adding in its place “250.802(c)”;
- i. Adding paragraph (o).

The revisions and additions read as follows:

§ 250.198 Documents incorporated by reference.

* * * * *

(g) American Society of Mechanical Engineers (ASME), 22 Law Drive, P.O. Box 2900, Fairfield, NJ 07007-2900; <http://www.asme.org>; phone: 1-800-843-2763;

(1) 2017 ASME Boiler and Pressure Vessel Code (BPVC), Section I, Rules for Construction of Power Boilers, 2017 Edition, July 1, 2017 incorporated by reference at §§ 250.851(a) and 250.1629(b).

(2) 2017 ASME Boiler and Pressure Vessel Code, Section IV, Rules for Construction of Heating Boilers, 2017 Edition, July 1, 2017 incorporated by reference at §§ 250.851(a) and 250.1629(b).

(3) 2017 ASME Boiler and Pressure Vessel Code, Section VIII, Rules for Construction of Pressure Vessels; Division 1, 2017 Edition; July 1, 2017 incorporated by reference at §§ 250.851(a) and 250.1629(b).

(4) 2017 ASME Boiler and Pressure Vessel Code, Section VIII, Rules for Construction of Pressure Vessels; Division 2: Alternative Rules, 2017 Edition, July 1, 2017 incorporated by reference at §§ 250.851(a) and 250.1629(b).

(5) 2017 ASME Boiler and Pressure Vessel Code, Section VIII, Rules for Construction Pressure Vessels; Division 3: Alternative Rules for Construction of High Pressure Vessels, 2017 Edition, July 1, 2017 incorporated by reference at §§ 250.851(a) and 250.1629(b).

* * * * *

(h) * * *

(1) API 510, Pressure Vessel Inspection Code: In-Service Inspection, Rating, Repair, and Alteration, Tenth Edition, May 2014; Addendum 1, May 2017; incorporated by reference at §§ 250.851(a) and 250.1629(b);

* * * * *

(2) API RP 2SK, Design and Analysis of Stationkeeping Systems for Floating Structures, Third Edition, October 2005, Addendum, May 2008, Reaffirmed June 2015; incorporated by reference at §§ 250.800(c) and 250.901(a) and (d);

* * * * *

(55) ANSI/API RP 14B, Design, Installation, Operation, Test, and Redress of Subsurface Safety Valve Systems, Sixth Edition, September 2015; incorporated by reference at §§ 250.802(b), 250.803(a), 250.814(d), 250.828(c), and 250.880(c);

* * * * *

(59) API RP 14FZ, Recommended Practice for Design, Installation, and Maintenance of Electrical Systems for Fixed and Floating Offshore Petroleum Facilities for Unclassified and Class I, Zone 0, Zone 1 and Zone 2 Locations, Second Edition, May 2013; incorporated by reference at §§ 250.114(c), 250.842(c), 250.862(e), and 250.1629(b);

(60) API RP 14G, Recommended Practice for Fire Prevention and Control on Fixed Open-type Offshore Production Platforms, Fourth Edition, April 2007; Reaffirmed, January 2013; incorporated by reference at §§ 250.859(a), 250.862(e), 250.880(c), and 250.1629(b);

(61) API STD 6AV2, Installation, Maintenance, and Repair of Surface Safety Valves and Underwater Safety Valves Offshore; First Edition, March 2014; Errata 1, August 2014; incorporated by reference at §§ 250.820, 250.834, 250.836, and 250.880(c);

* * * * *

(65) API RP 500, Recommended Practice for Classification of Locations for Electrical Installations at Petroleum Facilities Classified as Class I, Division 1 and Division 2, Third Edition, December 2012; Errata January 2014; incorporated by reference at §§ 250.114(a), 250.459, 250.842(a), 250.862(a) and (e), 250.872(a), 250.1628(b) and (d), and 250.1629(b);

* * * * *

(68) ANSI/API Spec. Q1, Specification for Quality Management System Requirements for Manufacturing Organizations for the Petroleum and Natural Gas Industry, Ninth Edition, June 2013; Errata, February 2014; Errata 2, March 2014; Addendum 1, June 2016; incorporated by reference at §§ 250.730 and 250.801(b) and (c);

* * * * *

(70) ANSI/API Spec. 6A, Specification for Wellhead and Christmas Tree Equipment, Twentieth Edition, October 2010; Addendum 1, November 2011; Errata 2, November 2011; Addendum 2, November 2012; Addendum 3, March 2013; Errata 3, June 2013; Errata 4, August 2013; Errata 5, November 2013; Errata 6, March 2014; Errata 7, December 2014; Errata 8, February 2016; Addendum 4, June 2016; Errata 9, June 2016; Errata 10, August 2016; incorporated by reference at §§ 250.730, 250.802(a), 250.803(a), 250.833, 250.873(b), 250.874(g), and 250.1002(b);

(71) API Spec. 6AV1, Specification for Verification Test of Wellhead Surface Safety Valves and Underwater Safety Valves for Offshore Service, Second Edition, February 2013; incorporated by reference at §§ 250.802(a), 250.833, 250.873(b), and 250.874(g);

* * * * *

(96) API 570, Piping Inspection Code: In-service Inspection, Rating, Repair, and Alteration of Piping Systems, Fourth Edition, February 2016; Addendum, May 2017; incorporated by reference at § 250.841(b).

* * * * *

(o) American National Standards Institute (ANSI), <http://www.webstore.ansi.org>; phone: 212-642-4900.

(1) ANSI Z88.2-1992, American National Standard for Respiratory Protection, incorporated by reference at § 250.490.

(2) [Reserved]

Subpart H—Oil and Gas Production Safety Systems

■ 3. Amend § 250.800 by revising paragraph (a) to read as follows:

§ 250.800 General.

(a) You must design, install, use, maintain, and test production safety equipment in a manner to ensure the safety and protection of the human, marine, and coastal environments. For production safety systems operated in subfreezing climates, you must use equipment and procedures that account for floating ice, icing, and other extreme environmental conditions that may occur in the area. Before you commence production on a new production facility:

(1) BSEE must approve your production safety system application, as required in § 250.842.

(2) You must request a preproduction inspection by notifying the District Manager at least 72 hours before you plan to commence initial production, as required under § 250.880(a)(1).

* * * * *

■ 4. Amend § 250.801 by revising paragraph (a) to read as follows:

§ 250.801 Safety and pollution prevention equipment (SPPE) certification.

(a) *SPPE equipment.* You must install only safety and pollution prevention equipment (SPPE) considered certified under paragraph (b) of this section or accepted under paragraph (c) of this section. BSEE considers the following equipment to be types of SPPE:

(1) Surface safety valves (SSV) and actuators, including those installed on injection wells capable of natural flow;

(2) Boarding shutdown valves (BSDV) and their actuators. For subsea wells, the BSDV is the surface equivalent of an SSV on a surface well;

(3) Underwater safety valves (USV) and actuators;

(4) Subsurface safety valves (SSSV) and associated safety valve locks and landing nipples; and

(5) Gas lift shutdown valves (GLSDV) and their actuators associated with subsea systems.

* * * * *

■ 5. Amend § 250.802 by revising paragraphs (a), (c) and (d) to read as follows:

§ 250.802 Requirements for SPPE.

(a) All SSVs, BSDVs, USVs, and GLSDVs and their actuators must meet all of the specifications contained in ANSI/API Spec. 6A and API Spec. 6AV1 (both incorporated by reference in § 250.198).

* * * * *

(c) Requirements derived from the documents incorporated in this section for SSVs, BSDVs, SSSVs, USVs, GLSDVs, and their actuators, include, but are not limited to, the following:

(1) You must ensure that each device is designed to function in the conditions to which it may be exposed; including temperature, pressure, flow rates, and environmental conditions.

(i) The device design must be tested by an independent test agency according to the test requirements in the

appropriate standard for that device (API Spec. 6AV1 or ANSI/API Spec. 14A), as identified in paragraphs (a) and (b) of this section.

(ii) You must maintain a description of the process you used to ensure the device is designed to function as required in paragraphs (a) and (c)(1) of this section and provide that description to BSEE upon request.

(iii) If you remove any SPPE from service and install the device at a different location, you must have a qualified third party review and certify that each device will function as designed under the conditions to which it may be exposed.

(2) All materials and parts must meet the original equipment manufacturer specifications and acceptance criteria.

(3) The device must pass applicable validation tests and functional tests performed by an API-licensed test agency.

(4) You must have requalification testing performed following manufacture design changes.

(5) You must comply with and document all manufacturing, traceability, quality control, and inspection requirements.

(6) You must follow specified installation, testing, and repair protocols.

(7) You must use only qualified parts, procedures, and personnel to repair or redress equipment.

(d) You must install and use SPPE according to the following table.

If . . .	Then . . .
(1) You need to install any SPPE	You must install SPPE that conforms to § 250.801.
(2) A non-certified SPPE is already in service	It may remain in service.
(3) A non-certified SPPE requires offsite repair, re-manufacturing, or any hot work such as welding.	You must replace it with SPPE that conforms to § 250.801.

* * * * *

■ 6. Revise § 250.803 to read as follows:

§ 250.803 What SPPE failure reporting procedures must I follow?

(a) You must follow the failure reporting requirements contained in section 10.20.7.4 of ANSI/API Spec. 6A for SSVs, BSDVs, GLSDVs and USVs. You must follow the failure reporting requirements contained in section 7.10 of ANSI/API Spec. 14A and Annex F of ANSI/API RP 14B for SSSVs (all incorporated by reference in § 250.198). Within 30 days after the discovery and identification of the failure, you must provide a written notice of equipment failure to the manufacturer of such equipment and to BSEE through the

Chief, Office of Offshore Regulatory Programs, unless BSEE has designated a third party as provided in paragraph (d) of this section. A failure is any condition that prevents the equipment from meeting the functional specification or purpose.

(b) You must ensure that an investigation and a failure analysis are performed within 120 days of the failure to determine the cause of the failure. If the investigation and analyses are performed by an entity other than the manufacturer, you must ensure that the analysis report is submitted to the manufacturer and to BSEE through the Chief, Office of Offshore Regulatory Programs, unless BSEE has designated a third party as provided in paragraph (d)

of this section. You must also ensure that the results of the investigation and any corrective action are documented in the analysis report.

(c) If the equipment manufacturer notifies you that it has changed the design of the equipment that failed or if you have changed operating or repair procedures as a result of a failure, then you must, within 30 days of such changes, report the design change or modified procedures in writing to BSEE through the Chief, Office of Offshore Regulatory Programs, unless BSEE has designated a third party as provided in paragraph (d) of this section.

(d) BSEE may designate a third party to receive the data required by paragraphs (a) through (c) of this section

on behalf of BSEE. If BSEE designates a third party, you must submit the information required in this section to the designated third party, as directed by BSEE.

- 7. Amend § 250.814 by revising paragraph (d) to read as follows:

§ 250.814 Design, installation, and operation of SSSVs—dry trees.

* * * * *

(d) You must design, install, maintain, inspect, repair, and test all SSSVs in accordance with ANSI/API RP 14B (incorporated by reference in § 250.198). For additional SSSV testing requirements, refer to § 250.880.

- 8. Revise § 250.820 to read as follows:

§ 250.820 Use of SSVs.

You must install, maintain, inspect, repair, and test all SSVs in accordance with API STD 6AV2 (incorporated by reference in § 250.198). If any SSV does not operate properly, or if any gas and/or liquid fluid flow is observed during the leakage test as described in § 250.880, then you must shut-in all sources to the SSV and repair or replace the valve before resuming production.

- 9. Amend § 250.821 by revising paragraphs (a) introductory text and (a)(1) to read as follows:

§ 250.821 Emergency action and safety system shutdown—dry trees.

(a) If your facility is impacted or will potentially be impacted by an emergency situation (e.g., an impending National Weather Service-named tropical storm or hurricane, ice events, or post-earthquake), you must:

(1) Properly install a subsurface safety device on any well that is not yet equipped with a subsurface safety device and that is capable of natural flow, as soon as possible, with due consideration being given to personnel safety.

* * * * *

- 10. Amend § 250.828 by revising paragraph (c) to read as follows:

§ 250.828 Design, installation, and operation of SSSVs—subsea trees.

* * * * *

(c) You must design, install, maintain, inspect, repair, and test all SSSVs in accordance with your Deepwater Operations Plan (DWOP) and ANSI/API RP 14B (incorporated by reference in § 250.198). For additional SSSV testing requirements, refer to § 250.880.

- 11. Amend § 250.833 by revising the introductory text to read as follows:

§ 250.833 Specification for underwater safety valves (USVs).

All USVs, including those designated as primary or secondary, and any alternate isolation valve (AIV) that acts as a USV, if applicable, and their actuators, must conform to the requirements specified in §§ 250.801 through 250.803. A production master or wing valve may qualify as a USV under ANSI/API Spec. 6A and API Spec. 6AV1 (both incorporated by reference in § 250.198).

* * * * *

- 12. Revise § 250.834 to read as follows:

§ 250.834 Use of USVs.

You must install, maintain, inspect, repair, and test any valve designated as the primary USV in accordance with this subpart, your DWOP (as specified in §§ 250.286 through 250.295), and API STD 6AV2 (incorporated by reference in § 250.198). For additional USV testing requirements, refer to § 250.880.

- 13. Revise § 250.836 to read as follows:

§ 250.836 Use of BSDVs.

You must install, inspect, maintain, repair, and test all new BSDVs, as well as all BSDVs that you remove from service for remanufacturing or repair, in accordance with API STD 6AV2 (incorporated by reference in § 250.198) for SSVs. If any BSDV does not operate properly or if any gas fluid and/or liquid fluid flow is observed during the leakage test, as described in § 250.880, you must shut-in all sources to the BSDV and immediately repair or replace the valve.

- 14. Amend § 250.837 by revising paragraphs (a), (b), and (c)(5) to read as follows:

§ 250.837 Emergency action and safety system shutdown—subsea trees.

(a) If your facility is impacted or will potentially be impacted by an emergency situation (e.g., an impending National Weather Service-named tropical storm or hurricane, ice events, or post-earthquake), you must shut-in all subsea wells unless otherwise approved by the District Manager. A shut-in is defined as a closed BSDV, USV, GLSDV, and surface-controlled SSSV.

(b) When operating a mobile offshore drilling unit (MODU) or other type of workover or intervention vessel in an area with subsea infrastructure, you must:

(1) Suspend production from all wells that could be affected by a dropped object, including upstream wells that flow through the same pipeline; or

(2) Establish direct, real-time communications between the MODU or other type of workover or intervention vessel and the production facility control room and develop a dropped objects plan, as required in § 250.714. If an object is dropped, you must immediately secure the well directly under the MODU or other type of workover or intervention vessel while simultaneously communicating with the platform to shut-in all affected wells. You must also maintain without disruption, and continuously verify, communication between the production facility and the MODU or other type of workover or intervention vessel. If communication is lost between the MODU or other type of workover or intervention vessel and the platform for 20 or more minutes, you must shut-in all wells that could be affected by a dropped object.

(c) * * *

(5) *Subsea ESD (MODU)*. In the event of an ESD activation that is initiated by a dropped object from a MODU or other type of workover or intervention vessel, you must secure all wells in the proximity of the MODU or other type of workover or intervention vessel by closing the USVs and surface-controlled SSSVs in accordance with the applicable tables in §§ 250.838 and 250.839. You must notify the appropriate District Manager before resuming production.

* * * * *

- 15. Amend § 250.841 by adding a paragraph (c) to read as follows:

§ 250.841 Platforms.

* * * * *

(c) If you plan to make a modification to any production safety system that also involves a major modification to the platform structure, you must follow the requirements in § 250.900(b)(2). A major modification to a platform structure is defined in § 250.900(b)(2).

- 16. Revise § 250.842 to read as follows:

§ 250.842 Approval of safety systems design and installation features.

(a) Before you install or modify a production safety system, you must submit a production safety system application to the District Manager. The District Manager must approve your production safety system application before you commence production through or otherwise use the new or modified system. The application must include the design documentation prescribed as follows:

You must submit:	Details and/or additional requirements:
(1) Safety analysis flow diagram (API RP 14C, Annex B) and Safety Analysis Function Evaluation (SAFE) chart (API RP 14C, section 6.3.3) (incorporated by reference in § 250.198)	Your safety analysis flow diagram must show the following: (i) Well shut-in tubing pressure; (ii) Pressure relieving device set points; (iii) Size, capacity, and design working pressures of separators, flare scrubbers, heat exchangers, treaters, storage tanks, compressors, and metering devices; (iv) Size, capacity, design working pressures, and maximum discharge pressure of hydrocarbon-handling pumps; (v) Size, capacity, and design working pressures of hydrocarbon-handling vessels, and chemical injection systems handling a material having a flash point below 100 degrees Fahrenheit for a Class I flammable liquid as described in API RP 500 and API RP 505 (both incorporated by reference in § 250.198); and (vi) Piping sizes and maximum allowable working pressures as determined in accordance with API RP 14E (incorporated by reference in § 250.198), including the locations of piping specification breaks.
(2) Electrical one-line diagram;	Showing elements including generators, circuit breakers, transformers, bus bars, conductors, automatic transfer switches, uninterruptable power supply (UPS) and associated battery banks, dynamic (motor) loads, and static loads (<i>e.g.</i> , electrostatic treater grid, lighting panels). You must also include a functional legend.
(3) Area classification diagram;	A plan for each platform deck and outlining all classified areas. You must classify areas according to API RP 500 or API RP 505 (both incorporated by reference in § 250.198). The plan must contain: (i) All major production equipment, wells, and other significant hydrocarbon and class 1 flammable sources, and a description of the type of decking, ceiling, walls (<i>e.g.</i> , grating or solid), and firewalls; and (ii) The location of generators and any buildings (<i>e.g.</i> , control rooms and motor control center (MCC) buildings) or major structures on the platform.
(4) A piping and instrumentation diagram, for new facilities;	A detailed flow diagram which shows the piping and vessels in the process flow, together with the instrumentation and control devices.
(5) The service fee listed in § 250.125;	The fee you must pay will be determined by the number of components involved in the review and approval process.

(b) You must develop and maintain the following design documents and make them available to BSEE upon request:

Diagram:	Details and/or additional requirements:
(1) Additional electrical system information;	(i) Cable tray/conduit routing plan that identifies the primary wiring method (<i>e.g.</i> , type cable, cable schedule, conduit, wire); and (ii) Panel board/junction box location plan, if this information is not shown on the area classification diagram required in paragraph (a)(3) of this section.
(2) Schematics of the fire and gas-detection systems;	Showing a functional block diagram of the detection system, including the electrical power supply and also including the type, location, and number of detection sensors; the type and kind of alarms, including emergency equipment to be activated; and the method used for detection.
(3) Revised piping and instrumentation diagram for existing facilities;	A detailed flow diagram which shows the piping and vessels in the process flow, together with the instrumentation and control devices.

(c) In the production safety system application, you must also certify the following:

(1) That all electrical systems were designed according to API RP 14F or API RP 14FZ, as applicable (incorporated by reference in § 250.198);

(2) That the design documents for the mechanical and electrical systems that you are required to submit under paragraph (a) of this section are sealed by a licensed professional engineer. For modified systems, only the modifications are required to be sealed by a licensed professional engineer(s). The professional engineer must be licensed in a State or Territory of the United States and have sufficient expertise and experience to perform the duties; and

(3) That a hazards analysis was performed in accordance with § 250.1911 and API RP 14J (incorporated by reference in § 250.198), and that you have a hazards analysis program in place to assess potential hazards during the operation of the facility.

(d) Within 90 days after placing new or modified production safety systems in service, you must submit to the District Manager the as-built diagrams for the new or modified production safety systems outlined in paragraphs (a)(1), (2), and (3) of this section. You must certify in an accompanying letter that the as-built design documents have been reviewed for compliance with applicable regulations and accurately represent the new or modified system as

installed. The drawings must be clearly marked “as-built.”

(e) You must maintain approved and supporting design documents required under paragraphs (a) and (b) of this section at your offshore field office nearest the OCS facility or at other locations conveniently available to the District Manager. These documents must be made available to BSEE upon request and must be retained for the life of the facility. All approved designs are subject to field verifications.

■ 17. Amend § 250.851 by revising paragraph (a)(2) to read as follows:

§ 250.851 Pressure vessels (including heat exchangers) and fired vessels.

(a) * * *

Item name	Applicable codes and requirements
* * * * *	
(2) Existing uncoded pressure and fired vessels: (i) With an operating pressure greater than 15 psig; and (ii) That are not code stamped in accordance with the ASME Boiler and Pressure Vessel Code	Must be justified and approval obtained from the District Manager for their continued use.
* * * * *	

* * * * *

■ 18. Amend § 250.852 by revising paragraphs (e)(1) and (4) to read as follows:

§ 250.852 Flowlines/Headers.

* * * * *

(e) * * *

(1) Review the manufacturer’s Design Methodology Verification Report and the independent verification agent’s (IVA) certificate for the design methodology contained in that report to ensure that the manufacturer has complied with the requirements of ANSI/API Spec. 17J (incorporated by reference in § 250.198);

* * * * *

(4) Submit to the District Manager a statement certifying that the pipe is suitable for its intended use and that the manufacturer has complied with the IVA requirements of ANSI/API Spec. 17J (incorporated by reference in § 250.198).

* * * * *

■ 19. Amend § 250.853 by:
 ■ a. In paragraph (b), removing the word “and”;
 ■ b. In paragraph (c), removing the period and adding “; and” in its place; and
 ■ c. Adding a paragraph (d).
 The addition reads as follows:

§ 250.853 Safety sensors.

* * * * *

(d) All level sensors are equipped to permit testing through an external bridle on all new vessel installations where possible, depending on the type of vessel for which the level sensor is used.

■ 20. Amend § 250.867 by revising paragraph (a) and adding paragraph (d) to read as follows:

§ 250.867 Temporary quarters and temporary equipment.

(a) You must equip temporary quarters with all safety devices required by API RP 14C, Appendix C (incorporated by reference as specified in § 250.198). The District Manager must approve the safety system/safety devices associated with the temporary quarters prior to installation.

* * * * *

(d) The District Manager must approve temporary generators that would require a change to the electrical one-line diagram in § 250.842(a).

■ 21. Amend § 250.870 by revising paragraphs (a) introductory text and (a)(2) to read as follows:

§ 250.870 Time delays on pressure safety low (PSL) sensors.

(a) You may apply industry standard Class B, Class C, or Class B/C logic to applicable PSL sensors installed on process equipment. If the device may be bypassed for greater than 45 seconds, you must monitor the bypassed devices in accordance with § 250.869(a). You must document on your field test records any use of a PSL sensor with a time delay greater than 45 seconds. For purposes of this section, PSL sensors are categorized as follows:

* * * * *

(2) Class C safety devices have logic that allows for the PSL sensors to be bypassed until the component comes into full service (i.e., the time at which the startup pressure equals or exceeds the set pressure of the PSL sensor, the system reaches a stabilized pressure, and the PSL sensor clears). If a Class C safety device is bypassed, you must monitor the device until it is in full service.

* * * * *

■ 22. Revise § 250.872 to read as follows:

§ 250.872 Atmospheric vessels.

(a) You must equip atmospheric vessels used to process and/or store

liquid hydrocarbons or other Class I liquids as described in API RP 500 or 505 (both incorporated by reference in § 250.198) with protective equipment identified in API RP 14C, section A.5 (incorporated by reference in § 250.198). Transport tanks approved by the U.S. Department of Transportation, that are sealed and not connected via interconnected piping to the production process train and that are used only for storage of refined liquid hydrocarbons or Class I liquids, are not required to be

equipped with the protective equipment identified in API RP 14C, section A.5. The atmospheric vessels connected to the process system that contains a Class I liquid and the associated pumps must be reflected on the design documents listed in § 250.842(a)(1) through (4) and (b)(3).

(b) You must ensure that all atmospheric vessels are designed and maintained to ensure the proper working conditions for LSH sensors. The LSH sensor bridle must be designed

to prevent different density fluids from impacting sensor functionality.

(c) You must ensure that all atmospheric vessels are designed, installed, and maintained to prevent pollution, including the displacement of oil out of an overboard water outlet, as required by § 250.300(b)(3) and (4).

■ 23. Amend § 250.873 by revising paragraph (b)(3) to read as follows:

§ 250.873 Subsea gas lift requirements.

* * * * *

If your subsea gas lift system introduces the lift gas to the . . .	Then you must install a				In addition, you must
	ANSI/API Spec 6A and API Spec 6AV1 (both incorporated by reference as specified in § 250.198) gas-lift shutdown valve (GLSDV), and . . .	FSV on the gas-lift supply pipeline . . .	PSHL on the gas-lift supply . . .	ANSI/API Spec 6A and API Spec 6AV1 manual isolation valve . . .	
* * * * *					
(3) Pipeline risers via a gas-lift line contained within the pipeline riser	Meet all of the requirements for the GLSDV described in §§ 250.835(a), (b), and (d) and 250.836 on the gas-lift supply pipeline. Attach the GLSDV by flanged connection directly to the ANSI/API Spec. 6A component used to suspend and seal the gas-lift line contained within the production riser. To facilitate the repair or replacement of the GLSDV or production riser BSDV, you may install a manual isolation valve between the GLSDV and the ANSI/API Spec. 6A component used to suspend and seal the gas-lift line contained within the production riser, or outboard of the production riser BSDV and inboard of the ANSI/API Spec. 6A component used to suspend and seal the gas-lift line contained within the production riser	upstream (in-board) of the GLSDV	flowline upstream (in-board) of the FSV	downstream (out board) of the GLSDV	(i) Ensure that the gas-lift supply flowline from the gas-lift compressor to the GLSDV is pressure-rated for the MAOP of the pipeline riser. (ii) Ensure that any surface equipment associated with the gas-lift system is rated for the MAOP of the pipeline riser. (iii) Ensure that the gas-lift compressor discharge pressure never exceeds the MAOP of the pipeline riser. (iv) Suspend and seal the gas-lift flowline contained within the production riser in a flanged ANSI/API Spec. 6A component such as an ANSI/API Spec. 6A tubing head and tubing hanger or a component designed, constructed, tested, and installed to the requirements of ANSI/API Spec. 6A. (v) Ensure that all potential leak paths upstream or near the production riser BSDV

					on the platform provide the same level of safety and environmental protection as the production riser BSDV. (vi) Ensure that this complete assembly is fire-rated for 30 minutes.
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* * * * *

■ 24. Amend § 250.874 by revising paragraph (g)(2) to read as follows:

§ 250.874 Subsea water injection systems.

* * * * *

(g) * * *

(2) If a designated USV on a water injection well fails the applicable test under § 250.880(c)(4)(ii), you must notify the appropriate District Manager and request approval to designate another ANSI/API Spec 6A and API Spec. 6AV1 (both incorporated by reference in § 250.198) certified subsea valve as your USV.

* * * * *

■ 25. Revise § 250.876 to read as follows:

§ 250.876 Fired and exhaust heated components.

No later than September 7, 2018, and at least once every 5 years thereafter, you must have qualified third-party inspect, and then you must repair or replace, as needed, the fire tube for tube-type heaters that are equipped with either automatically controlled natural or forced draft burners installed in either atmospheric or pressure vessels that heat hydrocarbons and/or glycol. If inspection indicates tube-type heater deficiencies, you must complete and document repairs or replacements. You must document the inspection results, retain such documentation for at least 5 years, and make the documentation available to BSEE upon request.

■ 26. Amend § 250.880 by revising paragraphs (a) introductory text, (a)(1), (c)(1)(i), (c)(2)(iv), and (c)(4)(i) and (iii) to read as follows:

§ 250.880 Production safety system testing.

(a) *Notification.* You must:

(1) Notify the District Manager at least 72 hours before you commence initial production on a facility as required in § 250.800(a)(2), in order for BSEE to conduct the preproduction inspection of the integrated safety system.

* * * * *

(c) * * *

(1) * * *

Item name	Testing frequency, allowable leakage rates, and other requirements
(i) Surface-controlled SSSVs (including devices installed in shut-in and injection wells).	Semi-annually, not to exceed 6 calendar months between tests. Also test in place when first installed or reinstalled. If the device does not operate properly, or if a liquid leakage rate > 400 cubic centimeters per minute or a gas leakage rate > 15 standard cubic feet per minute is observed, the device must be removed, repaired, and reinstalled or replaced. Testing must be according to ANSI/API RP 14B (incorporated by reference in § 250.198) to ensure proper operation.
* * * * *	* * * * *

(2) * * *

Item name	Testing frequency and requirements
(iv) SSVs	Once each calendar month, not to exceed 6 weeks between tests. Valves must be tested for both operation and leakage. You must test according to API STD 6AV2 (incorporated by reference in § 250.198). If an SSV does not operate properly or if any gas and/or liquid fluid flow is observed during the leakage test, the valve must be immediately repaired or replaced.
* * * * *	* * * * *

(4) * * *

Item name	Testing frequency, allowable leakage rates, and other requirements
(i) Surface-controlled SSSVs (including devices installed in shut-in and injection wells).	Tested semiannually, not to exceed 6 months between tests. If the device does not operate properly, or if a liquid leakage rate > 400 cubic centimeters per minute or a gas leakage rate > 15 standard cubic feet per minute is observed, the device must be removed, repaired, and reinstalled or replaced. Testing must be according to ANSI/API RP 14B (incorporated by reference in § 250.198) to ensure proper operation, or as approved in your DWOP.

Item name	Testing frequency, allowable leakage rates, and other requirements
* * * * * (iii) BSDVs * * * * *	Tested at least once each calendar month, not to exceed 6 weeks between tests. Valves must be tested for both operation and leakage. You must test according to API STD 6AV2 for SSVs (incorporated by reference in §250.198). If a BSDV does not operate properly or if any fluid flow is observed during the leakage test, the valve must be immediately repaired or replaced. * * * * *

* * * * *
 ■ 27. Amend § 250.1002 by revising paragraphs (b)(1), (2), and (4) to read as follows:

§ 250.1002 Design requirements for DOI pipelines.

* * * * *
 (b)(1) Pipeline valves shall meet the minimum design requirements of ANSI/API Spec 6A (as incorporated by reference in § 250.198), ANSI/API Spec 6D (as incorporated by reference in § 250.198), or the equivalent. A valve may not be used under operating conditions that exceed the applicable pressure-temperature ratings contained in those standards.

(2) Pipeline flanges and flange accessories shall meet the minimum design requirements of ANSI/ASME B16.5, ANSI/API Spec 6A, or the equivalent (as incorporated by reference in § 250.198). Each flange assembly must be able to withstand the maximum pressure at which the pipeline is to be operated and to maintain its physical and chemical properties at any temperature to which it is anticipated that it might be subjected in service.

* * * * *
 (4) If you are installing pipelines constructed of unbonded flexible pipe, you must design them according to the standards and procedures of ANSI/API

Spec. 17J, as incorporated by reference in § 250.198.

* * * * *
 ■ 28. Amend § 250.1007 by revising paragraph (a)(4)(i)(D) to read as follows:

§ 250.1007 What to include in applications.

- (a) * * *
- (4) * * *
- (i) * * *
- (D) A review by a third-party independent verification agent (IVA) according to ANSI/API Spec. 17J (as incorporated by reference in § 250.198), if applicable.