ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63


RIN 2060–AV03

National Emission Standards for Hazardous Air Pollutants: Stationary Combustion Turbines; Amendments

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The U.S. Environmental Protection Agency (EPA) is finalizing amendments to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Combustion Turbines. This final action removes the stay of the effectiveness of the standards for new lean premix and diffusion flame gas-fired turbines that was promulgated in 2004.

DATES: The final rule is effective on March 9, 2022.

ADDRESSES: The EPA has established a docket for this rulemaking under Docket ID No. EPA–HQ–OAR–2017–0688. All documents in the docket are listed on in the https://www.regulations.gov/ website. Although listed, some information is not publicly available, e.g., Confidential Business Information or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the internet and will be publicly available only in hard copy form. Publicly available docket materials are available electronically at http://www.regulations.gov/. Out of an abundance of caution for members of the public and our staff, the EPA Docket Center and Reading Room are closed to the public, with limited exceptions, to reduce the risk of transmitting COVID–19. Our Docket Center staff will continue to provide remote customer service via email, phone, and webform. We encourage the public to submit comments via https:// www.regulations.gov/ or email, as there may be a delay in processing mail and faxes. Hand deliveries and couriers may be received by scheduled appointment only. For further information on EPA Docket Center services and the current status, please visit us online at https:// www.epa.gov/dockets.

FOR FURTHER INFORMATION CONTACT: For questions about this action, contact Melanie King, Sector Policies and Programs Division (ID243–01), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711; telephone number: (919) 541–2469; and email address: king.melanie@ epa.gov.

SUPPLEMENTARY INFORMATION:

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I. General Information

A. Does this action apply to me?

   Regulated entities. Categories and entities potentially regulated by this action include industries using stationary combustion turbines, such as: Electric power generation, transmission, or distribution; Pipeline transportation of natural gas; and Crude petroleum and natural gas extraction (North American Industry Classification System Codes 2211, 486210, 211120, 211130). This list is not intended to be exhaustive, but rather to provide a guide for readers regarding entities likely to be affected by the final action for the source category listed. To determine whether your facility is affected, you should examine the applicability criteria in the rule. If you have any questions regarding the applicability of any aspect of this action, please contact the person listed in the preceding FOR FURTHER INFORMATION CONTACT section of this preamble.

B. Where can I get a copy of this document and other related information?

In addition to being available in the docket, an electronic copy of this final action will also be available on the internet. Following signature by the EPA Administrator, the EPA will post a copy of this final action at: https:// www.epa.gov/stationary-sources-air-pollution/stationary-combustion-turbines-national-emission-standards. Following publication in the Federal Register, the EPA will post the Federal Register version and key technical documents at this same website.

C. Judicial Review and Administrative Reconsideration

Under Clean Air Act (CAA) section 307(b)(1), judicial review of this final action is available only by filing a petition for review in the United States Court of Appeals for the District of Columbia Circuit by May 9, 2022. Under CAA section 307(b)(2), the requirements established by this final rule may not be challenged separately in any civil or criminal proceeding brought by the EPA to enforce the requirements.

Section 307(d)(7)(B) of the CAA further provides that only an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment (including any public hearing) may be raised during judicial review. That section of the CAA also provides a mechanism for the EPA to reconsider the rule if the person raising an objection can demonstrate to the Administrator that it was impracticable to raise such objection within the period for public comment or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule. Any person seeking to make such a demonstration should submit a Petition for Reconsideration to the Office of the Administrator, U.S. EPA, Room 3000, WJC South Building, 1200 Pennsylvania Ave. NW, Washington, DC 20460, with a copy to both the person(s) listed in the preceding FOR FURTHER INFORMATION CONTACT section, and the Associate General Counsel for the Air and Radiation Law Office, Office of General Counsel (Mail Code 2344A), U.S. EPA, 1200 Pennsylvania Ave. NW, Washington, DC 20460.
II. Background and Final Amendments

The Stationary Combustion Turbine NESHAP, found at 40 CFR part 63, subpart YYYY, was originally promulgated in 2004 (69 FR 10512; March 5, 2004). The following eight subcategories of stationary combustion turbines were defined in the rulemaking: (1) Emergency stationary combustion turbines, (2) stationary combustion turbines which burn landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis or where gasified municipal solid waste is used to generate 10 percent or more of the gross heat input to the stationary combustion turbine on an annual basis, (3) stationary combustion turbines of less than 1 megawatt rated peak power output, (4) stationary lean premix combustion turbines when firing gas and when firing oil at sites where all turbines fire oil no more than an aggregate total of 1,000 hours annually (also referred to herein as “lean premix gas-fired turbines”), (5) stationary lean premix combustion turbines when firing oil at sites where all turbines fire oil more than an aggregate total of 1,000 hours annually (also referred to herein as “lean premix oil-fired turbines”), (6) stationary diffusion flame combustion turbines when firing gas and when firing oil at sites where all turbines fire oil no more than an aggregate total of 1,000 hours annually (also referred to herein as “diffusion flame gas-fired turbines”), (7) stationary diffusion flame combustion turbines when firing oil at sites where all turbines fire oil more than an aggregate total of 1,000 hours annually (also referred to herein as “diffusion flame oil-fired turbines”), and (8) stationary combustion turbines operated on the North Slope of Alaska (defined as the area north of the Arctic Circle (latitude 66.5° North)).

The NESHAP requires new or reconstructed stationary combustion turbines in the lean premix gas-fired, lean premix oil-fired, diffusion flame gas-fired, and diffusion flame oil-fired subcategories to meet a formaldehyde limit of 91 parts per billion by volume, dry basis (ppbv) at 15 percent oxygen (O₂). Compliance is demonstrated through initial and annual performance testing and continuous monitoring of operating parameters.

During the original Stationary Combustion Turbine NESHAP rulemaking, the EPA received a petition from the Gas Turbine Association in August 2002 to create and delist two subcategories of stationary combustion turbines under CAA section 112(c)(9). The subcategories that were called for in the petition were lean premix combustion turbines firing natural gas with limited oil backup and a low-risk combustion turbine subcategory where facilities would make site-specific demonstrations regarding risk levels. Additional information supporting the petition was provided in February 2003. On April 7, 2004, the EPA proposed to delist lean premix gas-fired turbines as well as three additional subcategories of turbines that were determined to meet the criteria for delisting in CAA section 112(c)(9)(B): Diffusion flame gas-fired, emergency, and turbines located on the North Slope of Alaska (69 FR 18327; April 7, 2004). At the same time, the EPA proposed to stay the effectiveness of the NESHAP for new lean premix gas-fired and diffusion flame gas-fired turbines to “avoid wasteful and unwarranted expenditures on installation of emission controls which will not be required if the subcategories are delimited.” (69 FR 18338; April 7, 2004) The standards for new oil-fired turbines were not stayed and have been in effect. On August 18, 2004, the EPA finalized the stay of the effectiveness of the NESHAP for new lean premix gas-fired and diffusion flame gas-fired turbines, pending the outcome of the proposed delisting (69 FR 51184; August 18, 2004). The EPA stated that it would lift the stay if the subcategories were not ultimately delisted, and that turbines constructed or reconstructed after January 14, 2003, would then be subject to the final standards. The EPA also explained that those turbines would be given the same time to demonstrate that they would have if there had been no stay.

The proposal to delist the four subcategories was never finalized in light of the 2007 decision in NRDC v. EPA, 489 F.3d 1364 (D.C. Cir. 2007), which addressed limits on the EPA’s ability to delist subcategories. In the 2019 proposed residual risk and technology review (RTR) for the Stationary Combustion Turbine NESHAP, the residual risk analysis did not support a conclusion that the entire Stationary Combustion Turbines source category met the criteria for delisting in CAA section 112(c)(9)(B). The results of the inhalation risk assessment for the proposed RTR suggested that the maximum individual cancer risk for the source category was above 1-in-1 million. Consequently, the EPA proposed to remove the stay of the standards for new lean premix and diffusion flame gas-fired turbines (84 FR 15046; April 12, 2019).

When the RTR was finalized on March 9, 2020, (85 FR 13525), the EPA did not finalize the removal of the stay to allow for additional time to review the public comments on the proposed removal of the stay, as well as to provide time to review information in a new petition that was submitted in August 2019 to delist the entire Stationary Combustion Turbines source category. In 2004, the EPA had determined that a stay was appropriate while the Agency solicited comment on a proposed subcategory delisting to avoid unwarranted expenditures on installation of emission controls which would not have been required if the subcategories were delisted. In the 2020 final RTR, the Agency determined that it would be reasonable to delay taking final action on the proposal to lift the stay for the same reasons in light of the new petition. However, the EPA has concluded that the new petition to delist the source category does not warrant any further delay in lifting the stay in light of the current status of the EPA’s evaluation of the delisting petition. The EPA has not yet completed its evaluation of the petition or determined whether the petition is complete. If the EPA determines that the petition is complete, the Agency will then, on the basis of the Agency’s analysis and the Administrator’s discretion, either propose to grant the petition and request further public input or take final action to deny the petition. If a proposal to grant the petition is issued, a subsequent rulemaking would be required to finalize the delisting. Consequently, final action on the source category delisting is not likely to be made in the near term. Therefore, the EPA does not believe it is appropriate to continue to retain the stay. In addition, the Agency has evaluated its authority for the stay in light of recent caselaw concerning stays issued under the authority of the CAA and the Administrative Procedure Act (APA), and has been unable to identify any authority for the stay in either statute.

In light of the issues concerning the feasibility of the 2020 RTR, the uncertainty concerning the timing and outcome of the EPA’s final decision on...
the delisting petition, the EPA is taking final action now to remove the stay of the standards for new lean premix and diffusion flame gas-fired turbines.

III. Public Comments and Responses

This section presents a summary of the public comments received on the proposal to lift the stay of the standards for new lean premix and diffusion flame gas-fired turbines. The EPA received 21 public comments on the proposal to lift the stay. All comments are contained in the docket for this action. The summary of comments on other elements of the 2019 proposal and the EPA’s responses can be found in the docket at Document ID No. EPA–HQ–OAR–2017–0688–0139.

Comment: Some commenters supported the EPA’s proposed revision to lift the stay of the standards for new lean premix and diffusion flame gas-fired turbines, agreeing with the EPA’s rationale for proposing to lift the stay and questioning the EPA’s authority to continue the stay.

Response: The EPA acknowledges the comments supporting the removal of the stay. The EPA is removing the stay in this final action and thus no response is required for these comments.

Comment: Several commenters stated that the EPA is under no obligation to lift the stay as part of the RTR rulemaking. One commenter stated that, based on the EPA’s original rationale for the stay as well as practical and technological considerations, the EPA should not take any action that would make emission limitations effective upon the date of a final rule addressing other affected units and the RTR provisions of the proposal. Commenters further cited the findings of the EPA’s and the delisting petitioners’ risk analyses to support addressing the stay in a separate rulemaking. Commenters noted that there is no court-ordered deadline to lift the stay, and they further noted that there is no statutory provision regarding the status of the stay when a health risk is undercut this health-risk assessment.

Response: The preamble to the proposed rule clearly indicated that the EPA was proposing to remove the stay. The proposed amendments to the regulatory text also clearly removed the stay provision from the rule. The proposed amendments to 40 CFR 60.4110 were written in the manner noted by commenter in the event that the removal of the stay was finalized on a different timeline than the other proposed amendments. The supporting statement for the original 2004 rule accounted for the notification, testing, monitoring, recordkeeping, and reporting costs and thus such costs were not counted again in the 2019 proposed rule.

Comment: Other commenters raised cost and risk issues in arguing that the EPA should not finalize the proposal to lift the stay for lean premix and diffusion flame gas-fired turbines. One commenter asserted that the EPA has discretion to continue the stay to address broader statutory purposes. One commenter suggested that, in light of the fact that the EPA has proposed not to increase the stringency of the rule for the entire source category, the EPA may consider acting to avoid the imposition of standards with which it may be technically or practically impossible to comply either immediately or within 180 days.

Two commenters stated that lifting the stay would cause significant control installation, testing, and compliance costs for hundreds of estimated affected turbines. One commenter asserted that these costs are unwarranted based on the conclusions that do not invalidate the health-risk assessment. The commenters noted that new or reconstructed lean premix gas-fired turbines were highly unlikely to present a health risk even if their formaldehyde emissions were above 91 ppbv. The commenters noted that no new information has been introduced in the 15 years since the stay was issued to undercut this health-risk assessment.

The commenter acknowledged that lifting the stay is necessary because the EPA cannot delist subcategories, but that does not invalidate the health-risk assessment on which the decision to grant the stay was based. The stay has been in place for 15 years, 12 of those since the court decision invalidating delisting of subcategories. The commenter suggested that in light of the low risk and the fact that the EPA is not proposing more stringent emission
limits as a result of the technology review, the EPA should consider setting different standards that do not require immediate compliance.

One commenter also expressed concern about the cost associated with lifting the stay. According to the commenter, the EPA underestimated the cost to comply with the rule for the first year after the final rule. The commenter cited a vendor quote of greater than $2 million to design and install oxidation catalyst control technology for a single simple cycle turbine and depending on the number of turbines that would need to install controls, the cost could be several hundreds of millions, if not billions, of dollars. According to the commenter, the cost could have a real effect on rates paid by electric consumers, given that simple cycle turbines are generally dispatched only at peak hours or to relieve a constraint and thus are often called on during out of order dispatch conditions. The commenter stated that adding the oxidation catalyst costs to the turbine’s overall costs may likely increase the price at which these units bid into the market, and under economic dispatch, these higher prices could set the market price in peak or constraint conditions and potentially impact grid reliability.

Response: With respect to comments regarding the costs that would be incurred to comply with the stayed standards and the commenters’ assertion that such costs are not justified because emissions from the sources are low risk, the EPA did not propose to change or comment on the emission standards or testing requirements, or the costs of the original 2004 rule; therefore, comments on those aspects of the rule are outside the scope of the proposal. Further, the EPA notes that the standards that were stayed were established pursuant to CAA section 112(d)(2) and (3). Standards set under these provisions of CAA section 112 must reflect the maximum degree of reduction in emissions of HAP that is achievable. This level of control is commonly referred to as the maximum achievable control technology (MACT). CAA section 112(d)(3) also establishes a minimum control level for MACT standards, known as the MACT “floor.” The MACT floor is the minimum control level allowed for NESHAP and is defined under section 112(d)(3) of the CAA. For new sources, the MACT standards cannot be less stringent than the emission control that is achieved in practice by the best controlled similar source. The standards that are stayed are MACT floor standards and the EPA cannot establish a standard that is less stringent than the MACT floor based on cost or risk. Further, as is explained in more detail below, even assuming for the sake of argument that commenters are correct that the EPA has discretion to continue the stay or has no legal obligation to remove the stay, the EPA’s view is that it is appropriate to lift the stay at this time despite a pending petition to delist the entire source category and in light of issues concerning EPA authority for issuance of the stay in 2004.

Comment: Numerous commenters stated that the EPA should postpone lifting the stay for new lean premix and diffusion flame gas-fired turbines until a decision is made on the forthcoming petition to delist the entire source category under CAA section 112(c)(9). Commenters stated that the petitioners are submitting new information that suggests the maximum lifetime individual cancer risk for this source category is less than 1-in-1 million and that the HQ is less than 1. Commenters contend that these results show that the risk from this source category meets the threshold for delisting. A commenter noted that it appears that the EPA intended to propose a separate rule to remove the stay at a later date and stated that leaving the existing stay in place pending an evaluation of the new study and a response to any associated delisting petition is reasonable and appropriate.

One commenter noted that the EPA’s rationale for the stay was that it would be “inappropriate and contrary to statutory intent” to require sources to incur costs for installation and testing of controls until a decision was made on whether the sources should be delisted (69 FR 51185; August 18, 2004). At the time the EPA adopted the stay, the commenter noted that the EPA likely believed it would take final action on the initial delisting petition within a short time, suggesting that the EPA’s concern was based on wasteful costs being imposed on a relatively small number of turbines. The commenter asserted that the rationale for the original stay applies now as well, given the new petition, and because the stay has been in place for 15 years, the costs associated with lifting it would be significantly higher than the costs that were avoided by the issuance of the stay. Similarly, two commenters stated that it would be inappropriate to lift the stay now and require sources to take steps and incur significant costs to comply with standards that may only apply for a short period of time and may be eliminated once the petition is evaluated.

Response: As explained in the proposed and final RTR rule, in 2004, the EPA put into place a stay of the effectiveness of the NESHAP for new lean premix gas-fired and diffusion flame gas-fired turbines, pending the outcome of a 2004 proposed delisting. The EPA stated that it would lift the stay if the subcategories were not ultimately delisted, and turbines constructed or reconstructed after January 14, 2003, would then be subject to the final standards. As explained above, the proposal to delist the four subcategories was never finalized in light of the 2007 decision in NRDC v. EPA which addressed limits on the EPA’s ability to delist subcategories. Commenters contend that the EPA should postpone lifting the stay for new lean premix and diffusion flame gas-fired turbines until a decision is made on the petition to delist the entire source category. The petition to delist that commenters refer to was submitted to the Agency on August 28, 2019, with supplemental information provided as recently as March 2021. As discussed previously in section II of this preamble, final action on the source category delisting is not likely to be made in the near term. Although the EPA determined that a stay was appropriate in 2004 to avoid unwarranted expenditures on installation of emission controls which would not be required if the subcategories were delisted, and in the 2020 final RTR, the Agency determined that it would be reasonable to delay taking final action on the proposal to lift the stay for the same reasons in light of the new petition to delist the turbine category, the EPA has since re-evaluated its authority for the stay in light of recent caselaw concerning CAA and APA stays and has been unable to identify any authority for the stay in either the CAA or APA. Further, the commenters did not identify any such authority. In light of the issues concerning the legality of the 2004 stay and the uncertainty concerning the timing and outcome of the EPA’s final decision on the delisting petition explained above, the EPA is taking final action now to lift the stay. In making this determination, the EPA recognizes the potential costs to industry that may be associated with the installation of controls but has determined that the concerns associated with allowing that stay to remain in place outweigh these considerations. The EPA does not believe that it would be appropriate to continue to allow the estimated approximately 250 new gas-fired stationary combustion turbines that have been installed at major sources of HAP since 2003 to operate without emission standards that are required...
under the CAA. Moreover, risk and cost considerations are not relevant to the issue of the EPA’s authority for the stay. Further, the EPA notes that owners and operators of the turbines have been on notice that the stay might be removed from the rule since at least April 2019 when the Agency proposed to remove the stay. In addition, as explained above, the 2004 final stay document explained that the EPA would lift the stay if the subcategories were not ultimately delisted, and that turbines constructed or reconstructed after January 14, 2003, would then be subject to the final standards. The 2007 court decision in NRDC made clear that the EPA could not move forward with the 2004 delisting proposal and that decision put turbine owners and operators on notice that the stay was at risk.

Comment: Several commenters stated that when the EPA established the 91 parts per billion by volume, dry basis (ppbvd) formaldehyde emission limit in 2004, it acknowledged that the standard was based on limited data and might require revision. The commenters stated that the stay of the standards should remain in place until the EPA completes that review and determines whether the standard should be revised.

Two commenters noted that at the time the emission limit was established, the EPA stated in the preamble to the final rule that “[i]f actual emission data demonstrate that we are incorrect, and that sources which properly install and operate an oxidation catalyst cannot consistently achieve compliance, we will revise the standard accordingly” (69 FR 10312; March 5, 2004). One commenter stated at that time, California Air Resources Board (CARB) Methods 430 only detect formaldehyde down to 200–300 ppbvd; but, even today, only the most recent technologies can measure formaldehyde below 100 ppbvd (and the commenter cited an EPRI document describing the accuracy of those technologies as “uncertain”). The commenter stated that sources will need to perform baseline testing to determine whether they can comply with a 91 ppbvd emission limit, and without that test data, the commenter asserted that the EPA does not have the data to determine whether the standard is achievable. The commenter stated that the EPA should delay lifting the stay to allow sufficient time for companies that already have installed oxidation catalysts to complete their testing with the more accurate methodologies now available. If compliance with the limit is an issue, the commenter suggested that the EPA should revisit the standard, as anticipated in the 2004 rule. Similarly, a commenter requested that the EPA revisit its determination of the standard to ensure 91 ppbvd is achievable in light of the operating records that may now be available.

Two commenters provided more specific suggestions for changing the format of the standard. One commenter suggested that the EPA include the subcategory of new lean premix and diffusion flame gas fired turbines in the list of “subcategories with limited requirements” under 40 CFR 63.69090(b). The commenter stated that because risks from this subcategory were low enough to consider delisting, imposing any limits on this subcategory is unnecessary and would result in wasteful and unwarranted expenditure, and these units should only be subject to initial notification. If the EPA determines that a standard is necessary, the other commenter suggested that the EPA consider either an equipment standard or a work practice standard, pursuant to CAA section 112(h). The commenters stated that limitations in the formaldehyde measurement methods may mean that measurement is not practicable due to technological limitations, so the EPA should consider setting a standard under CAA section 112(h)(2)(B). The commenter’s suggested equipment standard would require compliance to be demonstrated by documenting equipment performance, similar to the requirements to verify catalyst performance with periodic portable analyzer tests of CO in the Reciprocating Internal Combustion Engines (RICE) NESHAP (40 CFR part 63, subpart ZZZZ). The commenters suggested that an appropriate work practice standard might include demonstrating compliance for low emitting natural gas-fired units by completing periodic burner tune-ups, analogous to the approach specified for natural gas-fired units in 40 CFR part 63, subpart DDDDD (Boiler NESHAP).

Response: The EPA did not propose to change or solicit comment on the emission standards and therefore comments on those aspects of the rule are outside the scope of the proposal. The EPA notes, however, that it did not finalize the April 12, 2019 proposal to lift the stay when it promulgated the final RTR on March 9, 2020, and so the delay that commenters requested has occurred and sources have had nearly 3 years to conduct and provide to the EPA any baseline testing to determine if there are compliance issues. Further, the formaldehyde emissions data obtained during the original Stationary Combustion Turbine NESHAP rulemaking—as well as during the recent RTR rulemaking—demonstrate that stationary combustion turbines are able to meet the 91 ppbvd formaldehyde emission standard. Moreover, these data demonstrate that the available test methods are able to accurately measure formaldehyde at levels below 91 ppbvd. See for example the data summarized in the memo “Review of the Acute Multiplier Used to Derive Hourly Emission Rates for the Stationary Combustion Turbines Risk Analysis” (Document ID No. EPA–HQ–OAR–2017–0688–0070). The commenters did not provide any information to show that the limit of 91 ppbvd was unachievable.

With respect to the suggestion that the EPA impose only initial notification requirements on new lean premix and diffusion flame gas fired turbines because risks from these subcategories are low, as noted above, it would not be appropriate to eliminate MACT floor emission limits based on risk.

Regarding the comments that the EPA should consider a work practice or equipment standard under CAA section 112(h), commenters did not provide any information to suggest that the criteria for establishment of a work practice standard apply (e.g., that the pollutant cannot be emitted through a conveyance designed and constructed to emit or capture such pollutant or the application of measurement methodology to a particular class of sources is not practicable due to technological and economic limitations). In fact, as noted above, emissions data show that emissions at or below the standard can be measured. Therefore, there does not appear to be a justification for a work practice or equipment standard.

Comment: Many commenters stated that if the EPA does finalize lifting the stay, 180 days is not long enough for owners and operators to conduct all the activities that will be needed for their turbines to come into compliance with the standards. For various reasons, most of the commenters suggested that 3 years, consistent with the period of time allowed in the CAA for existing sources to comply with NESHAP, would be appropriate. One commenter noted that this compliance date should apply for turbines that commenced construction or reconstruction after January 14, 2003, but before April 12, 2019 (the proposal date of the amendment to lift the stay). Commenters also stated that the EPA
should make clear that facilities would have the option to petition for another year to meet the standards if installation of controls is required, per the CAA. Other compliance deadlines that were suggested included from 18 months up to 25 months after the effective date of the removal of the stay.

Commenters stated that the EPA has provided for extensions of compliance deadlines in prior rulemakings. Commenters stated that, as an example, the EPA promulgated an interim final rule in 2014 to extend all Cross-State Air Pollution Rule (CSAPR) compliance deadlines by 3 years to “provide parties with sufficient time to prepare for implementation, and avoid unnecessary regulatory burden” (79 FR 71666; December 3, 2014) after the judicial stay of the CSAPR was lifted by the D.C. Circuit. A commenter provided the additional example of the EPA’s final rule requiring multiple states and the District of Columbia to submit SIPs to address the regional transport of ground-level ozone (commonly known as the “NOX SIP Call”) in 1998, for which it extended the proposed compliance deadline by 8 months, recognizing the utility sector’s concern that there were not enough trained workers, engineering services, or materials and equipment to install the NOX control technology by the initially proposed deadline (63 FR 57356; October 27, 1998).

One commenter stated that when the stay was originally issued, the EPA recognized that many facilities would need to install materials (e.g., oxidation catalyst) to meet the emission limit. In issuing the final stay, commenters noted that the EPA indicated that if the subcategories were not delisted, the stay would be lifted, and all sources in the stayed subcategories would then be subject to the final standards. Commenters further referenced the EPA’s statement that “[t]he sources will then be given the same time to make the requisite demonstration of compliance they would have had if there had been no stay” (69 FR 51185; August 18, 2004). A commenter stated that some companies expressed concern about the timing at that time, but due to the expectation that turbines would be delisted, facilities were not then harmed by the statement and therefore would have likely been unable to litigate the issue.

One commenter further noted that it is unlikely that any party could file a petition for review of the existing stay now, given that the EPA promulgated the stay in 2004 and is not under any court order to lift the stay at this time. Commenters asserted that the 2004 language regarding the timing of compliance after the potential lifting of the stay is reasonably interpreted to provide for adequate time to install the controls, especially given that the EPA indicated that one of the main reasons for staying the rule was to avoid capital expenditures that ultimately would not be required if the delisting was completed. Thus, the commenters asserted that sources legitimately relied on these statements and reasonably expected that the EPA would not lift the stay in a manner that would deprive them of the needed time to install controls that the EPA intended to be deferred by issuing the stay. As a result, commenters stated that during the time the stay has been in place, many turbines have been constructed without oxidation catalysts. A commenter noted that by the EPA’s own estimates, the number of such turbines is almost 200. The commenters asserted that these units have been effectively operating as “existing” units under the CAA.

According to the commenters, now that the EPA has proposed to lift the stay, owners and operators are beginning to develop performance test plans to determine the existing formaldehyde concentration from the turbine exhaust stack during different operating conditions. Commenters stated that sufficient time would be needed for owners and operators to find available testing contractors to perform baseline performance testing for all the affected units. One commenter estimated that this step would take 6 months, and another commenter estimated 1 to 3 months. Several commenters stated that there is limited availability of testing contractors that can perform the necessary Fourier-transform infrared (FTIR) spectroscopy testing; one commenter stated that it appears fewer than five vendors in the country can provide testing with detection levels below 91 ppbv. Therefore, some commenters stated that performance testing could take up to 1 year, and other commenters stated it would likely take longer than the 180 days provided. In addition, one commenter noted that the General Provisions of 40 CFR part 63 require a 60-day notice to the EPA before a performance test that must be taken into account when scheduling the testing. One commenter noted that performance testing could be conducted using an alternative method, but owners and operators could not use the results as the test to demonstrate initial compliance without the EPA’s approval prior to the test.

Several commenters also stated that even if compliance can be achieved without an oxidation catalyst, the owner or operator must either determine the appropriate operating parameter(s) for compliance monitoring and petition the Administrator for approval of site-specific operating limitations or petition the Administrator for approval of no additional operation limitations. The commenters asserted that developing the information to support a petition, submitting the petition, receiving approval for the petition, and scheduling and conducting the initial performance test cannot be accomplished within 180 days. Two commenters stated that this petition process has been used rarely, if ever, so the EPA’s ability and resources to respond to these petitions is largely untested. A commenter further stated that, even if petitions are submitted for a relatively small portion of the affected sources, the number of applications that the EPA is likely to receive could overwhelm the Agency’s ability to provide timely responses (i.e., within 60 days). A commenter stated that the EPA has not committed to a definitive review/comment/approval process timeframe from which an affected source could estimate the necessary amount of time to complete compliance demonstration requirements. Another commenter agreed and specifically requested that the EPA support delegated agencies in undertaking timely review of test plans and report reviews. A commenter also stated that some sources that do not need an oxidation catalyst still may need to make process adjustments and even conduct extensive maintenance activities, such as replacing combustor components, which can only be performed during scheduled outages.

Many commenters noted that for turbines that cannot meet the formaldehyde standard without oxidation catalysts, capital projects will be needed. According to the commenters, significant capital projects at complex plants, especially retrofit projects, usually entail a multi-year effort and often face spatial limitation challenges. Commenters stated that 3 years to design and install controls is typical. Commenters estimated installing oxidation catalyst would take a minimum of 2 years, but one commenter clarified that estimate assumes no delays. A commenter stated that preliminary engineering assessments suggest that even where adequate load capacity is available at a co-generation unit, 3 to 4 years is still aggressive for requirements procurement, and installation. Another commenter agreed, noting that the company has a
significant number of affected units that will likely need substantial infrastructure improvements and specific concerns related to turbines that are used to drive compressors integral to the refrigeration process to liquify natural gas, so it is difficult to determine whether 3 years for compliance would be enough. Commenters stated that in addition to a facility’s individual concerns, the more turbines that need oxidation catalysts, the more time procurement, flow modeling, parameter monitoring, and related support services will need to meet the demands. Commenters also noted that additional design and installation time would be necessary but noted that more than 2 months will likely be needed if there is enough CO oxidation catalysts, and long outages would be needed for installation due to high exhaust temperatures.

Commenters noted that necessary capital projects would include the following activities (in addition to initial performance testing) and estimated the amount of time to complete selected activities:

- Engineer and design a system to add an oxidation catalyst to reduce CO emissions to meet the formaldehyde standard. One commenter estimated that this step would take 1 year. Another commenter estimated that design would take 6 months and engineering would be 12 months. A commenter estimated that 2 to 5 months would be needed just to evaluate whether structural changes are needed to the turbine ductwork to install the catalyst. Two commenters stated that at least 1 year is needed to plan and install oxidation catalysts.

- Develop a procurement specification for vendors to add an oxidation catalyst, review bids, and select the vendor. One commenter estimated that these activities would take 3 to 7 months and other commenters estimated 6 months.

- Procure the CO oxidation catalyst and any additional associated equipment. A commenter estimated that this step would take 6 months, provided there is enough CO oxidation catalyst available based on demand. Another commenter estimated that 2 to 7 months would be necessary but noted that more than 2 months will likely be needed if there are competing orders. One commenter stated that engineering, procurement, flow modeling, installation, and any necessary modifications to existing equipment (e.g., ductwork modifications) and software would require at least 9 months and more likely 1 year to complete.

- Shut down the combustion turbine, install the oxidation catalyst controls, and then start up the system with new oxidation catalyst. Some commenters estimated that this step would take 6 months and another commenter estimated 1 to 5 months.

- Implement all procedures and systems for parameter monitoring, recordkeeping, and reporting; conduct performance testing for initial compliance; and account for any additional time for contingencies for the previous steps. One commenter estimated that this step would take 6 months. Another commenter estimated that performance testing would take 1 month. One commenter estimated 3 months to start up and test the new equipment. A commenter stated that the amount of time needed to schedule and conduct performance testing would be similar to the time needed for initial testing.

- Ensure that necessary changes are made to the air permit. One commenter stated that for new construction or retrofits, permit amendments would be required prior to construction activities and the permit approval time would be longer than 180 days. One commenter stated that it may take 6 months or more to modify a major source permit. Another commenter noted that for simpler permit amendments, such as changing catalyst specifications, if the application is submitted at the time the catalyst design is determined and approval is granted within 45 days, this step could be concurrent with other activities and would not necessarily add time to the schedule. A commenter also noted that it is possible that addition of a catalyst for formaldehyde control could increase criteria pollutants and require permit action under New Source Review.

Commenters also noted that public power utilities are entities of state and local government and often must work through their governing boards or city councils to gain funding and approval for capital projects. One commenter stated that this approval process may require obtaining financing or issuing debt/bonds to pay for the projects and coordinating with contractors, labor unions, and crane operators, along with any permits required. The timeframe to secure financing would be in addition to contracting, engineering, equipment installation and testing schedules. The commenter noted that this process would likely take about 6 to 8 months for an oxidation catalyst project. A commenter stated that military installations with affected turbines would need to secure appropriations and enter into the contracting process to meet the requirements. A commenter noted that facility budgets are set annually and are integrated into a company’s long-range planning. The commenter noted that retrofit projects of this magnitude and affecting multiple facilities would require adjustments and approvals at many levels that may take many months. Another commenter agreed that the significant capital expense for a catalyst would require time to plan and receive approvals.

Two commenters cited particular concerns regarding combustion turbines that are designed for both power and steam generation (combined heat and power (CHP) or co-generation units), noting that they are often highly integrated with other operations. Control device design, construction, and operation must carefully consider site power needs, coordination with the power grid external to the site, and site steam balances. Two other commenters agreed and stated that industrial facilities that have installed stationary combustion turbines cannot meet the site’s full steam and electrical load using boilers and purchased electricity. A facility’s main transformers and switch gear may not have the capability of running the entire facility at peak load with the site’s turbines offline, even if temporary steam boilers could be rented, so facilities typically schedule their turbine outages to coincide with facility outages, when steam and electrical load drop. A commenter noted that the other alternative is to begin load shaving, which carries with it the potential for process unit upsets and unplanned shutdowns. Commenters stated that for facilities that rely on stationary gas turbines to provide steam and electricity for multiple pieces of equipment, extensive utility load studies would be needed to determine the probability of running near the edge of compliance and to plan any turbine shutdown that does not coincide with a major facility turnaround (e.g., whether some equipment can be run without a turbine online). A commenter also stated that for the Electrical Reliability Council of Texas region there is sensitivity regarding even minor generator maintenance during higher electrical demand months.

To address these concerns, one commenter noted that turbine downtime to install controls would need to be performed during the next scheduled facility outage, which typically occurs at a 2-year (or longer) frequency. A commenter suggested that the EPA provide a compliance deadline of the first scheduled turnaround following 3
years after promulgation for CHP sources. Since facility turnarounds can involve a wide range of extensive site maintenance activities (e.g., planned equipment replacement, cleaning, and inspection, among others), the commenter stated that it would be reasonable to coordinate this turnaround time with the downtime necessary to install and implement the design and modification changes, which would minimize the amount of facility time spent offline, ensure steadier production rates across the site, and maximize overall efficiency. Another commenter agreed that additional compliance time may be required to integrate unit down times into facility steam and electrical grid demand timing constraints. A commenter stated that maintenance planning schedules are developed multiple years in advance in order to efficiently coordinate downtime for maintenance and new project construction, and changes to these schedules cannot be implemented until engineering is complete and control equipment availability is known.

Commenters also cited particular concerns with retrofitting turbines that have existing SCRs with oxidation catalysts to meet the standard. One commenter noted that some turbine manufacturers have indicated that further testing will be required before they know whether a retrofitted SCR would be sufficient to attain compliance with the formaldehyde standard. A commenter expressed concern that installation of an oxidation catalyst could negatively impact SCR performance. The commenter noted that the installation would cause changes in temperature and pressure flow and could necessitate increased ammonia usage, all of which could stress the SCR and degrade performance over time. A commenter stated that one member company expects to need to remove and re-engineer their SCR to accommodate oxidation catalysts. The commenter stated that this will require design and engineering time, permitting time, procurement time, construction of the controls, removal of the current SCRs, fabrication of combined system, and reinstallation, and the installation timing will need to be integrated with facility turnaround plans. Commenters stated that turbines with existing SCRs may need to use dual-function or dual-purpose catalysts, which are not “off-the-shelf” catalysts. A commenter stated that there is no significant increase in manufacturing time for dual-purpose catalysts, but there are currently only two suppliers of dual-purpose catalysts, so owners and operators may need to account for additional time due to high demand.

Without sufficient time to comply, one commenter stated that many facilities could be out of compliance before controls can be installed. In addition, the commenter noted that if the units are shut down to avoid non-compliance, alternative sources of power would be tapped to fill in any void. The commenter stated that the impact would likely be less efficient facility operation (i.e., increased greenhouse gas and other emissions), reduced reliability of area power grids, and a net increase in emissions compared to running efficient turbine systems. Alternatively, the commenter stated that companies will likely need to either seek compliance schedules or consent agreements or use other legal mechanisms in order to keep operating.

Response: In the original 2004 rulemaking establishing the stay, the EPA clearly indicated that the stay was only being established due to the proposed delisting of certain subcategories of stationary combustion turbines, and that the stay would be lifted if the subcategories were not ultimately delisted. (69 FR 51185; August 18, 2004). As discussed previously, the proposal to delist the four subcategories was never finalized in light of the 2007 decision in NHDc v. EPA, 489 F.3d 1364 (D.C. Cir. 2007), which addressed limits on the EPA’s ability to delist subcategories. Therefore, the EPA is taking action to remove the stay that was put in place while the proposed delisting of subcategories was evaluated. Turbine owners and operators have known since the 2007 decision that the basis for the stay was in question.

Moreover, the EPA indicated in the 2004 rulemaking establishing the stay that “if the subcategories are not ultimately delisted, the stay will be lifted, and all sources in the subcategories constructed or reconstructed after January 14, 2003 will then be subject to the final standards.” The EPA also said that sources would be given the same time to demonstrate initial compliance with the emission standards if the stay was lifted as they would have had if there had been no stay. (69 FR 18341; April 7, 2004). As stated in 40 CFR 63.6110(a), owners and operators have 180 calendar days for the initial compliance demonstration. The EPA also indicated in the 2019 proposal to remove the stay that owners and operators of turbines that were subject to the stay of the standards for new gas turbines were required to comply with all applicable regulatory requirements immediately upon a final action to remove the stay and would have 180 days from the date the stay is removed for the initial compliance demonstration (84 FR 15068; April 12, 2019). Therefore, owners and operators have had notice of the requirements that would apply immediately if and when the stay was lifted and there was no basis for commenter to interpret the EPA’s statements concerning initial compliance demonstration as suggesting otherwise.

Regarding the comments that the EPA has provided for extensions of compliance deadlines in CSAPR and the NOx SIP Call, the EPA notes that in the EPA rules cited by the commenter, the EPA merely codified legally enforceable modifications to deadlines that were imposed by a court. There is no such court action that modifies the compliance deadlines that will be triggered when the stay is lifted. The commenters did not identify any authorities which would allow the EPA to extend or suspend the compliance deadlines for new sources (any source that was constructed or reconstructed after the 2003 NESHAP proposal) established under the CAA and the Part 63 regulations once the stay is lifted.

Comment: One commenter stated that if the EPA finalizes lifting the stay without providing additional time to comply with the rule, the EPA should provide for an administrative noncompliance procedure for owners/operators of turbines affected by the 2004 stay of the rule. The commenter noted that the EPA provided an administrative noncompliance process for certain electric steam generating utility units that were unable to comply timely with the Mercury and Air Toxics Standards (MATS) and asserted that the EPA should provide a similar procedure for stationary combustion turbines that are newly subject to subpart YYYY’s numeric emission limitations. The commenter stated that although many more turbines might be affected than boilers that required additional time to meet the MATS, far lower emissions would be likely.

The commenter’s suggested procedure would allow owners and operators of turbines that cannot comply immediately with subpart YYYY to provide notice to the Agency of their noncompliance without penalty. The commenter then suggested that thereafter, those affected operators would be given the opportunity to enter into a compliance schedule with enforceable milestones to meet the standard. The commenter stated that affected units should be required to notify their respective state and EPA regional authorities within a short
period of time (e.g., 14 days after promulgation by providing the affected plant’s name and address, the name of the responsible officer, and the date of installation of the affected turbine(s). The commenter also suggested that upon receipt of a complete notification, the unit should be eligible for a noncompliance period for a period of no longer than 3 years, provided that the owner/operator subsequently submits a compliance plan with specific milestones for achieving compliance including the emission testing of units newly subject to the numeric emission limits, and, for those units that cannot meet those emission limits, the design, purchase, and installation of pollution controls and parametric monitoring devices.

The commenter also stated that it is likely that the EPA would need a separate rulemaking to add an administrative noncompliance procedure to subpart YYYY. However, the commenter noted that the EPA’s Office of Enforcement and Compliance Assurance could administer an administrative order on consent outside of the rulemaking process, similar to the procedure used by the Agency in the MATS. The commenter recommended that the procedure be implemented separately from this rulemaking, in part because each administrative order on consent would be based on a case-by-case review of facts and the EPA’s exercise of the Agency’s enforcement discretion.

Response: The EPA stated in the memo setting forth the MATS Enforcement Response Policy that the EPA generally does not speak publicly to the intended scope of its enforcement efforts but was doing so in the case of the MATS rule to provide confidence with respect to electric reliability. The commenters did not provide any information to show that such reliability considerations are also a factor for stationary combustion turbine facilities that will be impacted by the removal of the stay. The EPA also notes that only five Administrative Orders were issued in connection with the MATS Policy. The EPA does not agree that it is necessary to establish a special administrative noncompliance procedure for this action. For a source that fails to comply with the applicable requirements of subpart YYYY once the stay is lifted, the EPA will determine an appropriate response, if any, based on, among other things, the good faith efforts of the source to comply.

IV. Impacts of the Final Rule

The environmental, energy, environmental justice, and economic impacts of the Stationary Combustion Turbine NESHAP were addressed in the original 2004 final rule. See 69 FR 10533–10534 (March 5, 2004). No additional impacts are expected as a result of this final rule.

V. Statutory and Executive Order Reviews

Additional information about these statutes and Executive Orders can be found at https://www.epa.gov/laws-regulations/laws-and-executive-orders.

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

This action is not a significant regulatory action and was, therefore, not submitted to the Office of Management and Budget (OMB) for review.

B. Paperwork Reduction Act (PRA)

This action does not impose any new information collection burden under the PRA. OMB has previously approved the information collection activities contained in the existing regulations and has assigned OMB control number 2060–0541. This action does not impose an information collection burden because the EPA is not making any changes to the information collection requirements.

C. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. In making this determination, the impact of concern is any significant adverse economic impact on small entities. An agency may certify that a rule will not have a significant economic impact on a substantial number of small entities if the rule relieves regulatory burden, has no net burden, or otherwise has a positive economic effect on the small entities subject to the rule. The March 5, 2004, Stationary Combustion Turbine NESHAP final rule was certified as not having a significant economic impact on a substantial number of small entities. This final rule does not impose any additional burden on affected sources beyond the burden already addressed in the original 2004 rule. The EPA has, therefore, concluded that this action will have no net regulatory burden for all directly regulated small entities.

D. Unfunded Mandates Reform Act (UMRA)

This action does not contain an unfunded mandate of $100 million or more as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. The action imposes no enforceable duty on any state, local, or tribal governments or the private sector.

E. Executive Order 13132: Federalism

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

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

This action does not have tribal implications as specified in Executive Order 13175. None of the stationary combustion turbines that have been identified as being affected by this action are owned or operated by tribal governments or located within tribal lands. Thus, Executive Order 13175 does not apply to this action.

G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that the EPA has reason to believe may disproportionately affect children, per the definition of “covered regulatory action” in section 2–202 of the Executive Order. This action is not subject to Executive Order 13045 because it does not concern an environmental health or safety risk.

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

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

I. National Technology Transfer and Advancement Act (NTTAA)

This rulemaking does not involve technical standards.


The EPA believes that this action does not have disproportionately high and adverse human health or environmental effects on minority populations, low-income populations and/or indigenous peoples, as specified in Executive Order 12898 (59 FR 7629; February 16, 1994).

The EPA performed a demographic analysis of the Stationary Combustion Turbine source category for the RTR, which is an assessment of risks to individual demographic groups of the populations living within 5 kilometers (km) and within 50 km of the facilities. The documentation for the analysis can be found in the technical report, Risk and Technology Review—Analysis of Demographic Factors for Populations Living Near Stationary Combustion Turbines Source Category Operations (Document ID No. EPA–HQ–OAR–2017–0688–0071). In the analysis, the EPA evaluated the distribution of HAP-related cancer and noncancer risks from Stationary Combustion Turbine source category emissions across different demographic groups within the populations living near facilities. The results of that analysis indicated that there is not a disproportionately high and adverse human health or environmental effects on minority populations, low-income populations, and/or indigenous peoples. This action will further reduce the risks from the source category emissions.

K. Congressional Review Act (CRA)

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

List of Subjects in 40 CFR Part 63

Environmental protection, Administrative practice and procedure, Air pollution control, Reporting and recordkeeping requirements.

Michael S. Regan,
Administrator.

For the reasons set forth in the preamble, 40 CFR part 63 is amended as follows:

PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES

1. The authority citation for part 63 continues to read as follows:

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