

delivered coal, natural gas, and retail electricity prices are not projected to change. The EPA does not project incremental changes in existing operational capacity to occur in response to the final rule. Coal production for use in the power sector is not projected to change significantly by 2028.

The short-term estimates for employment needed to design, construct, and install the control equipment in the 3-year period before the compliance date are also provided using an approach that estimates employment impacts for the environmental protection sector based on projected changes from IPM on the number and scale of pollution controls and labor intensities in relevant sectors. Finally, some of the other types of employment impacts that will be ongoing are estimated using IPM outputs and labor intensities, as reported in section 5 of the RIA.

#### E. What are the benefits?

The RIA for this action analyzes the benefits associated with the projected emission reductions under this rule. This final rule is projected to reduce emissions of Hg and non-Hg HAP metals, as well as PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub> and CO<sub>2</sub> nationwide. The potential impacts of these emission reductions are discussed in detail in section 4 of the RIA. The EPA notes that the benefits analysis is distinct from the statutory determinations finalized herein, which are based on the statutory factors the EPA is required to consider under CAA section 112. The assessment of benefits described here and in the RIA is presented solely for the purposes of complying with Executive Order 12866, as amended by Executive Order 14094, and providing the public with a complete depiction of the impacts of the rulemaking.

Hg is a persistent, bioaccumulative toxic metal emitted from power plants that exists in three forms: gaseous elemental Hg, inorganic Hg compounds, and organic Hg compounds ( e.g., methylmercury). Hg can also be emitted in a particle-bound form. Elemental Hg can exist as a shiny silver liquid, but readily vaporizes into air. Airborne elemental Hg does not quickly deposit or chemically react in the atmosphere, resulting in residence times that are long enough to contribute to global scale deposition. Oxidized Hg and particle-bound Hg deposit quickly from the atmosphere impacting local and regional areas in proximity to sources. Methylmercury is formed by microbial action in the top layers of sediment and soils, after Hg has precipitated from the

air and deposited into waterbodies or land. Once formed, methylmercury is taken up by aquatic organisms and bioaccumulates up the aquatic food web. Larger predatory fish may have methylmercury concentrations many times that of the concentrations in the freshwater body in which they live.

All forms of Hg are toxic, and each form exhibits different health effects. Acute (short-term) exposure to high levels of elemental Hg vapors results in central nervous system (CNS) effects such as tremors, mood changes, and slowed sensory and motor nerve function. Chronic (long-term) exposure to elemental Hg in humans also affects the CNS, with effects such as erethism (increased excitability), irritability, excessive shyness, and tremors. The major effect from chronic ingestion or inhalation of low levels of inorganic Hg is kidney damage.

Methylmercury is the most common organic Hg compound in the environment. Acute exposure of humans to very high levels of methylmercury results in profound CNS effects such as blindness and spastic quadriparesis. Chronic exposure to methylmercury, most commonly by consumption of fish from Hg contaminated waters, also affects the CNS with symptoms such as paresthesia (a sensation of pricking on the skin), blurred vision, malaise, speech difficulties, and constriction of the visual field. Ingestion of methylmercury can lead to significant developmental effects, such as IQ loss measured by performance on neurobehavioral tests, particularly on tests of attention, fine motor-function, language, and visual spatial ability. In addition, evidence in humans and animals suggests that methylmercury can have adverse effects on both the developing and the adult cardiovascular system, including fatal and non-fatal ischemic heart disease (IHD). Further, nephrotoxicity, immunotoxicity, reproductive effects (impaired fertility), and developmental effects have been observed with methylmercury exposure in animal studies.<sup>91</sup> Methylmercury has some genotoxic activity and can cause chromosomal damage in several experimental systems. The EPA has concluded that mercuric chloride and methylmercury are possibly carcinogenic to humans.<sup>92 93</sup>

<sup>91</sup> Agency for Toxic Substances and Disease Registry (ATSDR). Toxicological Profile for Mercury. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA. 2022.

<sup>92</sup> U.S. Environmental Protection Agency. Integrated Risk Information System (IRIS) on Methylmercury. National Center for Environmental

The projected emissions reductions of Hg are expected to lower deposition of Hg into ecosystems and reduce U.S. EGU attributable bioaccumulation of methylmercury in wildlife, particularly for areas closer to the effected units subject to near-field deposition. Subsistence fishing is associated with vulnerable populations. Methylmercury exposure to subsistence fishers from lignite-fired units is below the current RfD for methylmercury neurodevelopmental toxicity. The EPA considers exposures at or below the RfD for methylmercury unlikely to be associated with appreciable risk of deleterious effects across the population. However, the RfD for methylmercury does not represent an exposure level corresponding to zero risk; moreover, the RfD does not represent a bright line above which individuals are at risk of adverse effects. Reductions in Hg emissions from lignite-fired facilities should further reduce exposure to methylmercury for subsistence fisher sub-populations located in the vicinity of these facilities, which are all located in North Dakota, Texas, and Mississippi.

In addition, U.S. EGUs are a major source of HAP metals emissions including selenium, arsenic, chromium, nickel, and cobalt, cadmium, beryllium, lead, and manganese. Some HAP metals emitted by U.S. EGUs are known to be persistent and bioaccumulative and others have the potential to cause cancer. Exposure to these HAP metals, depending on exposure duration and levels of exposures, is associated with a variety of adverse health effects. The emissions reductions projected under this final rule are expected to reduce human exposure to non-Hg HAP metals, including carcinogens.

Furthermore, there is the potential for reductions in Hg and non-Hg HAP metal emissions to enhance ecosystem services and improve ecological outcomes. The reductions will potentially lead to positive economic impacts although it is difficult to estimate these benefits and, consequently, they have not been included in the set of quantified benefits.

As explained in section IX.B., the continuous monitoring of fPM required in this rule may induce further reductions of fPM and non-Hg HAP metals than we project in the RIA for

Assessment, Office of Research and Development, Washington, DC. 2001.

<sup>93</sup> U.S. Environmental Protection Agency. Integrated Risk Information System (IRIS) on Mercuric Chloride. National Center for Environmental Assessment, Office of Research and Development, Washington, DC. 1995.

this action. As a result, there may be additional unquantified beneficial health impacts from these potential reductions. The continuous monitoring of fPM required in this rule is also likely to provide several additional benefits to the public which are not quantified in this rule, including greater certainty, accuracy, transparency, and granularity in fPM emissions information than exists today.

The rule is also expected to reduce emissions of direct PM<sub>2.5</sub>, NO<sub>x</sub>, and SO<sub>2</sub> nationally throughout the year. Because NO<sub>x</sub> and SO<sub>2</sub> are also precursors to secondary formation of ambient PM<sub>2.5</sub>, reducing these emissions would reduce human exposure to ambient PM<sub>2.5</sub> throughout the year and would reduce the incidence of PM<sub>2.5</sub>-attributable health effects. The rule is also expected to reduce ozone-season NO<sub>x</sub> emissions nationally in most years of analysis. In the presence of sunlight, NO<sub>x</sub>, and volatile organic compounds (VOCs) can undergo a chemical reaction in the atmosphere to form ozone. Reducing NO<sub>x</sub> emissions in most locations reduces human exposure to ozone and reduces the incidence of ozone-related health effects, although the degree to which ozone is reduced will depend in part on local concentration levels of VOCs.

The health effect endpoints, effect estimates, benefit unit values, and how they were selected, are described in the technical support document titled *Estimating PM<sub>2.5</sub> minus and Ozone-Attributable Health Benefits (2023)*. This document describes our peer-reviewed approach for selecting and quantifying adverse effects attributable to air pollution, the demographic and health data used to perform these calculations, and our methodology for valuing these effects.

Because of projected changes in dispatch under the final requirements, the rule is also projected to impact CO<sub>2</sub> emissions. The EPA estimates the climate benefits of CO<sub>2</sub> emission reductions expected from the final rule using estimates of the social cost of carbon (SC-CO<sub>2</sub>) that reflect recent advances in the scientific literature on

climate change and its economic impacts and that incorporate recommendations made by the National Academies of Science, Engineering, and Medicine.<sup>94</sup> The EPA published and used these estimates in the RIA for the December 2023 Natural Gas Sector final rule titled *Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review (2023 Oil and Natural Gas NSPS/EG)*.<sup>95</sup> The EPA solicited public comment on the methodology and use of these estimates in the RIA for the Agency's December 2022 Oil and Natural Gas Sector supplemental proposal<sup>96</sup> that preceded the 2023 Oil and Natural Gas NSPS/EG and has conducted an external peer review of these estimates. The response to public comments document and the response to peer reviewer recommendations can be found in the docket for the 2023 Oil and Natural Gas NSPS/EG action. Complete information about the peer review process is also available on the EPA's website.<sup>97</sup>

Section 4.4 within the RIA for this final rulemaking provides an overview of the methodological updates incorporated into the SC-CO<sub>2</sub> estimates used in this final RIA.<sup>98</sup> A more detailed

<sup>94</sup> National Academies of Sciences, Engineering, and Medicine (National Academies). 2017. *Valuing Climate Damages: Updating Estimation of the Social Cost of Carbon Dioxide*. National Academies Press.

<sup>95</sup> Regulatory Impact Analysis of the Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review, Docket ID No. EPA-HQ-OAR-2021-0317, December 2023.

<sup>96</sup> Supplemental Notice of Proposed Rulemaking for Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review, 87 FR 74702 (December 6, 2022).

<sup>97</sup> <https://www.epa.gov/environmental-economics/scghg-td-peer-review>.

<sup>98</sup> Note that the RIA for the proposal of this rulemaking used the SC-CO<sub>2</sub> estimates from the Interagency Working Group's (IWG) February 2021 *Social Cost of Greenhouse Gases Technical Support Document (TSD)* (IWG 2021) to estimate climate benefits. These SC-CO<sub>2</sub> estimates were interim values recommended for use in benefit-cost analyses until updated estimates of the impacts of

explanation of each input and the modeling process is provided in the final technical report, *EPA Report on the Social Cost of Greenhouse Gases: Estimates Incorporating Recent Scientific Advances*.<sup>99</sup>

The SC-CO<sub>2</sub> is the monetary value of the net harm to society associated with a marginal increase in CO<sub>2</sub> emissions in a given year, or the benefit of avoiding that increase. In principle, SC-CO<sub>2</sub> includes the value of all climate change impacts both negative and positive, including, but not limited to, changes in net agricultural productivity, human health effects, property damage from increased flood risk and natural disasters, disruption of energy systems, risk of conflict, environmental migration, and the value of ecosystem services. The SC-CO<sub>2</sub>, therefore, reflects the societal value of reducing emissions of CO<sub>2</sub> by one metric ton and is the theoretically appropriate value to use in conducting benefit-cost analyses of policies that affect CO<sub>2</sub> emissions. In practice, data and modeling limitations restrain the ability of SC-CO<sub>2</sub> estimates to include all physical, ecological, and economic impacts of climate change, implicitly assigning a value of zero to the omitted climate damages. The estimates are, therefore, a partial accounting of climate change impacts and likely underestimate the marginal benefits of abatement.

Table 10 of this document presents the estimated PV and EAV of the projected health and climate benefits across the regulatory options examined in the RIA in 2019 dollars discounted to 2023.

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climate change could be developed. Estimated climate benefits using these interim SC-CO<sub>2</sub> values (IWG 2021) are presented in Appendix B of the RIA for this final rulemaking for comparison purposes.

<sup>99</sup> Supplementary Material for the Regulatory Impact Analysis for the Final Rulemaking, "Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review," *EPA Report on the Social Cost of Greenhouse Gases: Estimates Incorporating Recent Scientific Advances*, Docket ID No. EPA-HQ-OAR-2021-0317, November 2023.

**Table 10. Projected Benefits of the Final Rule, 2028 through 2037 (Millions 2019\$, Discounted to 2023)<sup>a</sup>**

Present Value (PV)			
	2% Discount Rate	3% Discount Rate	7% Discount Rate
Health Benefits <sup>c</sup>	300	260	180
Climate Benefits <sup>d</sup>	130	130	130
Total Monetized Benefits <sup>e</sup>	420	390	300
Equivalent Annual Value (EAV) <sup>b</sup>			
	2% Discount Rate	3% Discount Rate	7% Discount Rate
Health Benefits <sup>c</sup>	33	31	25
Climate Benefits <sup>d</sup>	14	14	14
Total Monetized Benefits <sup>e</sup>	47	45	39
Non-Monetized Benefits	Benefits from reductions of about 900 to 1000 pounds of Hg annually		
	Benefits from reductions of at least 4 to 7 tons of non-Hg HAP metals annually		
	Benefits from improved water quality and availability		
	Benefits from the increased transparency, compliance assurance, and accelerated identification of anomalous emission anticipated from requiring PM CEMS		

<sup>a</sup> Values have been rounded to two significant figures. Rows may not appear to sum correctly due to rounding.

<sup>b</sup> The EAV of benefits are calculated over the 10-year period from 2028 to 2037.

<sup>c</sup> The projected monetized air quality-related benefits include those related to public health associated with reductions in PM<sub>2.5</sub> and ozone concentrations. The projected health benefits are associated with several point estimates and are presented at real discount rates of 2, 3, and 7 percent.

<sup>d</sup> Monetized climate benefits are based on reductions in CO<sub>2</sub> emissions and are calculated using three different estimates of the social cost of carbon dioxide (SC-CO<sub>2</sub>) (under 1.5 percent, 2.0 percent, and 2.5 percent near-term Ramsey discount rates). For the presentational purposes of this table, we show the climate benefits associated with the SC-CO<sub>2</sub> at the 2 percent near-term Ramsey discount rate. Please see section 4 of the RIA for the full range of monetized climate benefit estimates.

<sup>e</sup> The list of non-monetized benefits does not include all potential non-monetized benefits. See table 4-8 of the RIA for a more complete list.

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This final rule is projected to reduce PM<sub>2.5</sub> and ozone concentrations, producing a projected PV of monetized health benefits of about \$300 million, with an EAV of about \$33 million discounted at 2 percent. The projected PV of monetized climate benefits of the final rule is estimated to be about \$130 million, with an EAV of about \$14 million using the SC-CO<sub>2</sub> discounted at

2 percent.<sup>100</sup> Thus, this final rule would

<sup>100</sup> Monetized climate benefits are discounted using a 2 percent discount rate, consistent with the EPA's updated estimates of the SC-CO<sub>2</sub>. The 2003 version of OMB's Circular A-4 had generally recommended 3 percent and 7 percent as default discount rates for costs and benefits, though as part of the Interagency Working Group on the Social Cost of Greenhouse Gases, OMB had also long recognized that climate effects should be discounted only at appropriate consumption-based discount rates. In November 2023, OMB finalized

an update to Circular A-4, in which it recommended the general application of a 2 percent discount rate to costs and benefits (subject to regular updates), as well as the consideration of the shadow price of capital when costs or benefits are likely to accrue to capital (OMB 2023). Because the SC-CO<sub>2</sub> estimates reflect net climate change damages in terms of reduced consumption (or monetary consumption equivalents), the use of the social rate of return on capital (7 percent under

generate a PV of monetized benefits of \$420 million, with an EAV of \$47 million discounted at a 2 percent rate.

At a 3 percent discount rate, this final rule is expected to generate projected PV of monetized health benefits of \$260 million, with an EAV of about \$31 million discounted at 3 percent. Climate benefits remain discounted at 2 percent in this benefits analysis and are estimated to be about \$130 million, with an EAV of about \$14 million using the SC-CO<sub>2</sub>. Thus, this final rule would generate a PV of monetized benefits of \$390 million, with an EAV of \$45 million discounted at a 3 percent rate.

At a 7 percent discount rate, this final rule is expected to generate projected PV of monetized health benefits of \$180 million, with an EAV of about \$25 million discounted at 7 percent. Climate benefits remain discounted at 2 percent in this benefits analysis and are estimated to be about \$130 million, with an EAV of about \$14 million using the SC-CO<sub>2</sub>. Thus, this final rule would generate a PV of monetized benefits of \$300 million, with an EAV of \$39 million discounted at a 7 percent rate.

The benefits from reducing Hg and non-Hg HAP metals and from unquantified improvements in water quality were not monetized and are therefore not directly reflected in the monetized benefit-cost estimates associated with this rulemaking. Potential benefits from the increased transparency and accelerated identification of anomalous emission anticipated from requiring PM CEMS were also not monetized in this analysis and are therefore also not directly reflected in the monetized benefit-cost comparisons. We nonetheless consider these impacts in our evaluation of the net benefits of the rule and find that, if we were able to monetize these beneficial impacts, the final rule would have greater net benefits than shown in table 11 of this document.

#### F. What analysis of environmental justice did we conduct?

For purposes of analyzing regulatory impacts, the EPA relies upon its June 2016 “Technical Guidance for Assessing Environmental Justice in Regulatory Analysis,” which provides recommendations that encourage analysts to conduct the highest quality analysis feasible, recognizing that data limitations, time, resource constraints, and analytical challenges will vary by

media and circumstance. The Technical Guidance states that a regulatory action may involve potential EJ concerns if it could: (1) create new disproportionate impacts on communities with EJ concerns; (2) exacerbate existing disproportionate impacts on communities with EJ concerns; or (3) present opportunities to address existing disproportionate impacts on communities with EJ concerns through this action under development.

The EPA’s EJ technical guidance states that “[t]he analysis of potential EJ concerns for regulatory actions should address three questions: (A) Are there potential EJ concerns associated with environmental stressors affected by the regulatory action for population groups of concern in the baseline? (B) Are there potential EJ concerns associated with environmental stressors affected by the regulatory action for population groups of concern for the regulatory option(s) under consideration? (C) For the regulatory option(s) under consideration, are potential EJ concerns created or mitigated compared to the baseline?”<sup>101</sup>

The environmental justice analysis is presented for the purpose of providing the public with as full as possible an understanding of the potential impacts of this final action. The EPA notes that analysis of such impacts is distinct from the determinations finalized in this action under CAA section 112, which are based solely on the statutory factors the EPA is required to consider under that section. To address these questions in the EPA’s first quantitative EJ analysis in the context of a MATS rule, the EPA developed a unique analytical approach that considers the purpose and specifics of this rulemaking, as well as the nature of known and potential disproportionate and adverse exposures and impacts. However, due to data limitations, it is possible that our analysis failed to identify disparities that may exist, such as potential EJ characteristics (e.g., residence of historically red-lined areas), environmental impacts (e.g., other ozone metrics), and more granular spatial resolutions (e.g., neighborhood scale) that were not evaluated. Also due to data and resource limitations, we discuss HAP and climate EJ impacts of this action qualitatively (section 6 of the RIA).

For this rule, we employ two types of analysis to respond to the previous three questions: proximity analyses and exposure analyses. Both types of

analysis can inform whether there are potential EJ concerns in the baseline (question 1).<sup>102</sup> In contrast, only the exposure analyses, which are based on future air quality modeling, can inform whether there will be potential EJ concerns after implementation of the regulatory options under consideration (question 2) and whether potential EJ concerns will be created or mitigated compared to the baseline (question 3). While the exposure analysis can respond to all three questions, several caveats should be noted. For example, the air pollutant exposure metrics are limited to those used in the benefits assessment. For ozone, that is the maximum daily 8-hour average, averaged across the April through September warm season (AS-MO3) and for PM<sub>2.5</sub> that is the annual average. This ozone metric likely smooths potential daily ozone gradients and is not directly related to the National Ambient Air Quality Standards (NAAQS), whereas the PM<sub>2.5</sub> metric is more similar to the long-term PM<sub>2.5</sub> standard. The air quality modeling estimates are also based on state and fuel level emission data paired with facility-level baseline emissions and provided at a resolution of 12 square kilometers. Additionally, here we focus on air quality changes due to this rulemaking and infer post-policy ozone and PM<sub>2.5</sub> exposure burden impacts. Note, we discuss HAP and climate EJ impacts of this action qualitatively (section 6 of the RIA).

Exposure analysis results are provided in two formats: aggregated and distributional. The aggregated results provide an overview of potential ozone exposure differences across populations at the national- and state-levels, while the distributional results show detailed information about ozone concentration changes experienced by everyone within each population.

In section 6 of the RIA, we utilize the two types of analysis to address the three EJ questions by quantitatively evaluating: (1) the proximity of affected facilities to various local populations with potential EJ concerns (section 6.4); and (2) the potential for disproportionate ozone and PM<sub>2.5</sub> concentrations in the baseline and concentration changes after rule implementation across different demographic groups on the basis of race, ethnicity, poverty status, employment status, health insurance status, life expectancy, redlining, Tribal land, age, sex, educational attainment,

OMB Circular A-4 (2003)) to discount damages estimated in terms of reduced consumption would inappropriately underestimate the impacts of climate change for the purposes of estimating the SC-CO<sub>2</sub>. See Section 4.4 of the RIA for more discussion.

<sup>101</sup> See <https://www.epa.gov/environmental-justice/technical-guidance-assessing-environmental-justice-regulatory-analysis>.

<sup>102</sup> The baseline for proximity analyses is current population information, whereas the baseline for ozone exposure analyses are the future years in which the regulatory options will be implemented (e.g., 2023 and 2026).

and degree of linguistic isolation (section 6.5). It is important to note that due to the small magnitude of underlying emissions changes, and the corresponding small magnitude of the ozone and PM<sub>2.5</sub> concentration changes, the rule is expected to have only a small impact on the distribution of exposures across each demographic group. Each of these analyses should be considered independently of each other, as each was performed to answer separate questions, and is associated with unique limitations and uncertainties.

Baseline demographic proximity analyses can be relevant for identifying populations that may be exposed to local environmental stressors, such as local NO<sub>2</sub> and SO<sub>2</sub> emitted from affected sources in this final rule, traffic, or noise. The baseline analysis indicates that on average the populations living within 10 kilometers of coal plants potentially impacted by the amended fPM standards have a higher percentage of people living below two times the poverty level than the national average. In addition, on average the percentage of the American Indian population living within 10 kilometers of lignite plants potentially impacted by the amended Hg standard is higher than the national average. Assessing these results, we conclude that there may be potential EJ concerns associated with directly emitted pollutants that are affected by the regulatory action ( e.g., SO<sub>2</sub>) for various population groups in the baseline (question 1). However, as proximity to affected facilities does not capture variation in baseline exposure across communities, nor does it indicate that any exposures or impacts will occur, these results should not be interpreted as a direct measure of exposure or impact.

As HAP exposure results generated as part of the 2020 Residual Risk Review were below both the presumptive acceptable cancer risk threshold and noncancer health benchmarks and this regulation should further reduce exposure to HAP, there are no “disproportionate and adverse effects” of potential EJ concern. Therefore, we did not perform a quantitative EJ assessment of HAP risk. However, the potential reduction in non-Hg HAP metal emissions would likely reduce exposures to people living nearby coal plants potentially impacted by the amended fPM standards.

This rule is also expected to reduce emissions of direct PM<sub>2.5</sub>, NO<sub>x</sub>, and SO<sub>2</sub> nationally throughout the year. Because NO<sub>x</sub> and SO<sub>2</sub> are also precursors to secondary formation of ambient PM<sub>2.5</sub> and because NO<sub>x</sub> is a precursor to ozone formation, reducing these emissions

would impact human exposure. Quantitative ozone and PM<sub>2.5</sub> exposure analyses can provide insight into all three EJ questions, so they are performed to evaluate potential disproportionate impacts of this rulemaking. Even though both the proximity and exposure analyses can potentially improve understanding of baseline EJ concerns (question 1), the two should not be directly compared. This is because the demographic proximity analysis does not include air quality information and is based on current, not future, population information.

The baseline analysis of ozone and PM<sub>2.5</sub> concentration burden responds to question 1 from the EPA’s EJ technical guidance more directly than the proximity analyses, as it evaluates a form of the environmental stressor targeted by the regulatory action. Baseline PM<sub>2.5</sub> and ozone exposure analyses show that certain populations, such as residents of redlined census tracts, those linguistically isolated, Hispanic, Asian, those without a high school diploma, and the unemployed may experience higher ozone and PM<sub>2.5</sub> exposures as compared to the national average. American Indian, residents of Tribal Lands, populations with higher life expectancy or with life expectancy data unavailable, children, and insured populations may also experience disproportionately higher ozone concentrations than the reference group. Hispanic, Black, below the poverty line, and uninsured populations may also experience disproportionately higher PM<sub>2.5</sub> concentrations than the reference group. Therefore, also in response to question 1, there likely are potential EJ concerns associated with ozone and PM<sub>2.5</sub> exposures affected by the regulatory action for population groups of concern in the baseline. However, these baseline exposure results have not been fully explored and additional analyses are likely needed to understand potential implications. Due to the small magnitude of the exposure changes across population demographics associated with the rulemaking relative to the magnitude of the baseline disparities, we infer that post-policy EJ ozone and PM<sub>2.5</sub> concentration burdens are likely to remain after implementation of the regulatory action or alternative under consideration (question 2).

Question 3 asks whether potential EJ concerns will be created or mitigated as compared to the baseline. Due to the very small magnitude of differences across demographic population post-policy ozone and PM<sub>2.5</sub> exposure impacts, we do not find evidence that

potential EJ concerns related to ozone and PM<sub>2.5</sub> concentrations will be created or mitigated as compared to the baseline.<sup>103</sup>

#### X. 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 14094: Modernizing Regulatory Review

This action is a “significant regulatory action,” as defined under section 3(f)(1) of Executive Order 12866, as amended by Executive Order 14094. Accordingly, the EPA submitted this action to the Office of Management and Budget (OMB) for Executive Order 12866 review. Documentation of any changes made in response to the Executive Order 12866 review is available in the docket. The EPA prepared an analysis of the potential costs and benefits associated with this action. This analysis, Regulatory Impact Analysis for the Final National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units Review of the Residual Risk and Technology Review (Ref. EPA–452/R–24–005), is briefly summarized in section IX. of this preamble and here. This analysis is also available in the docket.

Table 11 of this document presents the estimated PV and EAV of the monetizable projected health benefits, climate benefits, compliance costs, and net benefits of the final rule in 2019 dollars discounted to 2023. The estimated monetized net benefits are the projected monetized benefits minus the projected monetized costs of the final rule.

Under Executive Order 12866, the EPA is directed to consider all of the costs and benefits of its actions, not just those that stem from the regulated pollutant. Accordingly, the projected monetized benefits of the final rule include health benefits associated with projected reductions in PM<sub>2.5</sub> and ozone concentration. The projected monetized benefits also include climate benefits due to reductions in CO<sub>2</sub> emissions. The projected health benefits are associated with several point estimates and are presented at real discount rates of 2, 3, and 7 percent. The projected climate

<sup>103</sup> Please note that results for ozone and PM<sub>2.5</sub> exposures should not be extrapolated to other air pollutants that were not included in the assessment, including HAP. Detailed EJ analytical results can be found in section 6 of the RIA.

benefits in this table are based on estimates of the SC-CO<sub>2</sub> at a 2 percent near-term Ramsey discount rate and are discounted using a 2 percent discount rate to obtain the PV and EAV estimates in the table. The power industry's

compliance costs are represented in this analysis as the change in electric power generation costs between the baseline and policy scenarios. In simple terms, these costs are an estimate of the increased power industry expenditures

required to implement the finalized requirements and represent the EPA's best estimate of the social cost of the final rulemaking.

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**Table 11. Projected Monetized Benefits, Compliance Costs, and Net Benefits of the Final Rule, 2028 through 2037 (Millions 2019\$, Discounted to 2023)<sup>a</sup>**

	Present Value (PV)		
	2% Discount Rate	3% Discount Rate	7% Discount Rate
Health Benefits <sup>c</sup>	300	260	180
Climate Benefits <sup>d</sup>	130	130	130
Compliance Costs	860	790	560
Net Benefits	-440	-400	-260
	Equal Annualized Value (EAV) <sup>b</sup>		
	2% Discount Rate	3% Discount Rate	7% Discount Rate
Health Benefits <sup>c</sup>	33	31	25
Climate Benefits <sup>d</sup>	14	14	14
Compliance Costs	96	92	80
Net Benefits	-49	-47	-41
Non-Monetized Benefits <sup>e</sup>	Benefits from reductions of about 900 to 1000 pounds of Hg annually		
	Benefits from reductions of at least 4 to 7 tons of non-Hg HAP metals annually		
	Benefits from improved water quality and availability		
	Benefits from the increased transparency, compliance assurance, and accelerated identification of anomalous emission anticipated from requiring PM CEMS		

<sup>a</sup> Values have been rounded to two significant figures. Rows may not appear to sum correctly due to rounding.

<sup>b</sup> The EAV of costs and benefits are calculated over the 10-year period from 2028 to 2037.

<sup>c</sup> The projected monetized air quality related benefits include those related to public health associated with reductions in PM<sub>2.5</sub> and ozone concentrations. The projected health benefits are associated with several point estimates and are presented at real discount rates of 2, 3, and 7 percent.

<sup>d</sup> Monetized climate benefits are based on reductions in CO<sub>2</sub> emissions and are calculated using three different estimates of the SC-CO<sub>2</sub> (under 1.5 percent, 2.0 percent, and 2.5 percent near-term Ramsey discount rates). For the presentational purposes of this table, we show the climate benefits associated with the SC-CO<sub>2</sub> at the 2 percent near-term Ramsey discount rate. Please see section 4 of the RIA for the full range of monetized climate benefit estimates.

<sup>e</sup> The list of non-monetized benefits does not include all potential non-monetized benefits. See table 4-8 of the RIA for a more complete list.

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As shown in table 11 of this document, this rule is projected to reduce PM<sub>2.5</sub> and ozone concentrations,

producing a projected PV of monetized health benefits of about \$300 million, with an EAV of about \$33 million

discounted at 2 percent. The rule is also projected to reduce greenhouse gas emissions in the form of CO<sub>2</sub>, producing

a projected PV of monetized climate benefits of about \$130 million, with an EAV of about \$14 million using the SC-CO<sub>2</sub> discounted at 2 percent. Thus, this final rule would generate a PV of monetized benefits of \$420 million, with an EAV of \$47 million discounted at a 2 percent rate. The PV of the projected compliance costs are \$860 million, with an EAV of about \$96 million discounted at 2 percent. Combining the projected benefits with the projected compliance costs yields a net benefit PV estimate of \$440 million and EAV of \$49 million.

At a 3 percent discount rate, this rule is expected to generate projected PV of monetized health benefits of \$260 million, with an EAV of about \$31 million. Climate benefits remain discounted at 2 percent in this net benefits analysis. Thus, this final rule would generate a PV of monetized benefits of \$390 million, with an EAV of \$45 million discounted at a 3 percent rate. The PV of the projected compliance costs are \$790 million, with an EAV of \$92 million discounted at 3 percent. Combining the projected benefits with the projected compliance costs yields a net benefit PV estimate of \$400 million and an EAV of \$47 million.

At a 7 percent discount rate, this rule is expected to generate projected PV of monetized health benefits of \$160 million, with an EAV of about \$23 million. Climate benefits remain discounted at 2 percent in this net benefits analysis. Thus, this final rule would generate a PV of monetized benefits of \$300 million, with an EAV of \$39 million discounted at a 3 percent rate. The PV of the projected compliance costs are \$560 million, with an EAV of \$80 million discounted at 7 percent. Combining the projected benefits with the projected compliance costs yields a net benefit PV estimate of \$260 million and an EAV of \$41 million.

The potential benefits from reducing Hg and non-Hg HAP metals and potential improvements in water quality and availability were not monetized and are therefore not directly reflected in the monetized benefit-cost estimates associated with this final rule. Potential benefits from the increased transparency and accelerated identification of anomalous emission anticipated from requiring CEMS were also not monetized in this analysis and are therefore also not directly reflected in the monetized benefit-cost comparisons. We nonetheless consider these impacts in our evaluation of the net benefits of the rule and find, if we were able to quantify and monetize these beneficial

impacts, the final rule would have greater net benefits than shown in table 11 of this preamble.

#### B. Paperwork Reduction Act (PRA)

The information collection activities in this rule have been submitted for approval to the OMB under the PRA. The ICR document that the EPA prepared has been assigned EPA ICR number 2137-12. You can find a copy of the ICR in the docket for this rule, and it is briefly summarized here. The information collection requirements are not enforceable until OMB approves them. OMB has previously approved the information collection activities contained in the existing regulations and has assigned OMB control number 2060-0567.

The information collection activities in this rule include continuous emission monitoring, performance testing, notifications and periodic reports, recording information, monitoring and the maintenance of records. The information generated by these activities will be used by the EPA to ensure that affected facilities comply with the emission limits and other requirements. Records and reports are necessary to enable delegated authorities to identify affected facilities that may not be in compliance with the requirements. Based on reported information, delegated authorities will decide which units and what records or processes should be inspected. The recordkeeping requirements require only the specific information needed to determine compliance. These recordkeeping and reporting requirements are specifically authorized by CAA section 114 (42 U.S.C. 7414). The burden and cost estimates below represent the total burden and cost for the information collection requirements of the NESHAP for Coal- and Oil-Fired EGUs, not just the burden associated with the amendments in this final rule. The incremental cost associated with these amendments is \$2.4 million per year.

Respondents/affected entities: The respondents are owners or operators of coal- and oil-fired EGUs. The North American Industry Classification System (NAICS) codes for the coal- and oil-fired EGU industry are 221112, 221122, and 921150.

Respondent's obligation to respond: Mandatory per 42 U.S.C. 7414 et seq.

Estimated number of respondents: 192 per year.<sup>104</sup>

Frequency of response: The frequency of responses varies depending on the burden item. Responses include daily

<sup>104</sup> Each facility is a respondent and some facilities have multiple EGUs.

calibrations, monthly recordkeeping activities, semiannual compliance reports, and annual reports.

Total estimated burden: 447,000 hours (per year). Burden is defined as 5 CFR part 1320.3(b).

Total estimated cost: \$106,600,000 (per year), includes \$53,100,000 in annual labor costs and \$53,400,000 annualized capital and operation and maintenance costs.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for the EPA's regulations in 40 CFR are listed in 40 CFR part 9. When OMB approves this ICR, the Agency will announce that approval in the Federal Register and publish a technical amendment to 40 CFR part 9 to display the OMB control number for the approved information collection activities contained in this final rule.

#### C. Regulatory Flexibility Act (RFA)

The EPA certifies that this action will not have a significant economic impact on a substantial number of small entities under the RFA. In the 2028 analysis year, the EPA identified 24 potentially affected small entities operating 45 units at 26 facilities, and of these 24, only one small entity may experience compliance cost increases greater than one percent of revenue under the final rule. Details of this analysis are presented in section 5 of the RIA, which is in the public docket.

#### D. Unfunded Mandates Reform Act (UMRA)

This action does not contain an unfunded mandate of \$100 million or more (adjusted for inflation) as described in UMRA, 2 U.S.C. 1531-1538, and does not significantly or uniquely affect small governments. The costs involved in this action are estimated not to exceed \$100 million or more (adjusted for inflation) in any one year.

#### 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. The Executive order defines tribal implications as “actions that have substantial direct effects on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes.” The amendments in this action would not have a substantial direct effect on one or more tribes, change the relationship between the Federal Government and tribes, or affect the distribution of power and responsibilities between the Federal Government and Indian tribes. Thus, Executive Order 13175 does not apply to this action.

Although this action does not have tribal implications as specified in Executive Order 13175, the EPA consulted with tribal officials during the development of this action. On September 1, 2022, the EPA sent a letter to all federally recognized Indian tribes initiating consultation to obtain input on this action. The EPA did not receive any requests for consultation from Indian tribes. The EPA also participated in the September 2022 National Tribal Air Association EPA Air Policy Update Call to solicit input on this action.

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

Executive Order 13045 directs Federal agencies to include an evaluation of the health and safety effects of the planned regulation on children in federal health and safety standards and explain why the regulation is preferable to potentially effective and reasonably feasible alternatives. This action is subject to Executive Order 13045 because it is a significant regulatory action under section 3(f)(1) of Executive Order 12866. Accordingly, we have evaluated the potential for environmental health or safety effects from exposure to HAP, ozone, and PM<sub>2.5</sub> on children. The EPA believes that, even though the 2020 residual risk assessment showed all modeled exposures to HAP to be below thresholds for public health concern, the rule should reduce HAP exposure by reducing emissions of Hg and non-Hg HAP with the potential to reduce HAP exposure to vulnerable populations, including children. The action described in this rule is also expected to lower ozone and PM<sub>2.5</sub> in many areas, including those areas that struggle to attain or maintain the NAAQS, and thus mitigate some pre-existing health risks across all populations evaluated, including children. The results of this evaluation are contained in the RIA and are available in the docket for this action.

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

This action is not a “significant energy action” because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. For 2028, the compliance year for the standards, the EPA does not project a significant change in retail electricity prices on average across the contiguous U.S., coal-fired electricity generation, natural gas-fired electricity generation, or utility power sector delivered natural gas prices. Details of the projected energy effects are presented in section 3 of the RIA, which is in the public docket.

#### I. National Technology Transfer and Advancement Act (NTTAA) and 1 CFR Part 51

The following standards appear in the amendatory text of this document and were previously approved for the locations in which they appear: ANSI/ASME PTC 19.10–1981, ASTM D6348–03(R2010), and ASTM D6784–16.

#### J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations and Executive Order 14096: Revitalizing Our Nation’s Commitment to Environmental Justice for All

The EPA believes that the human health or environmental conditions that exist prior to this action result in or have the potential to result in disproportionate and adverse human health or environmental effects on communities with environmental justice concerns. For this rule, we employ the proximity demographic analysis and the PM<sub>2.5</sub> and ozone exposure analyses to evaluate disproportionate and adverse human health and environmental effects on communities with EJ concerns that exist prior to the action. The proximity demographic analysis indicates that on average the population living within 10 kilometers of coal plants potentially impacted by the fPM standards have a higher percentage of people living below two times the poverty level than the national average. In addition, on average the percentage of the American Indian population living within 10 kilometers of lignite-fired plants potentially impacted by the Hg standard is higher than the national average. Baseline PM<sub>2.5</sub> and ozone and exposure analyses show that certain populations, such as residents of redlined census tracts, those linguistically isolated, Hispanic, Asian, those without a high

school diploma, and the unemployed may experience disproportionately higher ozone and PM<sub>2.5</sub> exposures as compared to the national average. American Indian, residents of Tribal Lands, populations with higher life expectancy or with life expectancy data unavailable, children, and insured populations may also experience disproportionately higher ozone concentrations than the reference group. Hispanics, Blacks, those below the poverty line, and uninsured populations may also experience disproportionately higher PM<sub>2.5</sub> concentrations than the reference group.

The EPA believes that this action is not likely to change existing disproportionate and adverse effects on communities with environmental justice concerns. Only the exposure analyses, which are based on future air quality modeling, can inform whether there will be potential EJ concerns after implementation of the final rule, and whether potential EJ concerns will be created or mitigated. We infer that baseline disparities in ozone and PM<sub>2.5</sub> concentration burdens are likely to remain after implementation of the final regulatory option due to the small magnitude of the exposure changes across population demographics associated with the rulemaking relative to the baseline disparities. We also do not find evidence that potential EJ concerns related to ozone or PM<sub>2.5</sub> exposures will be exacerbated or mitigated in the final regulatory option, compared to the baseline due to the very small differences in the magnitude of post-policy ozone and PM<sub>2.5</sub> exposure impacts across demographic populations. Additionally, the potential reduction in Hg and non-Hg HAP metal emissions would likely reduce exposures to people living nearby coal plants potentially impacted by the amended fPM standards.

The information supporting this Executive Order review is contained in section IX.F. of this preamble and in section 6, Environmental Justice Impacts of the RIA, which is in the public docket (EPA–HQ–OAR–2018–0794).

#### 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 meets the criteria set forth in 5 U.S.C. 804(2).

#### List of Subjects in 40 CFR Part 63

Environmental protection,  
Administrative practice and procedures,  
Air pollution control, Hazardous



substances, Incorporation by reference, Intergovernmental relations, 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.

Subpart A—General Provisions

2. In § 63.14, paragraph (f)(1) is amended by removing the text “tables 4 and 5 to subpart UUUUU” and adding, in its place, the text “table 5 to subpart UUUUU”.

Subpart UUUUU—National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units

3. Section 63.9991 is amended by revising paragraph (a)(2) to read as follows:

§ 63.9991 What emission limitations, work practice standards, and operating limits must I meet?

(a) \* \* \*

(2) Before July 6, 2027, you must meet each operating limit in Table 4 to this subpart that applies to your EGU.

\* \* \* \* \*

4. Amend § 63.10000 by:

- a. Revising paragraph (c)(1)(i) and paragraph (c)(1)(i)(A);
b. Redesignating paragraph (c)(1)(i)(C) as paragraph (c)(1)(i)(D);
c. Adding new paragraph (c)(1)(i)(C);
d. Revising paragraph (c)(1)(iv);
e. Adding new paragraphs (c)(1)(iv)(A) through (C);
f. Revising paragraphs (c)(2)(i) and (ii);
g. Revising paragraph (d)(5)(i); and
h. Revising paragraph (m) introductory text.

The revisions and additions read as follows:

§ 63.10000 What are my general requirements for complying with this subpart?

\* \* \* \* \*

(c) \* \* \*

(1) \* \* \*

(i) For a coal-fired or solid oil-derived fuel-fired EGU or IGCC EGU, you may conduct initial performance testing in accordance with § 63.10005(h), to

determine whether the EGU qualifies as a low emitting EGU (LEE) for one or more applicable emission limits, except as otherwise provided in paragraphs (c)(1)(i)(A) through (C) of this section:

(A) Except as provided in paragraph (c)(1)(i)(D) of this section, you may not pursue the LEE option if your coal-fired, IGCC, or solid oil-derived fuel-fired EGU is equipped with a main stack and a bypass stack or bypass duct configuration that allows the effluent to bypass any pollutant control device.

\* \* \* \* \*

(C) On or after July 6, 2027, you may not pursue the LEE option for filterable PM, total non-Hg HAP metals, or individual non-Hg HAP metals for coal-fired and solid oil-derived fuel-fired EGUs.

\* \* \* \* \*

(iv)(A) Before July 6, 2027, if your coal-fired or solid oil derived fuel-fired EGU does not qualify as a LEE for total non-mercury HAP metals, individual non-mercury HAP metals, or filterable particulate matter (PM), you must demonstrate compliance through an initial performance test and you must monitor continuous performance through either use of a particulate matter continuous parametric monitoring system (PM CPMS), a PM CEMS, or, for an existing EGU, compliance performance testing repeated quarterly.

(B) On and after July 6, 2027, you may not pursue or continue to use the LEE option for your coal-fired or solid oil derived fuel-fired EGU for filterable PM or for non-mercury HAP metals. You must demonstrate compliance through an initial performance test, and you must monitor continuous performance with the applicable filterable PM emissions limit through the use of a PM CEMS or HAP metals CMS.

(C) If your IGCC EGU does not qualify as a LEE for total non-mercury HAP metals, individual non-mercury HAP metals, or filterable PM, you must demonstrate compliance through an initial performance test and you must monitor continuous performance through either use of a PM CPMS, a PM CEMS, or, for an existing EGU, compliance performance testing repeated quarterly.

\* \* \* \* \*

(2) \* \* \*

(i) For an existing liquid oil-fired unit, you may conduct the performance testing in accordance with § 63.10005(h), to determine whether the unit qualifies as a LEE for one or more pollutants. For a qualifying LEE for Hg emissions limits, you must conduct a 30-day performance test using Method

30B at least once every 12 calendar months to demonstrate continued LEE status. For a qualifying LEE of any other applicable emissions limits, you must conduct a performance test at least once every 36 calendar months to demonstrate continued LEE status. On or after July 6, 2027, you may not pursue the LEE option for filterable PM, total non-Hg HAP metals, or individual non-Hg HAP metals.

(ii) Before July 6, 2027, if your liquid oil-fired unit does not qualify as a LEE for total HAP metals (including mercury), individual metals (including mercury), or filterable PM you must demonstrate compliance through an initial performance test and you must monitor continuous performance through either use of a PM CPMS, a PM CEMS, or, for an existing EGU, performance testing conducted quarterly. On and after July 6, 2027, you may not pursue or continue to use the LEE option for your liquid oil-fired EGU for filterable PM or for non-mercury HAP metals. You must demonstrate compliance through an initial performance test, and you must monitor continuous performance with the applicable filterable PM emissions limit through the use of a PM CEMS or HAP metals CMS.

(d) \* \* \*

(5) \* \* \*

(i) Installation of the CMS or sorbent trap monitoring system sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device). See § 63.10010(a) for further details. For PM CPMS installations (which with the exception of IGCC units, are only applicable before July 6, 2027), follow the procedures in § 63.10010(h).

\* \* \* \* \*

(m) Should you choose to rely on paragraph (2) of the definition of “startup” in § 63.10042 for your EGU (only allowed before January 2, 2025), on or before the date your EGU is subject to this subpart, you must install, verify, operate, maintain, and quality assure each monitoring system necessary for demonstrating compliance with the work practice standards for PM or non-mercury HAP metals controls during startup periods and shutdown periods required to comply with § 63.10020(e). On and after January 2, 2025 you will no longer be able to choose paragraph (2) of the “startup” definition in § 63.10042.

\* \* \* \* \*

! 5. Amend § 63.10005 by revising paragraphs (a)(1), (b) introductory text, (c), (d)(2) introductory text, (h) introductory text, and (h)(1) introductory text to read as follows:

§ 63.10005 What are my initial compliance requirements and by what date must I conduct them?

(a) \* \* \*

(1) To demonstrate initial compliance with an applicable emissions limit in Table 1 or 2 to this subpart using stack testing, the initial performance test generally consists of three runs at specified process operating conditions using approved methods. Before July 6, 2027, if you are required to establish operating limits (see paragraph (d) of this section and Table 4 to this subpart), you must collect all applicable parametric data during the performance test period. On and after July 6, 2027, the requirements in Table 4 are not applicable, with the exception of IGCC units. Also, if you choose to comply with an electrical output-based emission limit, you must collect hourly electrical load data during the test period.

(b) Performance testing requirements. If you choose to use performance testing to demonstrate initial compliance with the applicable emissions limits in Tables 1 and 2 to this subpart for your EGUs, you must conduct the tests according to 40 CFR 63.10007 and Table 5 to this subpart. Notwithstanding these requirements, when Table 5 specifies the use of isokinetic EPA test Method 5, 5I, 5D, 26A, or 29 for a stack test, if concurrent measurement of the stack gas flow rate or moisture content is needed to convert the pollutant concentrations to units of the standard, separate determination of these parameters using EPA test Method 2 or EPA test Method 4 is not necessary. Instead, the stack gas flow rate and moisture content can be determined from data that are collected during the EPA test Method 5, 5I, 5D, 6, 26A, or 29 test (e.g., pitot tube (delta P) readings, moisture collected in the impingers, etc.). For the purposes of the initial compliance demonstration, you may use test data and results from a performance test conducted prior to the date on which compliance is required as specified in 40 CFR 63.9984, provided that the following conditions are fully met:

(c) Operating limits. In accordance with § 63.10010 and Table 4 to this subpart, you may be required to establish operating limits using PM CPMS and using site-specific monitoring for certain liquid oil-fired units as part of your initial compliance

demonstration. With the exception of IGCC units, on and after July 6, 2027, you may not demonstrate compliance with applicable filterable PM emissions limits with the use of PM CPMS or quarterly stack testing, you may only use PM CEMS.

\* \* \* \* \*

(d) \* \* \*

(2) For affected coal-fired or solid oil-derived fuel-fired EGUs that demonstrate compliance with the applicable emission limits for total non-mercury HAP metals, individual non-mercury HAP metals, total HAP metals, individual HAP metals, or filterable PM listed in Table 1 or 2 to this subpart using initial performance testing and continuous monitoring with PM CPMS (with the exception of IGCC units, the use of PM CPMS is only allowed before July 6, 2027):

\* \* \* \* \*

(h) Low emitting EGUs. The provisions of this paragraph (h) apply to pollutants with emissions limits from new EGUs except Hg and to all pollutants with emissions limits from existing EGUs. With the exception of IGCC units, on or after July 6, 2027 you may not pursue the LEE option for filterable PM. You may pursue this compliance option unless prohibited pursuant to § 63.10000(c)(1)(i).

(1) An EGU may qualify for low emitting EGU (LEE) status for Hg, HCl, HF, filterable PM, total non-Hg HAP metals, or individual non-Hg HAP metals (or total HAP metals or individual HAP metals, for liquid oil-fired EGUs) if you collect performance test data that meet the requirements of this paragraph (h) with the exception that on or after July 6, 2027, you may not pursue the LEE option for filterable PM, total non-Hg HAP metals, or individual non-Hg HAP metals for any existing, new or reconstructed EGUs (this does not apply to IGCC units), and if those data demonstrate:

\* \* \* \* \*

! 6. Amend § 63.10006 by revising paragraph (a) to read as follows:

§ 63.10006 When must I conduct subsequent performance tests or tune-ups?

(a) For liquid oil-fired, solid oil-derived fuel-fired and coal-fired EGUs and IGCC units using PM CPMS before July 6, 2027 to monitor continuous performance with an applicable emission limit as provided for under § 63.10000(c), you must conduct all applicable performance tests according to Table 5 to this subpart and § 63.10007 at least every year. On or after July 6, 2027 you may not use PM CPMS to demonstrate compliance for liquid oil-

fired, solid oil-derived fuel-fired and coal-fired EGUs. This prohibition against the use of PM CPMS does not apply to IGCC units.

\* \* \* \* \*

! 7. Amend § 63.10007 by revising paragraphs (a)(3) and (c) to read as follows:

§ 63.10007 What methods and other procedures must I use for the performance tests?

(a) \* \* \*

(3) For establishing operating limits with particulate matter continuous parametric monitoring system (PM CPMS) to demonstrate compliance with a PM or non-Hg metals emissions limit (the use of PM CPMS is only allowed before July 6, 2027 with the exception of IGCC units), operate the unit at maximum normal operating load conditions during the performance test period. Maximum normal operating load will be generally between 90 and 110 percent of design capacity but should be representative of site specific normal operations during each test run.

\* \* \* \* \*

(c) If you choose the filterable PM method to comply with the PM emission limit and demonstrate continuous performance using a PM CPMS as provided for in § 63.10000(c), you must also establish an operating limit according to § 63.10011(b), § 63.10023, and Tables 4 and 6 to this subpart. Should you desire to have operating limits that correspond to loads other than maximum normal operating load, you must conduct testing at those other loads to determine the additional operating limits. On and after July 6, 2027, you must demonstrate continuous compliance with the applicable filterable PM emission standard through the use of a PM CEMS (with the exception that IGCC units are not required to use PM CEMS and may continue to use PM CPMS). Alternatively, you may demonstrate continuous compliance with the non-Hg metals emission standard if you request and receive approval for the use of a HAP metals CMS under § 63.7(f).

\* \* \* \* \*

! 8. Amend § 63.10010 by revising paragraphs (a) introductory text, (h) introductory text, (i) introductory text, (j), and (l) introductory text to read as follows:

§ 63.10010 What are my monitoring, installation, operation, and maintenance requirements?

(a) Flue gases from the affected units under this subpart exhaust to the atmosphere through a variety of

different configurations, including but not limited to individual stacks, a common stack configuration or a main stack plus a bypass stack. For the CEMS, PM CPMS (which on or after July 6, 2027 you may not use PM CPMS for filterable PM compliance demonstrations unless it is for an IGCC unit), and sorbent trap monitoring systems used to provide data under this subpart, the continuous monitoring system installation requirements for these exhaust configurations are as follows:

\* \* \* \* \*

(h) If you use a PM CPMS to demonstrate continuous compliance with an operating limit (only applicable before July 6, 2027 unless it is for an IGCC unit), you must install, calibrate, maintain, and operate the PM CPMS and record the output of the system as specified in paragraphs (h)(1) through (5) of this section.

\* \* \* \* \*

(i) If you choose to comply with the PM filterable emissions limit in lieu of metal HAP limits (which on or after July 6, 2027 you may not use non-mercury metal HAP limits for compliance demonstrations for existing EGUs unless you request and receive approval for the use of a HAP metals CMS under § 63.7(f)), you may choose to install, certify, operate, and maintain a PM CEMS and record and report the output of the PM CEMS as specified in paragraphs (i)(1) through (8) of this section. With the exception of IGCC units, on or after July 6, 2027 owners/operators of existing EGUs must comply with filterable PM emissions limits in Table 2 of this subpart and demonstrate continuous compliance using a PM CEMS unless you request and receive approval for the use of a HAP metals CMS under § 63.7(f). Compliance with the applicable PM emissions limit in Table 1 or 2 to this subpart is determined on a 30-boiler operating day rolling average basis.

\* \* \* \* \*

(j) You may choose to comply with the metal HAP emissions limits using CMS approved in accordance with § 63.7(f) as an alternative to the performance test method specified in this rule. If approved to use a HAP metals CMS, the compliance limit will be expressed as a 30-boiler operating day rolling average of the numerical emissions limit value applicable for your unit in tables 1 or 2. If approved, you may choose to install, certify, operate, and maintain a HAP metals CMS and record the output of the HAP metals CMS as specified in paragraphs (j)(1) through (5) of this section.

(1)(i) Install, calibrate, operate, and maintain your HAP metals CMS according to your CMS quality control program, as described in § 63.8(d)(2). The reportable measurement output from the HAP metals CMS must be expressed in units of the applicable emissions limit ( e.g., lb/MMBtu, lb/MWh) and in the form of a 30-boiler operating day rolling average.

(ii) Operate and maintain your HAP metals CMS according to the procedures and criteria in your site specific performance evaluation and quality control program plan required in § 63.8(d).

(2) Collect HAP metals CMS hourly average output data for all boiler operating hours except as indicated in section (j)(4) of this section.

(3) Calculate the arithmetic 30-boiler operating day rolling average of all of the hourly average HAP metals CMS output data collected during all nonexempt boiler operating hours data.

(4) You must collect data using the HAP metals CMS at all times the process unit is operating and at the intervals specified in paragraph (a) of this section, except for required monitoring system quality assurance or quality control activities, and any scheduled maintenance as defined in your site-specific monitoring plan.

(i) You must use all the data collected during all boiler operating hours in assessing the compliance with your emission limit except:

(A) Any data collected during periods of monitoring system malfunctions and repairs associated with monitoring system malfunctions. You must report any monitoring system malfunctions as deviations in your compliance reports under 40 CFR 63.10031(c) or (g) (as applicable);

(B) Any data collected during periods when the monitoring system is out of control as specified in your site-specific monitoring plan, repairs associated with periods when the monitoring system is out of control, or required monitoring system quality assurance or quality control activities conducted during out-of-control periods. You must report any out of control periods as deviations in your compliance reports under 40 CFR 63.10031(c) or (g) (as applicable);

(C) Any data recorded during required monitoring system quality assurance or quality control activities that temporarily interrupt the measurement of emissions ( e.g., calibrations, certain audits, routine probe maintenance); and

(D) Any data recorded during periods of startup or shutdown.

(ii) You must record and report the results of HAP metals CMS system performance audits, in accordance with

40 CFR 63.10031(k). You must also record and make available upon request the dates and duration of periods when the HAP metals CMS is out of control to completion of the corrective actions necessary to return the HAP metals CMS to operation consistent with your site-specific performance evaluation and quality control program plan.

\* \* \* \* \*

(l) Should you choose to rely on paragraph (2) of the definition of "startup" in § 63.10042 for your EGU (only allowed before January 2, 2025), you must install, verify, operate, maintain, and quality assure each monitoring system necessary for demonstrating compliance with the PM or non-mercury metals work practice standards required to comply with § 63.10020(e). On and after January 2, 2025 you will no longer be able to choose paragraph (2) of the "startup" definition in § 63.10042 for your EGU.

\* \* \* \* \*

! 9. Amend § 63.10011 by revising paragraphs (b), (g)(3), and (4) introductory text to read as follows:

§ 63.10011 How do I demonstrate initial compliance with the emissions limits and work practice standards?

\* \* \* \* \*

(b) If you are subject to an operating limit in Table 4 to this subpart, you demonstrate initial compliance with HAP metals or filterable PM emission limit(s) through performance stack tests and you elect to use a PM CPMS to demonstrate continuous performance (with the exception of existing IGCC units, on or after July 6, 2027 you may not use PM CPMS for compliance demonstrations with the applicable filterable PM limits and the Table 4 p.m. CPMS operating limits do not apply), or if, for an IGCC unit, and you use quarterly stack testing for HCl and HF plus site-specific parameter monitoring to demonstrate continuous performance, you must also establish a site-specific operating limit, in accordance with § 63.10007 and Table 6 to this subpart. You may use only the parametric data recorded during successful performance tests (i.e., tests that demonstrate compliance with the applicable emissions limits) to establish an operating limit. On or after July 6, 2027 you may not use PM CPMS for compliance demonstrations with the applicable filterable PM limits and the Table 6 procedures for establishing PM CPMS operating limits do not apply unless it is an IGCC unit.

\* \* \* \* \*

(g) \* \* \*

(3) You must report the emissions data recorded during startup and shutdown. If you are relying on paragraph (2) of the definition of startup in 40 CFR 63.10042 (only allowed before January 2, 2025), then for startup and shutdown incidents that occur on or prior to December 31, 2023, you must also report the applicable supplementary information in 40 CFR 63.10031(c)(5) in the semiannual compliance report. For startup and shutdown incidents that occur on or after January 1, 2024, you must provide the applicable information in 40 CFR 63.10031(c)(5)(ii) and 40 CFR 63.10020(e) quarterly, in PDF files, in accordance with 40 CFR 63.10031(i).

(4) If you choose to use paragraph (2) of the definition of "startup" in § 63.10042 (only allowed before January 2, 2025), and you find that you are unable to safely engage and operate your particulate matter (PM) control(s) within 1 hour of first firing of coal, residual oil, or solid oil-derived fuel, you may choose to rely on paragraph (1) of definition of "startup" in § 63.10042 or you may submit a request to use an alternative non-opacity emissions standard, as described below.

\* \* \* \* \*

! 10. Section 63.10020 is amended by revising paragraphs (e) introductory text

and (e)(3)(i) introductory text to read as follows:

§ 63.10020 How do I monitor and collect data to demonstrate continuous compliance?

\* \* \* \* \*

(e) Additional requirements during startup periods or shutdown periods if you choose to rely on paragraph (2) of the definition of "startup" in § 63.10042 for your EGU (only allowed before January 2, 2025).

\* \* \* \* \*

(3) \* \* \*

(i) Except for an EGU that uses PM CEMS or PM CPMS to demonstrate compliance with the PM emissions limit, or that has LEE status for filterable PM or total non-Hg HAP metals for non-liquid oil-fired EGUs (or HAP metals emissions for liquid oil-fired EGUs), or individual non-mercury metals CMS (except that unless it is for an IGCC unit, on or after July 6, 2027 you may not use PM CPMS for compliance demonstrations with the applicable filterable PM emissions limits, and you may not pursue or continue to use the LEE option for filterable PM, total non-Hg HAP metals, or individual non-Hg HAP metals), you must:

\* \* \* \* \*

! 11. Section 63.10021 is amended by revising paragraphs (c) introductory text and (i) to read as follows:

§ 63.10021 How do I demonstrate continuous compliance with the emission limitations, operating limits, and work practice standards?

\* \* \* \* \*

(c) If you use PM CPMS data (only allowed before July 6, 2027 unless it is for an IGCC unit) to measure compliance with an operating limit in Table 4 to this subpart, you must record the PM CPMS output data for all periods when the process is operating and the PM CPMS is not out-of-control. You must demonstrate continuous compliance by using all quality-assured hourly average data collected by the PM CPMS for all operating hours to calculate the arithmetic average operating parameter in units of the operating limit ( e.g., milliamps, PM concentration, raw data signal) on a 30 operating day rolling average basis, updated at the end of each new boiler operating day. Use Equation 9 to determine the 30 boiler operating day average. On or after July 6, 2027 you may not use PM CPMS for compliance demonstrations unless it is for an IGCC unit.

$$30 \text{ boiler operating day average} = \frac{\sum_{i=1}^n Hpv_i}{n} \text{ (Eq. 9)}$$

Where:

Hpv<sub>i</sub> is the hourly parameter value for hour i and n is the number of valid hourly parameter values collected over 30 boiler operating days.

\* \* \* \* \*

(i) Before January 2, 2025, if you are relying on paragraph 2 of the definition of startup in 40 CFR 63.10042, you must provide reports concerning activities and periods of startup and shutdown that occur on or prior to January 1, 2024, in accordance with 40 CFR 63.10031(c)(5), in your semiannual compliance report. For startup and shutdown incidents that occur on and after January 1, 2024, you must provide the applicable information referenced in 40 CFR 63.10031(c)(5)(ii) and 40 CFR 63.10020(e) quarterly, in PDF files, in accordance with 40 CFR 63.10031(i). On or after January 2, 2025 you may not use paragraph 2 of the definition of startup in 40 CFR 63.10042.

! 12. Section 63.10022 is amended by revising paragraphs (a)(2) and (3) to read as follows:

§ 63.10022 How do I demonstrate continuous compliance under the emissions averaging provision?

(a) \* \* \*

(2) For each existing unit participating in the emissions averaging option that is equipped with PM CPMS, maintain the average parameter value at or below the operating limit established during the most recent performance test. On or after July 6, 2027 you may not use PM CPMS for filterable PM compliance demonstrations unless it is for an IGCC unit;

(3) For each existing unit participating in the emissions averaging option venting to a common stack configuration containing affected units from other subcategories, maintain the appropriate operating limit for each unit as specified in Table 4 to this subpart that applies. Since on or after July 6, 2027 you may not use PM CPMS, unless

it is for an IGCC unit, for compliance demonstrations with the applicable filterable PM limits, the Table 4 p.m. CPMS operating limits do not apply.

\* \* \* \* \*

! 13. Section 63.10023 is amended by adding introductory text to the section to read as follows:

§ 63.10023 How do I establish my PM CPMS operating limit and determine compliance with it?

The provisions of this section § 63.10023 are only applicable before July 6, 2027 unless it is for an IGCC unit. On or after July 6, 2027 you may not use PM CPMS, unless it is an IGCC unit, for demonstrating compliance with the filterable PM emissions limits of this subpart.

\* \* \* \* \*

! 14. Section 63.10030 is amended by revising paragraphs (e)(3), (8) introductory text, and (8)(i) introductory text to read as follows:

§ 63.10030 What notifications must I submit and when?

\* \* \* \* \*

(e) \* \* \*

(3) Identification of whether you plan to demonstrate compliance with each applicable emission limit through performance testing; fuel moisture analyses; performance testing with operating limits ( e.g., use of PM CPMS— which on or after July 6, 2027— you may not use for filterable PM compliance demonstrations, unless it is for an IGCC unit); CEMS; or a sorbent trap monitoring system.

\* \* \* \* \*

(8) Identification of whether you plan to rely on paragraph (1) or (2) of the definition of “startup” in § 63.10042. On or after January 2, 2025 you may not use paragraph (2) of the definition of startup in § 63.10042.

(i) Before January 2, 2025 should you choose to rely on paragraph (2) of the definition of “startup” in § 63.10042 for your EGU, you shall include a report that identifies:

\* \* \* \* \*

! 15. Section 63.10031 is amended by revising paragraphs (a)(4), (c)(5) introductory text, (f)(2), (i), and (k) to read as follows:

§ 63.10031 What reports must I submit and when?

(a) \* \* \*

(4) Before July 6, 2027, if you elect to demonstrate continuous compliance using a PM CPMS, you must meet the electronic reporting requirements of appendix D to this subpart. Except for IGCC units, on or after July 6, 2027 you may not use PM CPMS for compliance demonstrations. Electronic reporting of the hourly PM CPMS output shall begin with the later of the first operating hour on or after January 1, 2024; or the first operating hour after completion of the initial performance stack test that establishes the operating limit for the PM CPMS.

(c) \* \* \*

(5) Should you choose to rely on paragraph (2) of the definition of “startup” in § 63.10042 for your EGU (only allowed before January 2, 2025), for each instance of startup or shutdown you shall:

\* \* \* \* \*

(f) \* \* \*

(2) If, for a particular EGU or a group of EGUs serving a common stack, you have elected to demonstrate compliance using a PM CEMS, an approved HAP metals CMS, or a PM CPMS (on or after July 6, 2027 you may not use PM CPMS for compliance demonstrations, unless it is for an IGCC unit), you must submit

quarterly PDF reports in accordance with paragraph (f)(6) of this section, which include all of the 30-boiler operating day rolling average emission rates derived from the CEMS data or the 30-boiler operating day rolling average responses derived from the PM CPMS data (as applicable). The quarterly reports are due within 60 days after the reporting periods ending on March 31st, June 30th, September 30th, and December 31st. Submission of these quarterly reports in PDF files shall end with the report that covers the fourth calendar quarter of 2023. Beginning with the first calendar quarter of 2024, the compliance averages shall no longer be reported separately, but shall be incorporated into the quarterly compliance reports described in paragraph (g) of this section. In addition to the compliance averages for PM CEMS, PM CPMS, and/or HAP metals CMS, the quarterly compliance reports described in paragraph (g) of this section must also include the 30- (or, if applicable 90-) boiler operating day rolling average emission rates for Hg, HCl, HF, and/or SO<sub>2</sub>, if you have elected to (or are required to) continuously monitor these pollutants. Further, if your EGU or common stack is in an averaging plan, your quarterly compliance reports must identify all of the EGUs or common stacks in the plan and must include all of the 30- (or 90-) group boiler operating day rolling weighted average emission rates (WAERs) for the averaging group.

\* \* \* \* \*

(i) If you have elected to use paragraph (2) of the definition of “startup” in 40 CFR 63.10042 (only allowed before January 2, 2025), then, for startup and shutdown incidents that occur on or prior to December 31, 2023, you must include the information in 40 CFR 63.10031(c)(5) in the semiannual compliance report, in a PDF file. If you have elected to use paragraph (2) of the definition of “startup” in 40 CFR 63.10042, then, for startup and shutdown event(s) that occur on or after January 1, 2024, you must use the ECMPS Client Tool to submit the information in 40 CFR 63.10031(c)(5) and 40 CFR 63.10020(e) along with each quarterly compliance report, in a PDF file, starting with a report for the first calendar quarter of 2024. The applicable data elements in paragraphs (f)(6)(i) through (xii) of this section must be entered into ECMPS with each startup and shutdown report.

\* \* \* \* \*

(k) If you elect to demonstrate compliance using a PM CPMS (on or after July 6, 2027 you may not

demonstrate compliance with filterable PM emissions limits using a PM CPMS, unless it is for an IGCC unit) or an approved HAP metals CMS, you must submit quarterly reports of your QA/QC activities ( e.g., calibration checks, performance audits), in a PDF file, beginning with a report for the first quarter of 2024, if the PM CPMS or HAP metals CMS is used for the compliance demonstration in that quarter. Otherwise, submit a report for the first calendar quarter in which the PM CPMS or HAP metals CMS is used to demonstrate compliance. These reports are due no later than 60 days after the end of each calendar quarter. The applicable data elements in paragraph (f)(6)(i) through (xii) of this section must be entered into ECMPS with the PDF report.

! 16. Section 63.10032 is amended by revising paragraphs (a) introductory text and (f)(2) introductory text to read as follows:

§ 63.10032 What records must I keep?

(a) You must keep records according to paragraphs (a)(1) and (2) of this section. If you are required to (or elect to) continuously monitor Hg and/or HCl and/or HF and/or PM emissions, or if you elect to use a PM CPMS (unless it is for an IGCC unit, you may only use PM CPMS before July 6, 2027), you must keep the records required under appendix A and/or appendix B and/or appendix C and/or appendix D to this subpart. If you elect to conduct periodic (e.g., quarterly or annual) performance stack tests, then, for each test completed on or after January 1, 2024, you must keep records of the applicable data elements under 40 CFR 63.7(g). You must also keep records of all data elements and other information in appendix E to this subpart that apply to your compliance strategy.

\* \* \* \* \*

(f) \* \* \*

(2) Should you choose to rely on paragraph (2) of the definition of “startup” in § 63.10042 for your EGU (on or after January 2, 2025 you may not use paragraph (2) of the definition of startup in § 63.10042), you must keep records of:

\* \* \* \* \*

! 17. Section 63.10042 is amended by revising the definition “Startup” to read as follows:

§ 63.10042 What definitions apply to this subpart?

\* \* \* \* \*

Startup means:

(1) The first-ever firing of fuel in a boiler for the purpose of producing

electricity, or the firing of fuel in a boiler after a shutdown event for any purpose. Startup ends when any of the steam from the boiler is used to generate electricity for sale over the grid or for any other purpose (including on-site use). Any fraction of an hour in which startup occurs constitutes a full hour of startup.

(2) Alternatively, prior to January 2, 2025, the period in which operation of an EGU is initiated for any purpose. Startup begins with either the firing of any fuel in an EGU for the purpose of

producing electricity or useful thermal energy (such as heat or steam) for industrial, commercial, heating, or cooling purposes (other than the first-ever firing of fuel in a boiler following construction of the boiler) or for any other purpose after a shutdown event. Startup ends 4 hours after the EGU generates electricity that is sold or used for any other purpose (including on site use), or 4 hours after the EGU makes useful thermal energy (such as heat or steam) for industrial, commercial, heating, or cooling purposes (16 U.S.C.

796(18)(A) and 18 CFR 292.202(c)), whichever is earlier. Any fraction of an hour in which startup occurs constitutes a full hour of startup.  
\* \* \* \* \*

! 18. Revise table 1 to subpart UUUUU of part 63 to read as follows:

Table 1 to Subpart UUUUU of Part 63—Emission Limits for New or Reconstructed EGUs

As stated in § 63.9991, you must comply with the following applicable emission limits:

If your EGU is in this subcategory . . .	For the following pollutants . . .	You must meet the following emission limits and work practice standards . . .	Using these requirements, as appropriate (e.g., specified sampling volume or test run duration) and limitations with the test methods in Table 5 to this Subpart . . .
1. Coal-fired unit not low rank virgin coal	a. Filterable particulate matter (PM). OR Total non-Hg HAP metals. OR Individual HAP metals: Antimony (Sb) ..... Arsenic (As) ..... Beryllium (Be) ..... Cadmium (Cd) ..... Chromium (Cr) ..... Cobalt (Co) ..... Lead (Pb) ..... Manganese (Mn) ... Nickel (Ni) ..... Selenium (Se) ..... b. Hydrogen chloride (HCl).  OR Sulfur dioxide (SO <sub>2</sub> ) <sup>3</sup> .	9.0E-2 lb•MWh <sup>1</sup> ...  OR 6.0E-2 lb•GWh .....  OR .....  8.0E-3 lb•GWh. 3.0E-3 lb•GWh. 6.0E-4 lb•GWh. 4.0E-4 lb•GWh. 7.0E-3 lb•GWh. 2.0E-3 lb•GWh. 2.0E-2 lb•GWh. 4.0E-3 lb•GWh. 4.0E-2 lb•GWh. 5.0E-2 lb•GWh. 1.0E-2 lb•MWh .....  OR 1.0 lb•MWh .....	Collect a minimum catch of 6.0 milligrams or a minimum sample volume of 4 dscm per run.  Collect a minimum of 4 dscm per run.  Collect a minimum of 3 dscm per run.  For Method 26A at appendix A-8 to part 60 of this chapter, collect a minimum of 3 dscm per run. For ASTM D6348-03(Reapproved 2010) <sup>2</sup> or Method 320 at appendix A to part 63 of this chapter, sample for a minimum of 1 hour.  SO <sub>2</sub> CEMS.
2. Coal-fired units low rank virgin coal ...	c. Mercury (Hg) ..... a. Filterable particulate matter (PM). OR Total non-Hg HAP metals. OR Individual HAP metals: Antimony (Sb) ..... Arsenic (As) ..... Beryllium (Be) ..... Cadmium (Cd) ..... Chromium (Cr) ..... Cobalt (Co) ..... Lead (Pb) ..... Manganese (Mn) ... Nickel (Ni) ..... Selenium (Se) ..... b. Hydrogen chloride (HCl).  OR Sulfur dioxide (SO <sub>2</sub> ) <sup>3</sup> .	3.0E-3 lb•GWh ..... 9.0E-2 lb•MWh <sup>1</sup> ...  OR 6.0E-2 lb•GWh .....  OR .....  8.0E-3 lb•GWh. 3.0E-3 lb•GWh. 6.0E-4 lb•GWh. 4.0E-4 lb•GWh. 7.0E-3 lb•GWh. 2.0E-3 lb•GWh. 2.0E-2 lb•GWh. 4.0E-3 lb•GWh. 4.0E-2 lb•GWh. 5.0E-2 lb•GWh. 1.0E-2 lb•MWh .....  OR 1.0 lb•MWh .....	Hg CEMS or sorbent trap monitoring system only. Collect a minimum catch of 6.0 milligrams or a minimum sample volume of 4 dscm per run.  Collect a minimum of 4 dscm per run.  Collect a minimum of 3 dscm per run.  For Method 26A, collect a minimum of 3 dscm per run For ASTM D6348-03(Reapproved 2010) <sup>2</sup> or Method 320, sample for a minimum of 1 hour.  SO <sub>2</sub> CEMS.

If your EGU is in this subcategory . . . .	For the following pollutants . . . .	You must meet the following emission limits and work practice standards . . . .	Using these requirements, as appropriate (e.g., specified sampling volume or test run duration) and limitations with the test methods in Table 5 to this Subpart . . . .
3. IGCC unit	<p>c. Mercury (Hg) . . . .</p> <p>a. Filterable particulate matter (PM). OR Total non-Hg HAP metals. OR Individual HAP metals: Antimony (Sb) . . . . . Arsenic (As) . . . . . Beryllium (Be) . . . . . Cadmium (Cd) . . . . . Chromium (Cr) . . . . . Cobalt (Co) . . . . . Lead (Pb) . . . . . Manganese (Mn) . . . . . Nickel (Ni) . . . . . Selenium (Se) . . . . . b. Hydrogen chloride (HCl).  OR Sulfur dioxide (SO<sub>2</sub>)<sup>3</sup>.</p>	<p>Before July 8, 2024: 4.0E-2 lb•GWh; On or after July 8, 2024: 1.3E-2 lb•GWh. 7.0E-2 lb•MWh<sup>4</sup> 9.0E-2 lb•MWh<sup>5</sup>.</p> <p>OR 4.0E-1 lb•GWh . . . .</p> <p>OR .....</p> <p>2.0E-2 lb•GWh. 2.0E-2 lb•GWh. 1.0E-3 lb•GWh. 2.0E-3 lb•GWh. 4.0E-2 lb•GWh. 4.0E-3 lb•GWh. 9.0E-3 lb•GWh. 2.0E-2 lb•GWh. 7.0E-2 lb•GWh. 3.0E-1 lb•GWh. 2.0E-3 lb•MWh . . . .</p> <p>4.0E-1 lb•MWh . . . .</p>	<p>Hg CEMS or sorbent trap monitoring system only.</p> <p>Collect a minimum catch of 3.0 milligrams or a minimum sample volume of 2 dscm per run.</p> <p>Collect a minimum of 1 dscm per run.</p> <p>Collect a minimum of 2 dscm per run.</p> <p>For Method 26A, collect a minimum of 1 dscm per run; for Method 26 at appendix A-8 to part 60 of this chapter, collect a minimum of 120 liters per run. For ASTM D6348-03(Reapproved 2010)<sup>2</sup> or Method 320, sample for a minimum of 1 hour.</p> <p>SO<sub>2</sub> CEMS.</p>
4. Liquid oil-fired unit—continental (excluding limited-use liquid oil-fired subcategory units).	<p>c. Mercury (Hg) . . . .</p> <p>a. Filterable particulate matter (PM). OR Total HAP metals .. OR Individual HAP metals: Antimony (Sb) . . . . . Arsenic (As) . . . . . Beryllium (Be) . . . . . Cadmium (Cd) . . . . . Chromium (Cr) . . . . . Cobalt (Co) . . . . . Lead (Pb) . . . . . Manganese (Mn) . . . . . Nickel (Ni) . . . . . Selenium (Se) . . . . . Mercury (Hg) . . . . .</p> <p>b. Hydrogen chloride (HCl).  c. Hydrogen fluoride (HF).</p>	<p>3.0E-3 lb•GWh . . . .</p> <p>3.0E-1 lb•MWh<sup>1</sup> . . . .</p> <p>OR 2.0E-4 lb•MWh . . . .</p> <p>OR .....</p> <p>1.0E-2 lb•GWh. 3.0E-3 lb•GWh. 5.0E-4 lb•GWh. 2.0E-4 lb•GWh. 2.0E-2 lb•GWh. 3.0E-2 lb•GWh. 8.0E-3 lb•GWh. 2.0E-2 lb•GWh. 9.0E-2 lb•GWh. 2.0E-2 lb•GWh. 1.0E-4 lb•GWh . . . .</p> <p>4.0E-4 lb•MWh . . . .</p> <p>4.0E-4 lb•MWh . . . .</p>	<p>Hg CEMS or sorbent trap monitoring system only. Collect a minimum of 1 dscm per run.</p> <p>Collect a minimum of 2 dscm per run.</p> <p>Collect a minimum of 2 dscm per run.</p> <p>For Method 30B at appendix A-8 to part 60 of this chapter sample volume determination (Section 8.2.4), the estimated Hg concentration should nominally be &lt;1/2 the standard. For Method 26A, collect a minimum of 3 dscm per run. For ASTM D6348-03(Reapproved 2010)<sup>2</sup> or Method 320, sample for a minimum of 1 hour. For Method 26A, collect a minimum of 3 dscm per run. For ASTM D6348-03 (Reapproved 2010)<sup>2</sup> or Method 320, sample for a minimum of 1 hour.</p>
5. Liquid oil-fired unit—non-continental (excluding limited-use liquid oil-fired subcategory units).	<p>a. Filterable particulate matter (PM). OR Total HAP metals .. OR Individual HAP metals: Antimony (Sb) . . . . .</p>	<p>2.0E-1 lb•MWh<sup>1</sup> . . . .</p> <p>OR 7.0E-3 lb•MWh . . . .</p> <p>OR .....</p> <p>8.0E-3 lb•GWh.</p>	<p>Collect a minimum of 1 dscm per run.</p> <p>Collect a minimum of 3 dscm per run.</p>

If your EGU is in this subcategory . . .	For the following pollutants . . .	You must meet the following emission limits and work practice standards . . .	Using these requirements, as appropriate (e.g., specified sampling volume or test run duration) and limitations with the test methods in Table 5 to this Subpart . . .
6. Solid oil-derived fuel-fired unit .....	Arsenic (As) ..... Beryllium (Be) ..... Cadmium (Cd) ..... Chromium (Cr) ..... Cobalt (Co) ..... Lead (Pb) ..... Manganese (Mn) ... Nickel (Ni) ..... Selenium (Se) ..... Mercury (Hg) .....	6.0E-2 lb•GWh. 2.0E-3 lb•GWh. 2.0E-3 lb•GWh. 2.0E-2 lb•GWh. 3.0E-1 lb•GWh. 3.0E-2 lb•GWh. 1.0E-1 lb•GWh. 4.1E0 lb•GWh. 2.0E-2 lb•GWh. 4.0E-4 lb•GWh .....	For Method 30B sample volume determination (Section 8.2.4), the estimated Hg concentration should nominally be <1/2 the standard.
	b. Hydrogen chloride (HCl).  c. Hydrogen fluoride (HF).  a. Filterable particulate matter (PM). OR Total non-Hg HAP metals. OR Individual HAP metals: Antimony (Sb) ..... Arsenic (As) ..... Beryllium (Be) ..... Cadmium (Cd) ..... Chromium (Cr) ..... Cobalt (Co) ..... Lead (Pb) ..... Manganese (Mn) ... Nickel (Ni) ..... Selenium (Se) ..... b. Hydrogen chloride (HCl).  OR Sulfur dioxide (SO <sub>2</sub> ) <sup>3</sup> . c. Mercury (Hg) .....	2.0E-3 lb•MWh .....  5.0E-4 lb•MWh .....  3.0E-2 lb•MWh <sup>1</sup> ...  OR 6.0E-1 lb•GWh .....  OR .....  8.0E-3 lb•GWh. 3.0E-3 lb•GWh. 6.0E-4 lb•GWh. 7.0E-4 lb•GWh. 6.0E-3 lb•GWh. 2.0E-3 lb•GWh. 2.0E-2 lb•GWh. 7.0E-3 lb•GWh. 4.0E-2 lb•GWh. 6.0E-3 lb•GWh. 4.0E-4 lb•MWh .....  1.0 lb•MWh .....  2.0E-3 lb•GWh .....	For Method 26A, collect a minimum of 1 dscm per run; for Method 26, collect a minimum of 120 liters per run. For ASTM D6348-03 (Reapproved 2010) <sup>2</sup> or Method 320, sample for a minimum of 1 hour.  For Method 26A, collect a minimum of 3 dscm per run. For ASTM D6348-03 (Reapproved 2010) <sup>2</sup> or Method 320, sample for a minimum of 1 hour.  Collect a minimum of 1 dscm per run.  Collect a minimum of 3 dscm per run.  For Method 26A, collect a minimum of 3 dscm per run. For ASTM D6348-03 (Reapproved 2010) <sup>2</sup> or Method 320, sample for a minimum of 1 hour.  SO <sub>2</sub> CEMS.  Hg CEMS or Sorbent trap monitoring system only.

<sup>1</sup> Gross output.  
<sup>2</sup> Incorporated by reference, see § 63.14.  
<sup>3</sup> You may not use the alternate SO<sub>2</sub> limit if your EGU does not have some form of FGD system (or, in the case of IGCC EGUs, some other acid gas removal system either upstream or downstream of the combined cycle block) and SO<sub>2</sub> CEMS installed.  
<sup>4</sup> Duct burners on syngas; gross output.  
<sup>5</sup> Duct burners on natural gas; gross output.

! 19. Revise table 2 to subpart UUUUU of part 63 to read as follows: Table 2 to Subpart UUUUU of Part 63—  
Emission Limits for Existing EGUs

As stated in § 63.9991, you must comply with the following applicable emission limits: <sup>1</sup>

If your EGU is in this subcategory . . .	For the following pollutants . . .	You must meet the following emission limits and work practice standards . . .	Using these requirements, as appropriate (e.g., specified sampling volume or test run duration) and limitations with the test methods in Table 5 to this Subpart . . .
1. Coal-fired unit not low rank virgin coal	a. Filterable particulate matter (PM).	Before July 6, 2027: 3.0E-2 lb•MMBtu or 3.0E-1 lb•MWh <sup>2</sup> .	Before July 6, 2027: Collect a minimum of 1 dscm per run.



If your EGU is in this subcategory . . . .	For the following pollutants . . . .	You must meet the following emission limits and work practice standards . . . .	Using these requirements, as appropriate (e.g., specified sampling volume or test run duration) and limitations with the test methods in Table 5 to this Subpart . . . .
	<p>OR</p> <p>Total non-Hg HAP metals.</p> <p>OR</p> <p>Individual HAP metals:</p> <p>Antimony (Sb) .....</p> <p>Arsenic (As) .....</p> <p>Beryllium (Be) .....</p> <p>Cadmium (Cd) .....</p> <p>Chromium (Cr) .....</p>	<p>On or after July 6, 2027: 1.0E-2 lb•MMBtu or 1.0E-1 lb•MWh<sup>2</sup>.</p> <p>OR</p> <p>Before July 6, 2027: 5.0E-5 lb•MMBtu or 5.0E-1 lb•GWh.</p> <p>On or after July 6, 2027: 1.7E-5 lb•MMBtu or 1.7E-1 lb•GWh.</p> <p>OR</p> <p>.....</p> <p>Before July 6, 2027: 8.0E-1 lb•TBtu or 8.0E-3 lb•GWh.</p> <p>On or after July 6, 2027: 2.7E-1 lb•TBtu or 2.7E-3 lb•GWh.</p> <p>Before July 6, 2027: 1.1E0 lb•TBtu or 2.0E-2 lb•GWh.</p> <p>On or after July 6, 2027: 3.7E-1 lb•TBtu or 6.7E-3 lb•GWh.</p> <p>Before July 6, 2027: 2.0E-1 lb•TBtu or 2.0E-3 lb•GWh.</p> <p>On or after July 6, 2027: 6.7E-2 lb•TBtu or 6.7E-4 lb•GWh.</p> <p>Before July 6, 2027: 3.0E-1 lb•TBtu or 3.0E-3 lb•GWh.</p> <p>On or after July 6, 2027: 1.0E-1 lb•TBtu or 1.0E-3 lb•GWh.</p> <p>Before July 6, 2027: 2.8E0 lb•TBtu or 3.0E-2 lb•GWh.</p> <p>On or after July 6, 2027: 9.3E-1 lb•TBtu or 1.0E-2 lb•GWh.</p>	<p>On or after July 6, 2027: Collect a minimum catch of 6.0 milligrams or a minimum sample volume of 4 dscm per run.</p> <p>On or after July 6, 2027 you may only demonstrate compliance with the following total non-Hg HAP metals emission limit if you request and receive approval for the use of a non-Hg HAP metals CMS under 40 CFR 63.7(f). Collect a minimum of 1 dscm per run.</p> <p>On or after July 6, 2027 you may only demonstrate compliance with the following individual HAP metals emissions limits if you request and receive approval for the use of a non-Hg HAP metals CMS under 40 CFR 63.7(f). Collect a minimum of 3 dscm per run.</p>

If your EGU is in this subcategory . . .	For the following pollutants . . .	You must meet the following emission limits and work practice standards . . .	Using these requirements, as appropriate (e.g., specified sampling volume or test run duration) and limitations with the test methods in Table 5 to this Subpart . . .
2. Coal-fired unit low rank virgin coal ....	Cobalt (Co) .....	Before July 6, 2027: 8.0E-1 lb•TBtu or 8.0E-3 lb•GWh. On or after July 6, 2027: 2.7E-1 lb•TBtu or 2.7E-3 lb•GWh.	
	Lead (Pb) .....	Before July 6, 2027: 1.2E0 lb•TBtu or 2.0E-2 lb•GWh. On or after July 6, 2027: 4.0E-1 lb•TBtu or 6.7E-3 lb•GWh.	
	Manganese (Mn) ...	Before July 6, 2027: 4.0E0 lb•TBtu or 5.0E-2 lb•GWh. On or after July 6, 2027: 1.3E0 lb•TBtu or 1.7E-2 lb•GWh.	
	Nickel (Ni) .....	Before July 6, 2027: 3.5E0 lb•TBtu or 4.0E-2 lb•GWh. On or after July 6, 2027: 1.2E0 lb•TBtu or 1.3E-2 lb•GWh.	
	Selenium (Se) .....	Before July 6, 2027: 5.0E0 lb•TBtu or 6.0E-2 lb•GWh. On or after July 6, 2027: 1.7E0 lb•TBtu or 2.0E-2 lb•GWh.	
	b. Hydrogen chloride (HCl).	2.0E-3 lb•MMBtu or 2.0E-2 lb•MWh.	
	OR Sulfur dioxide (SO <sub>2</sub> ) <sup>4</sup> .	2.0E-1 lb•MMBtu or 1.5E0 lb•MWh.	SO <sub>2</sub> CEMS.
	c. Mercury (Hg) .....	1.2E0 lb•TBtu or 1.3E-2 lb•GWh.	LEE Testing for 30 days with a sampling period consistent with that given in section 5.2.1 of appendix A to this subpart per Method 30B at appendix A-8 to part 60 of this chapter run or Hg CEMS or sorbent trap monitoring system only.
	OR	1.0E0 lb•TBtu or 1.1E-2 lb•GWh.	LEE Testing for 90 days with a sampling period consistent with that given in section 5.2.1 of appendix A to this subpart per Method 30B run or Hg CEMS or sorbent trap monitoring system only.
	a. Filterable particulate matter (PM).	Before July 6, 2027: 3.0E-2 lb•MMBtu or 3.0E-1 lb•MWh <sup>2</sup> . On or after July 6, 2027: 1.0E-2 lb•MMBtu or 1.0E-1 lb•MWh <sup>2</sup> .	Before July 6, 2027: Collect a minimum of 1 dscm per run. On or after July 6, 2027: Collect a minimum catch of 6.0 milligrams or a minimum sample volume of 4 dscm per run.

If your EGU is in this subcategory . . . .	For the following pollutants . . . .	You must meet the following emission limits and work practice standards . . . .	Using these requirements, as appropriate (e.g., specified sampling volume or test run duration) and limitations with the test methods in Table 5 to this Subpart . . . .
	OR	OR	On or after July 6, 2027 you may only demonstrate compliance with the following total non-Hg HAP metals emission limit if you request and receive approval for the use of a non-Hg HAP metals CMS under 40 CFR 63.7(f). Collect a minimum of 1 dscm per run.
	Total non-Hg HAP metals.	Before July 6, 2027: 5.0E-5 lb•MMBtu or 5.0E-1 lb•GWh. On or after July 6, 2027: 1.7E-5 lb•MMBtu or 1.7E-1 lb•GWh.	
	OR	OR	On or after July 6, 2027 you may only demonstrate compliance with the following individual HAP metals emissions limits if you request and receive approval for the use of a non-Hg HAP metals CMS under 40 CFR 63.7(f). Collect a minimum of 3 dscm per run.
	Individual HAP metals:	.....	
	Antimony (Sb) .....	Before July 6, 2027: 8.0E-1 lb•TBtu or 8.0E-3 lb•GWh. On or after July 6, 2027: 2.7E-1 lb•TBtu or 2.7E-3 lb•GWh.	
	Arsenic (As) .....	Before July 6, 2027: 1.1E0 lb•TBtu or 2.0E-2 lb•GWh. On or after July 6, 2027: 3.7E-1 lb•TBtu or 6.7E-3 lb•GWh.	
	Beryllium (Be) .....	Before July 6, 2027: 2.0E-1 lb•TBtu or 2.0E-3 lb•GWh. On or after July 6, 2027: 6.7E-2 lb•TBtu or 6.7E-4 lb•GWh.	
	Cadmium (Cd) .....	Before July 6, 2027: 3.0E-1 lb•TBtu or 3.0E-3 lb•GWh. On or after July 6, 2027: 1.0E-1 lb•TBtu or 1.0E-3 lb•GWh.	
	Chromium (Cr) .....	Before July 6, 2027: 2.8E0 lb•TBtu or 3.0E-2 lb•GWh. On or after July 6, 2027: 9.3E-1 lb•TBtu or 1.0E-2 lb•GWh.	
	Cobalt (Co) .....	Before July 6, 2027: 8.0E-1 lb•TBtu or 8.0E-3 lb•GWh. On or after July 6, 2027: 2.7E-1 lb•TBtu or 2.7E-3 lb•GWh.	

If your EGU is in this subcategory . . . .	For the following pollutants . . . .	You must meet the following emission limits and work practice standards . . . .	Using these requirements, as appropriate (e.g., specified sampling volume or test run duration) and limitations with the test methods in Table 5 to this Subpart . . . .
3. IGCC unit .....	Lead (Pb) .....	Before July 6, 2027: 1.2E0 lb•TBtu or 2.0E–2 lb•GWh. On or after July 6, 2027: 4.0E–1 lb•TBtu or 6.7E–3 lb•GWh.	For Method 26A, collect a minimum of 0.75 dscm per run; for Method 26 at appendix A–8 to part 60 of this chapter, collect a minimum of 120 liters per run. For ASTM D6348–03 (Reapproved 2010) <sup>3</sup> or Method 320, sample for a minimum of 1 hour.  SO <sub>2</sub> CEMS.  LEE Testing for 30 days with a sampling period consistent with that given in section 5.2.1 of appendix A to this subpart per Method 30B run or Hg CEMS or sorbent trap monitoring system only.  Before July 6, 2027: Collect a minimum of 1 dscm per run. On or after July 6, 2027: Collect a minimum catch of 3.0 milligrams or a minimum sample volume of 2 dscm per run.  Collect a minimum of 1 dscm per run.  Collect a minimum of 2 dscm per run.
	Manganese (Mn) ...	Before July 6, 2027: 4.0E0 lb•TBtu or 5.0E–2 lb•GWh. On or after July 6, 2027: 1.3E0 lb•TBtu or 1.7E–2 lb•GWh.	
	Nickel (Ni) .....	Before July 6, 2027: 3.5E0 lb•TBtu or 4.0E–2 lb•GWh. On or after July 6, 2027: 1.2E0 lb•TBtu or 1.3E–2 lb•GWh.	
	Selenium (Se) .....	Before July 6, 2027: 5.0E0 lb•TBtu or 6.0E–2 lb•GWh. On or after July 6, 2027: 1.7E0 lb•TBtu or 2.0E–2 lb•GWh.	
	b. Hydrogen chloride (HCl).	2.0E–3 lb•MMBtu or 2.0E–2 lb•MWh.	
	OR Sulfur dioxide (SO <sub>2</sub> ) <sup>4</sup> .	OR 2.0E–1 lb•MMBtu or 1.5E0 lb•MWh.	
	c. Mercury (Hg) .....	Before July 6, 2027: 4.0E0 lb•TBtu or 4.0E–2 lb•GWh. On or after July 6, 2027: 1.2E0 lb•TBtu or 1.3E–2 lb•GWh.	
	a. Filterable particulate matter (PM).	4.0E–2 lb•MMBtu or 4.0E–1 lb•MWh <sup>2</sup> .	
	OR Total non-Hg HAP metals.	OR 6.0E–5 lb•MMBtu or 5.0E–1 lb•GWh.	
	OR Individual HAP metals:.	OR .....	
	Antimony (Sb) .....	1.4E0 lb•TBtu or 2.0E–2 lb•GWh.	
	Arsenic (As) .....	1.5E0 lb•TBtu or 2.0E–2 lb•GWh.	
	Beryllium (Be) .....	1.0E–1 lb•TBtu or 1.0E–3 lb•GWh.	
Cadmium (Cd) .....	1.5E–1 lb•TBtu or 2.0E–3 lb•GWh.		
Chromium (Cr) .....	2.9E0 lb•TBtu or 3.0E–2 lb•GWh.		

If your EGU is in this subcategory . . .	For the following pollutants . . .	You must meet the following emission limits and work practice standards . . .	Using these requirements, as appropriate (e.g., specified sampling volume or test run duration) and limitations with the test methods in Table 5 to this Subpart . . .
4. Liquid oil-fired unit—continental (excluding limited-use liquid oil-fired subcategory units).	Cobalt (Co) ..... Lead (Pb) ..... Manganese (Mn) ... Nickel (Ni) ..... Selenium (Se) ..... b. Hydrogen chloride (HCl).  c. Mercury (Hg) .....  a. Filterable particulate matter (PM). OR  Total HAP metals ..  OR  Individual HAP metals: Antimony (Sb) ..... Arsenic (As) ..... Beryllium (Be) ..... Cadmium (Cd) ..... Chromium (Cr) ..... Cobalt (Co) ..... Lead (Pb) ..... Manganese (Mn) ... Nickel (Ni) ..... Selenium (Se) ..... Mercury (Hg) .....  b. Hydrogen chloride (HCl).  c. Hydrogen fluoride (HF).	1.2E0 lb•TBtu or 2.0E–2 lb•GWh. 1.9E+2 lb•TBtu or 1.8E0 lb•GWh. 2.5E0 lb•TBtu or 3.0E–2 lb•GWh. 6.5E0 lb•TBtu or 7.0E–2 lb•GWh. 2.2E+1 lb•TBtu or 3.0E–1 lb•GWh. 5.0E–4 lb•MMBtu or 5.0E–3 lb•MWh.  2.5E0 lb•TBtu or 3.0E–2 lb•GWh.  3.0E–2 lb•MMBtu or 3.0E–1 lb•MWh <sup>2</sup> . OR  8.0E–4 lb•MMBtu or 8.0E–3 lb•MWh.  OR  ..... 1.3E+1 lb•TBtu or 2.0E–1 lb•GWh. 2.8E0 lb•TBtu or 3.0E–2 lb•GWh. 2.0E–1 lb•TBtu or 2.0E–3 lb•GWh. 3.0E–1 lb•TBtu or 2.0E–3 lb•GWh. 5.5E0 lb•TBtu or 6.0E–2 lb•GWh. 2.1E+1 lb•TBtu or 3.0E–1 lb•GWh. 8.1E0 lb•TBtu or 8.0E–2 lb•GWh. 2.2E+1 lb•TBtu or 3.0E–1 lb•GWh. 1.1E+2 lb•TBtu or 1.1E0 lb•GWh. 3.3E0 lb•TBtu or 4.0E–2 lb•GWh. 2.0E–1 lb•TBtu or 2.0E–3 lb•GWh.  2.0E–3 lb•MMBtu or 1.0E–2 lb•MWh.  4.0E–4 lb•MMBtu or 4.0E–3 lb•MWh.  3.0E–2 lb•MMBtu or 3.0E–1 lb•MWh <sup>2</sup> .	For Method 26A, collect a minimum of 1 dscm per run; for Method 26, collect a minimum of 120 liters per run. For ASTM D6348–03 (Reapproved 2010) <sup>3</sup> or Method 320, sample for a minimum of 1 hour. LEE Testing for 30 days with a sampling period consistent with that given in section 5.2.1 of appendix A to this subpart per Method 30B run or Hg CEMS or sorbent trap monitoring system only. Collect a minimum of 1 dscm per run.  On or after July 6, 2027 you may only demonstrate compliance with the following total non-Hg HAP metals emission limit if you request and receive approval for the use of a non-Hg HAP metals CMS under 40 CFR 63.7(f). Collect a minimum of 1 dscm per run.  On or after July 6, 2027 you may only demonstrate compliance with the following individual HAP metals emissions limits if you request and receive approval for the use of a non-Hg HAP metals CMS under 40 CFR 63.7(f). Collect a minimum of 1 dscm per run.   For Method 30B sample volume determination (Section 8.2.4), the estimated Hg concentration should nominally be <1/2 the standard. For Method 26A, collect a minimum of 1 dscm per run; for Method 26, collect a minimum of 120 liters per run. For ASTM D6348–03 (Reapproved 2010) <sup>3</sup> or Method 320, sample for a minimum of 1 hour. For Method 26A, collect a minimum of 1 dscm per run; for Method 26, collect a minimum of 120 liters per run. For ASTM D6348–03 (Reapproved 2010) <sup>3</sup> or Method 320, sample for a minimum of 1 hour. Collect a minimum of 1 dscm per run.
5. Liquid oil-fired unit—non-continental (excluding limited-use liquid oil-fired subcategory units).	a. Filterable particulate matter (PM).	3.0E–2 lb•MMBtu or 3.0E–1 lb•MWh <sup>2</sup> .	Collect a minimum of 1 dscm per run.

If your EGU is in this subcategory . . . .	For the following pollutants . . . .	You must meet the following emission limits and work practice standards . . . .	Using these requirements, as appropriate (e.g., specified sampling volume or test run duration) and limitations with the test methods in Table 5 to this Subpart . . . .
6. Solid oil-derived fuel-fired unit .....	<p>OR</p> <p>Total HAP metals ..</p> <p>OR</p> <p>Individual HAP metals:</p> <p>Antimony (Sb) .....</p> <p>Arsenic (As) .....</p> <p>Beryllium (Be) .....</p> <p>Cadmium (Cd) .....</p> <p>Chromium (Cr) .....</p> <p>Cobalt (Co) .....</p> <p>Lead (Pb) .....</p> <p>Manganese (Mn) ...</p> <p>Nickel (Ni) .....</p> <p>Selenium (Se) .....</p> <p>Mercury (Hg) .....</p> <p>b. Hydrogen chloride (HCl).</p> <p>c. Hydrogen fluoride (HF).</p> <p>a. Filterable particulate matter (PM).</p>	<p>OR</p> <p>6.0E-4 lb•MMBtu or 7.0E-3 lb•MWh.</p> <p>OR</p> <p>.....</p> <p>2.2E0 lb•TBtu or 2.0E-2 lb•GWh.</p> <p>4.3E0 lb•TBtu or 8.0E-2 lb•GWh.</p> <p>6.0E-1 lb•TBtu or 3.0E-3 lb•GWh.</p> <p>3.0E-1 lb•TBtu or 3.0E-3 lb•GWh.</p> <p>3.1E+1 lb•TBtu or 3.0E-1 lb•GWh.</p> <p>1.1E+2 lb•TBtu or 1.4E0 lb•GWh.</p> <p>4.9E0 lb•TBtu or 8.0E-2 lb•GWh.</p> <p>2.0E+1 lb•TBtu or 3.0E-1 lb•GWh.</p> <p>4.7E+2 lb•TBtu or 4.1E0 lb•GWh.</p> <p>9.8E0 lb•TBtu or 2.0E-1 lb•GWh.</p> <p>4.0E-2 lb•TBtu or 4.0E-4 lb•GWh.</p> <p>2.0E-4 lb•MMBtu or 2.0E-3 lb•MWh.</p> <p>6.0E-5 lb•MMBtu or 5.0E-4 lb•MWh.</p> <p>8.0E-3 lb•MMBtu or 9.0E-2 lb•MWh<sup>2</sup>.</p>	<p>On or after July 6, 2027 you may only demonstrate compliance with the following total non-Hg HAP metals emission limit if you request and receive approval for the use of a non-Hg HAP metals CMS under 40 CFR 63.7(f). Collect a minimum of 1 dscm per run.</p> <p>On or after July 6, 2027 you may only demonstrate compliance with the following individual HAP metals emissions limits if you request and receive approval for the use of a non-Hg HAP metals CMS under 40 CFR 63.7(f). Collect a minimum of 2 dscm per run.</p> <p>For Method 30B sample volume determination (Section 8.2.4), the estimated Hg concentration should nominally be &lt;1/2 the standard.</p> <p>For Method 26A, collect a minimum of 1 dscm per run; for Method 26, collect a minimum of 120 liters per run. For ASTM D6348-03 (Reapproved 2010)<sup>3</sup> or Method 320, sample for a minimum of 2 hours.</p> <p>For Method 26A, collect a minimum of 3 dscm per run. For ASTM D6348-03 (Reapproved 2010)<sup>3</sup> or Method 320, sample for a minimum of 2 hours.</p> <p>Before July 6, 2027: Collect a minimum of 1 dscm per run.</p> <p>On or after July 6, 2027: Collect a minimum catch of 6.0 milligrams or a minimum sample volume of 4 dscm per run.</p>
	<p>OR</p> <p>Total non-Hg HAP metals.</p> <p>OR</p> <p>Individual HAP metals:</p> <p>Antimony (Sb) .....</p> <p>Arsenic (As) .....</p>	<p>OR</p> <p>4.0E-5 lb•MMBtu or 6.0E-1 lb•GWh.</p> <p>OR</p> <p>.....</p> <p>8.0E-1 lb•TBtu or 7.0E-3 lb•GWh.</p> <p>3.0E-1 lb•TBtu or 5.0E-3 lb•GWh.</p>	<p>On or after July 6, 2027 you may only demonstrate compliance with the following total non-Hg HAP metals emission limit if you request and receive approval for the use of a non-Hg HAP metals CMS under 40 CFR 63.7(f). Collect a minimum of 1 dscm per run.</p> <p>On or after July 6, 2027 you may only demonstrate compliance with the following individual HAP metals emissions limits if you request and receive approval for the use of a non-Hg HAP metals CMS under 40 CFR 63.7(f). Collect a minimum of 3 dscm per run.</p>

If your EGU is in this subcategory . . .	For the following pollutants . . .	You must meet the following emission limits and work practice standards . . .	Using these requirements, as appropriate (e.g., specified sampling volume or test run duration) and limitations with the test methods in Table 5 to this Subpart . . .
7. Eastern Bituminous Coal Refuse (EBCR)-fired unit.	Beryllium (Be) .....	6.0E-2 lb•TBtu or 5.0E-4 lb•GWh.	For Method 26A, collect a minimum of 0.75 dscm per run; for Method 26, collect a minimum of 120 liters per run. For ASTM D6348-03 (Reapproved 2010) <sup>3</sup> or Method 320, sample for a minimum of 1 hour.  SO <sub>2</sub> CEMS.  LEE Testing for 30 days with a sampling period consistent with that given in section 5.2.1 of appendix A to this subpart per Method 30B run or Hg CEMS or sorbent trap monitoring system only. Before July 6, 2027: Collect a minimum of 1 dscm per run. On or after July 6, 2027: Collect a minimum catch of 6.0 milligrams or a minimum sample volume of 4 dscm per run.  On or after July 6, 2027 you may only demonstrate compliance with the following total non-Hg HAP metals emission limit if you request and receive approval for the use of a non-Hg HAP metals CMS under 40 CFR 63.7(f). Collect a minimum of 1 dscm per run.  On or after July 6, 2027 you may only demonstrate compliance with the following individual HAP metals emissions limits if you request and receive approval for the use of a non-Hg HAP metals CMS under 40 CFR 63.7(f). Collect a minimum of 3 dscm per run.
	Cadmium (Cd) .....	3.0E-1 lb•TBtu or 4.0E-3 lb•GWh.	
	Chromium (Cr) .....	8.0E-1 lb•TBtu or 2.0E-2 lb•GWh.	
	Cobalt (Co) .....	1.1E0 lb•TBtu or 2.0E-2 lb•GWh.	
	Lead (Pb) .....	8.0E-1 lb•TBtu or 2.0E-2 lb•GWh.	
	Manganese (Mn) ...	2.3E0 lb•TBtu or 4.0E-2 lb•GWh.	
	Nickel (Ni) .....	9.0E0 lb•TBtu or 2.0E-1 lb•GWh.	
	Selenium (Se) .....	1.2E0 lb•TBtu or 2.0E-2 lb•GWh.	
	b. Hydrogen chloride (HCl).	5.0E-3 lb•MMBtu or 8.0E-2 lb•MWh.	
	OR Sulfur dioxide (SO <sub>2</sub> ) <sup>4</sup> .	OR 3.0E-1 lb•MMBtu or 2.0E0 lb•MWh.	
c. Mercury (Hg) .....	2.0E-1 lb•TBtu or 2.0E-3 lb•GWh.		
a. Filterable particulate matter (PM).	Before July 6, 2027: 3.0E-2 lb•MMBtu or 3.0E-1 lb•MWh <sup>2</sup> . On or after July 6, 2027: 1.0E-2 lb•MMBtu or 1.0E-1 lb•MWh <sup>2</sup> .		
OR	OR		
Total non-Hg HAP metals.	Before July 6, 2027: 5.0E-5 lb•MMBtu or 5.0E-1 lb•GWh. On or after July 6, 2027: 1.7E-5 lb•MMBtu or 1.7E-1 lb•GWh.		
OR	OR		
Individual HAP metals: Antimony (Sb) .....	Before July 6, 2027: 8.0E-1 lb•TBtu or 8.0E-3 lb•GWh. On or after July 6, 2027: 2.7E-1 lb•TBtu or 2.7E-3 lb•GWh.		

If your EGU is in this subcategory . . .	For the following pollutants . . .	You must meet the following emission limits and work practice standards . . .	Using these requirements, as appropriate (e.g., specified sampling volume or test run duration) and limitations with the test methods in Table 5 to this Subpart . . .
	Arsenic (As) .....	Before July 6, 2027: 1.1E0 lb•TBtu or 2.0E–2 lb•GWh. On or after July 6, 2027: 3.7E–1 lb•TBtu or 6.7E–3 lb•GWh.	
	Beryllium (Be) .....	Before July 6, 2027: 2.0E–1 lb•TBtu or 2.0E–3 lb•GWh. On or after July 6, 2027: 6.7E–2 lb•TBtu or 6.7E–4 lb•GWh.	
	Cadmium (Cd) .....	Before July 6, 2027: 3.0E–1 lb•TBtu or 3.0E–3 lb•GWh. On or after July 6, 2027: 1.0E–1 lb•TBtu or 1.0E–3 lb•GWh.	
	Chromium (Cr) .....	Before July 6, 2027: 2.8E0 lb•TBtu or 3.0E–2 lb•GWh. On or after July 6, 2027: 9.3E–1 lb•TBtu or 1.0E–2 lb•GWh.	
	Cobalt (Co) .....	Before July 6, 2027: 8.0E–1 lb•TBtu or 8.0E–3 lb•GWh. On or after July 6, 2027: 2.7E–1 lb•TBtu or 2.7E–3 lb•GWh.	
	Lead (Pb) .....	Before July 6, 2027: 1.2E0 lb•TBtu or 2.0E–2 lb•GWh. On or after July 6, 2027: 4.0E–1 lb•TBtu or 6.7E–3 lb•GWh.	
	Manganese (Mn) ...	Before July 6, 2027: 4.0E0 lb•TBtu or 5.0E–2 lb•GWh. On or after July 6, 2027: 1.3E0 lb•TBtu or 1.7E–2 lb•GWh.	
	Nickel (Ni) .....	Before July 6, 2027: 3.5E0 lb•TBtu or 4.0E–2 lb•GWh. On or after July 6, 2027: 1.2E0 lb•TBtu or 1.3E–2 lb•GWh.	



If your EGU is in this subcategory . . . .	For the following pollutants . . . .	You must meet the following emission limits and work practice standards . . . .	Using these requirements, as appropriate (e.g., specified sampling volume or test run duration) and limitations with the test methods in Table 5 to this Subpart . . . .
	<p>Selenium (Se) .....</p> <p>b. Hydrogen chloride (HCl).</p> <p>OR</p> <p>Sulfur dioxide (SO<sub>2</sub>)<sup>4</sup>.</p> <p>c. Mercury (Hg) .....</p> <p>OR</p>	<p>Before July 6, 2027: 5.0E0 lb•TBtu or 6.0E-2 lb•GWh.</p> <p>On or after July 6, 2027: 1.7E0 lb•TBtu or 2.0E-2 lb•GWh.</p> <p>4.0E-2 lb•MMBtu or 4.0E-1 lb•MWh.</p> <p>6E-1 lb•MMBtu or 9E0 lb•MWh.</p> <p>1.2E0 lb•TBtu or 1.3E-2 lb•GWh.</p> <p>1.0E0 lb•TBtu or 1.1E-2 lb•GWh.</p>	<p>For Method 26A at appendix A-8 to part 60 of this chapter, collect a minimum of 0.75 dscm per run; for Method 26, collect a minimum of 120 liters per run. For ASTM D6348-03 (Reapproved 2010)<sup>3</sup> or Method 320 at appendix A to part 63 of this chapter, sample for a minimum of 1 hour.</p> <p>SO<sub>2</sub> CEMS.</p> <p>LEE Testing for 30 days with a sampling period consistent with that given in section 5.2.1 of appendix A to this subpart per Method 30B at appendix A-8 to part 60 of this chapter run or Hg CEMS or sorbent trap monitoring system only.</p> <p>LEE Testing for 90 days with a sampling period consistent with that given in section 5.2.1 of appendix A to this subpart per Method 30B run or Hg CEMS or sorbent trap monitoring system only.</p>

<sup>1</sup> For LEE emissions testing for total PM, total HAP metals, individual HAP metals, HCl, and HF, the required minimum sampling volume must be increased nominally by a factor of 2. With the exception of IGCC units, on or after July 6, 2027 you may not pursue the LEE option for filterable PM, total non-Hg metals, and individual HAP metals and you may not comply with the total non-Hg HAP metals or individual HAP metals emissions limits for all existing EGU subcategories unless you request and receive approval for the use of a HAP metals CMS under § 63.7(f).

<sup>2</sup> Gross output.

<sup>3</sup> Incorporated by reference, see § 63.14.

<sup>4</sup> You may not use the alternate SO<sub>2</sub> limit if your EGU does not have some form of FGD system and SO<sub>2</sub> CEMS installed.

! 20. Revise table 3 to subpart UUUUU of part 63 to read as follows:

Table 3 to Subpart UUUUU of Part 63—  
Work Practice Standards

As stated in § 63.9991, you must comply with the following applicable work practice standards:

If your EGU is . . . .	You must meet the following . . . .
1. An existing EGU .....	Conduct a tune-up of the EGU burner and combustion controls at least each 36 calendar months, or each 48 calendar months if neural network combustion optimization software is employed, as specified in § 63.10021(e).
2. A new or reconstructed EGU .....	Conduct a tune-up of the EGU burner and combustion controls at least each 36 calendar months, or each 48 calendar months if neural network combustion optimization software is employed, as specified in § 63.10021(e).
3. A coal-fired, liquid oil-fired (excluding limited-use liquid oil-fired subcategory units), or solid oil-derived fuel-fired EGU during startup.	a. Before January 2, 2025 you have the option of complying using either of the following work practice standards in paragraphs (1) and (2). On or after January 2, 2025 you may not choose to use paragraph (2) of the definition of startup in § 63.10042 and the following associated work practice standards in paragraph (2).

<p>If your EGU is . . .</p>	<p>You must meet the following . . .</p>
	<p>(1) If you choose to comply using paragraph (1) of the definition of “startup” in § 63.10042, you must operate all CMS during startup. Startup means either the first-ever firing of fuel in a boiler for the purpose of producing electricity, or the firing of fuel in a boiler after a shutdown event for any purpose. Startup ends when any of the steam from the boiler is used to generate electricity for sale over the grid or for any other purpose (including on site use). For startup of a unit, you must use clean fuels as defined in § 63.10042 for ignition. Once you convert to firing coal, residual oil, or solid oil-derived fuel, you must engage all of the applicable control technologies except dry scrubber and SCR. You must start your dry scrubber and SCR systems, if present, appropriately to comply with relevant standards applicable during normal operation. You must comply with all applicable emissions limits at all times except for periods that meet the applicable definitions of startup and shutdown in this subpart. You must keep records during startup periods. You must provide reports concerning activities and startup periods, as specified in § 63.10011(g) and § 63.10021(h) and (i). If you elect to use paragraph (2) of the definition of startup in 40 CFR 63.10042, you must report the applicable information in 40 CFR 63.10031(c)(5) concerning startup periods as follows: For startup periods that occur on or prior to December 31, 2023, in PDF files in the semiannual compliance report; for startup periods that occur on or after January 1, 2024, quarterly, in PDF files, according to 40 CFR 63.10031(i).</p> <p>(2) If you choose to comply using paragraph (2) of the definition of “startup” in § 63.10042, you must operate all CMS during startup. You must also collect appropriate data, and you must calculate the pollutant emission rate for each hour of startup.</p> <p>For startup of an EGU, you must use one or a combination of the clean fuels defined in § 63.10042 to the maximum extent possible, taking into account considerations such as boiler or control device integrity, throughout the startup period. You must have sufficient clean fuel capacity to engage and operate your PM control device within one hour of adding coal, residual oil, or solid oil-derived fuel to the unit. You must meet the startup period work practice requirements as identified in § 63.10020(e).</p> <p>Once you start firing coal, residual oil, or solid oil-derived fuel, you must vent emissions to the main stack(s). You must comply with the applicable emission limits beginning with the hour after startup ends. You must engage and operate your PM control(s) within 1 hour of first firing of coal, residual oil, or solid oil-derived fuel.</p> <p>You must start all other applicable control devices as expeditiously as possible, considering safety and manufacturer*supplier recommendations, but, in any case, when necessary to comply with other standards made applicable to the EGU by a permit limit or a rule other than this subpart that require operation of the control devices.</p> <p>b. Relative to the syngas not fired in the combustion turbine of an IGCC EGU during startup, you must either: (1) Flare the syngas, or (2) route the syngas to duct burners, which may need to be installed, and route the flue gas from the duct burners to the heat recovery steam generator.</p> <p>c. If you choose to use just one set of sorbent traps to demonstrate compliance with the applicable Hg emission limit, you must comply with the limit at all times; otherwise, you must comply with the applicable emission limit at all times except for startup and shutdown periods.</p> <p>d. You must collect monitoring data during startup periods, as specified in § 63.10020(a) and (e). You must keep records during startup periods, as provided in §§ 63.10021(h) and 63.10032. You must provide reports concerning activities and startup periods, as specified in §§ 63.10011(g), 63.10021(i), and 63.10031. Before January 2, 2025, if you elect to use paragraph (2) of the definition of startup in 40 CFR 63.10042, you must report the applicable information in 40 CFR 63.10031(c)(5) concerning startup periods as follows: For startup periods that occur on or prior to December 31, 2023, in PDF files in the semiannual compliance report; for startup periods that occur on or after January 1, 2024, quarterly, in PDF files, according to 40 CFR 63.10031(i). On or after January 2, 2025 you may not use paragraph (2) of the definition of startup in § 63.10042.</p>
<p>4. A coal-fired, liquid oil-fired (excluding limited-use liquid oil-fired subcategory units), or solid oil-derived fuel-fired EGU during shutdown.</p>	<p>You must operate all CMS during shutdown. You must also collect appropriate data, and you must calculate the pollutant emission rate for each hour of shutdown for those pollutants for which a CMS is used.</p> <p>While firing coal, residual oil, or solid oil-derived fuel during shutdown, you must vent emissions to the main stack(s) and operate all applicable control devices and continue to operate those control devices after the cessation of coal, residual oil, or solid oil-derived fuel being fed into the EGU and for as long as possible thereafter considering operational and safety concerns. In any case, you must operate your controls when necessary to comply with other standards made applicable to the EGU by a permit limit or a rule other than this subpart and that require operation of the control devices.</p> <p>If, in addition to the fuel used prior to initiation of shutdown, another fuel must be used to support the shutdown process, that additional fuel must be one or a combination of the clean fuels defined in § 63.10042 and must be used to the maximum extent possible, taking into account considerations such as not compromising boiler or control device integrity.</p> <p>Relative to the syngas not fired in the combustion turbine of an IGCC EGU during shutdown, you must either: (1) Flare the syngas, or (2) route the syngas to duct burners, which may need to be installed, and route the flue gas from the duct burners to the heat recovery steam generator.</p>

If your EGU is . . .	You must meet the following . . .
	You must comply with all applicable emission limits at all times except during startup periods and shutdown periods at which time you must meet this work practice. You must collect monitoring data during shutdown periods, as specified in §63.10020(a). You must keep records during shutdown periods, as provided in §§63.10032 and 63.10021(h). Any fraction of an hour in which shutdown occurs constitutes a full hour of shutdown. You must provide reports concerning activities and shutdown periods, as specified in §§63.10011(g), 63.10021(i), and 63.10031. Before January 2, 2025, if you elect to use paragraph (2) of the definition of startup in 40 CFR 63.10042, you must report the applicable information in 40 CFR 63.10031(c)(5) concerning shutdown periods as follows: For shutdown periods that occur on or prior to December 31, 2023, in PDF files in the semiannual compliance report; for shutdown periods that occur on or after January 1, 2024, quarterly, in PDF files, according to 40 CFR 63.10031(i). On or after January 2, 2025 you may not use paragraph (2) of the definition of startup in § 63.10042.

! 21. Revise table 4 to subpart UUUUU of part 63 to read as follows:

Table 4 to Subpart UUUUU of Part 63—  
Operating Limits for EGUs

Before July 6, 2027, as stated in §63.9991, you must comply with the

applicable operating limits in table 4. However, on or after July 6, 2027 you may not use PM CPMS for compliance demonstrations, unless it is for an IGCC unit.

If you demonstrate compliance using . . .	You must meet these operating limits . . .
PM CPMS .....	Maintain the 30-boiler operating day rolling average PM CPMS output determined in accordance with the requirements of §63.10023(b)(2) and obtained during the most recent performance test run demonstrating compliance with the filterable PM, total non-mercury HAP metals (total HAP metals, for liquid oil-fired units), or individual non-mercury HAP metals (individual HAP metals including Hg, for liquid oil-fired units) emissions limitation(s).

! 22. Revise table 5 to subpart UUUUU of part 63 to read as follows:

Table 5 to Subpart UUUUU of Part 63—  
Performance Testing Requirements

As stated in § 63.10007, you must comply with the following requirements

for performance testing for existing, new or reconstructed affected sources: <sup>1</sup>

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To conduct a performance test for the following pollutant . . .	Using . . .	You must perform the following activities, as applicable to your input- or output-based emission limit . . .	Using . . . <sup>2</sup>
1. Filterable Particulate matter (PM)	Emissions Testing	a. Select sampling ports location and the number of traverse points	Method 1 at appendix A-1 to part 60 of this chapter.
		b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2A, 2C, 2F, 2G or 2H at appendix A-1 or A-2 to part 60 of this chapter.
		c. Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B at appendix A-2 to part 60 of this chapter, or ANSI/ASME PTC 19.10-1981. <sup>3</sup>
		d. Measure the moisture content of the stack gas	Method 4 at appendix A-3 to part 60 of this chapter.
		e. Measure the filterable PM concentration	Methods 5 and 5I at appendix A-3 to part 60 of this chapter. For positive pressure fabric filters, Method 5D at appendix A-3 to part 60 of this chapter for filterable PM emissions. Note that the Method 5 or 5I front half temperature shall be 160° ±14 °C (320° ±25 °F).
		f. Convert emissions concentration to lb/MMBtu or lb/MWh emissions rates	Method 19 F-factor methodology at appendix A-7 to part 60 of this chapter, or calculate using mass emissions rate and gross output data (see § 63.10007(e)).
	OR	OR	
	PM CEMS	a. Install, certify, operate, and	Performance Specification 11 at appendix B to part 60 of this chapter and Procedure 2 at appendix F to part 60 of this chapter.

		maintain the PM CEMS	
		b. Install, certify, operate, and maintain the diluent gas, flow rate, and/or moisture monitoring systems	Part 75 of this chapter and § 63.10010(a), (b), (c), and (d).
		c. Convert hourly emissions concentrations to 30 boiler operating day rolling average lb/MMBtu or lb/MWh emissions rates	Method 19 F-factor methodology at appendix A-7 to part 60 of this chapter, or calculate using mass emissions rate and gross output data (see § 63.10007(e)).
2. Total or individual non-Hg HAP metals	Emissions Testing	a. Select sampling ports location and the number of traverse points	Method 1 at appendix A-1 to part 60 of this chapter.
		b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2A, 2C, 2F, 2G or 2H at appendix A-1 or A-2 to part 60 of this chapter.
		c. Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B at appendix A-2 to part 60 of this chapter, or ANSI/ASME PTC 19.10-1981. <sup>3</sup>
		d. Measure the moisture content of the stack gas	Method 4 at appendix A-3 to part 60 of this chapter.
		e. Measure the HAP metals emissions concentrations and determine	Method 29 at appendix A-8 to part 60 of this chapter. For liquid oil-fired units, Hg is included in HAP metals and you may use Method 29, Method 30B at appendix A-8 to part 60 of this chapter; for Method 29, you must

		each individual HAP metals emissions concentration, as well as the total filterable HAP metals emissions concentration and total HAP metals emissions concentration	report the front half and back half results separately. When using Method 29, report metals matrix spike and recovery levels.
		f. Convert emissions concentrations (individual HAP metals, total filterable HAP metals, and total HAP metals) to lb/MMBtu or lb/MWh emissions rates	Method 19 F-factor methodology at appendix A-7 to part 60 of this chapter, or calculate using mass emissions rate and gross output data (see § 63.10007(e)).
3. Hydrogen chloride (HCl) and hydrogen fluoride (HF)	Emissions Testing	a. Select sampling ports location and the number of traverse points	Method 1 at appendix A-1 to part 60 of this chapter.
		b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2A, 2C, 2F, 2G or 2H at appendix A-1 or A-2 to part 60 of this chapter.
		c. Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B at appendix A-2 to part 60 of this chapter, or ANSI/ASME PTC 19.10-1981. <sup>3</sup>
		d. Measure the moisture content of the stack gas	Method 4 at appendix A-3 to part 60 of this chapter.
		e. Measure the HCl and HF	Method 26 or Method 26A at appendix A-8 to part 60 of this chapter or Method 320 at

		emissions concentrations	appendix A to part 63 of this chapter or ASTM D6348-03 Reapproved 2010 <sup>3</sup> with
			(1) the following conditions when using ASTM D6348-03 Reapproved 2010:
			(A) The test plan preparation and implementation in the Annexes to ASTM D6348-03 Reapproved 2010, Sections A1 through A8 are mandatory;
			(B) For ASTM D6348-03 Reapproved 2010 Annex A5 (Analyte Spiking Technique), the percent (%) R must be determined for each target analyte (see Equation A5.5);
			(C) For the ASTM D6348-03 Reapproved 2010 test data to be acceptable for a target analyte, %R must be $70\% \geq R \leq 130\%$ ; and
			(D) The %R value for each compound must be reported in the test report and all field measurements corrected with the calculated %R value for that compound using the following equation: $\text{Reported Result} = \frac{\text{Measured Concentration in Stack}}{\%R} \times 100$
			(2) spiking levels nominally no greater than two times the level corresponding to the applicable emission limit.
			Method 26A must be used if there are entrained water droplets in the exhaust stream.
		f. Convert emissions concentration to lb/MMBtu or lb/MWh emissions rates	Method 19 F-factor methodology at appendix A-7 to part 60 of this chapter, or calculate using mass emissions rate and gross output data (see § 63.10007(e)).
	OR	OR	
	HCl and/or HF CEMS	a. Install, certify, operate, and maintain the HCl or HF CEMS	Appendix B of this subpart.
		b. Install, certify, operate, and maintain the diluent gas, flow rate, and/or moisture	Part 75 of this chapter and § 63.10010(a), (b), (c), and (d).

		monitoring systems	
		c. Convert hourly emissions concentrations to 30 boiler operating day rolling average lb/MMBtu or lb/MWh emissions rates	Method 19 F-factor methodology at appendix A-7 to part 60 of this chapter, or calculate using mass emissions rate and gross output data (see § 63.10007(e)).
4. Mercury (Hg)	Emissions Testing	a. Select sampling ports location and the number of traverse points	Method 1 at appendix A-1 to part 60 of this chapter or Method 30B at Appendix A-8 for Method 30B point selection.
		b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2A, 2C, 2F, 2G or 2H at appendix A-1 or A-2 to part 60 of this chapter.
		c. Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B at appendix A-1 to part 60 of this chapter, or ANSI/ASME PTC 19.10-1981. <sup>3</sup>
		d. Measure the moisture content of the stack gas	Method 4 at appendix A-3 to part 60 of this chapter.
		e. Measure the Hg emission concentration	Method 30B at appendix A-8 to part 60 of this chapter, ASTM D6784, <sup>3</sup> or Method 29 at appendix A-8 to part 60 of this chapter; for Method 29, you must report the front half and back half results separately.
		f. Convert emissions concentration to lb/TBtu or lb/GWh emission rates	Method 19 F-factor methodology at appendix A-7 to part 60 of this chapter, or calculate using mass emissions rate and gross output data (see § 63.10007(e)).
	OR	OR	
	Hg CEMS	a. Install, certify, operate, and	Sections 3.2.1 and 5.1 of appendix A of this subpart.



		maintain the CEMS	
		b. Install, certify, operate, and maintain the diluent gas, flow rate, and/or moisture monitoring systems	Part 75 of this chapter and § 63.10010(a), (b), (c), and (d).
		c. Convert hourly emissions concentrations to 30 boiler operating day rolling average lb/TBtu or lb/GWh emissions rates	Section 6 of appendix A to this subpart.
	OR	OR	
	Sorbent trap monitoring system	a. Install, certify, operate, and maintain the sorbent trap monitoring system	Sections 3.2.2 and 5.2 of appendix A to this subpart.
		b. Install, operate, and maintain the diluent gas, flow rate, and/or moisture monitoring systems	Part 75 of this chapter and § 63.10010(a), (b), (c), and (d).
		c. Convert emissions concentrations to 30 boiler operating day rolling average lb/TBtu or lb/GWh	Section 6 of appendix A to this subpart.

		emissions rates	
	OR	OR	
	LEE testing	a. Select sampling ports location and the number of traverse points	Single point located at the 10% centroidal area of the duct at a port location per Method 1 at appendix A-1 to part 60 of this chapter or Method 30B at Appendix A-8 for Method 30B point selection.
		b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2A, 2C, 2F, 2G, or 2H at appendix A-1 or A-2 to part 60 of this chapter or flow monitoring system certified per appendix A of this subpart.
		c. Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B at appendix A-1 to part 60 of this chapter, or ANSI/ASME PTC 19.10-1981, <sup>3</sup> or diluent gas monitoring systems certified according to part 75 of this chapter.
		d. Measure the moisture content of the stack gas	Method 4 at appendix A-3 to part 60 of this chapter, or moisture monitoring systems certified according to part 75 of this chapter.
		e. Measure the Hg emission concentration	Method 30B at appendix A-8 to part 60 of this chapter; perform a 30 operating day test, with a maximum of 10 operating days per run ( <i>i.e.</i> , per pair of sorbent traps) or sorbent trap monitoring system or Hg CEMS certified per appendix A of this subpart.
		f. Convert emissions concentrations from the LEE test to lb/TBtu or lb/GWh emissions rates	Method 19 F-factor methodology at appendix A-7 to part 60 of this chapter, or calculate using mass emissions rate and gross output data (see § 63.10007(e)).
		g. Convert average lb/TBtu or lb/GWh Hg emission rate to lb/year, if you are attempting to meet the 29.0 lb/year threshold	Potential maximum annual heat input in TBtu or potential maximum electricity generated in GWh.

5. Sulfur dioxide (SO <sub>2</sub> )	SO <sub>2</sub> CEMS	a. Install, certify, operate, and maintain the CEMS	Part 75 of this chapter and § 63.10010(a) and (f).
		b. Install, operate, and maintain the diluent gas, flow rate, and/or moisture monitoring systems	Part 75 of this chapter and § 63.10010(a), (b), (c), and (d).
		c. Convert hourly emissions concentrations to 30 boiler operating day rolling average lb/MMBtu or lb/MWh emissions rates	Method 19 F-factor methodology at appendix A-7 to part 60 of this chapter, or calculate using mass emissions rate and gross output data (see § 63.10007(e)).

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<sup>1</sup> Regarding emissions data collected during periods of startup or shutdown, see §§ 63.10020(b) and (c) and 63.10021(h). With the exception of IGCC units, on or after July 6, 2027: You may not use quarterly performance emissions testing to demonstrate compliance with the filterable PM emissions standards and for existing EGUs you may not choose to comply with the total or individual HAP metals emissions

limits unless you request and receive approval for the use of a HAP metals CMS under § 63.7(f).

<sup>2</sup> See tables 1 and 2 to this subpart for required sample volumes and/or sampling run times.

<sup>3</sup> Incorporated by reference, see § 63.14.

! 23. Revise table 6 to subpart UUUUU of part 63 to read as follows:

Table 6 to Subpart UUUUU of Part 63—Establishing PM CPMS Operating Limits

Before July 6, 2027, as stated in § 63.10007, you must comply with the following requirements for establishing operating limits in table 6. However, on or after July 6, 2027 you may not use PM CPMS for compliance demonstrations, unless it is for an IGCC unit.

If you have an applicable emission limit for . . .	And you choose to establish PM CPMS operating limits, you must . . .	And . . .	Using . . .	According to the following procedures . . .
Filterable Particulate matter (PM), total non-mercury HAP metals, individual non-mercury HAP metals, total HAP metals, or individual HAP metals for an EGU.	Install, certify, maintain, and operate a PM CPMS for monitoring emissions discharged to the atmosphere according to § 63.10010(h)(1).	Establish a site-specific operating limit in units of PM CPMS output signal (e.g., milliamps, mg•acm, or other raw signal).	Data from the PM CPMS and the PM or HAP metals performance tests.	<ol style="list-style-type: none"> <li>1. Collect PM CPMS output data during the entire period of the performance tests.</li> <li>2. Record the average hourly PM CPMS output for each test run in the performance test.</li> <li>3. Determine the PM CPMS operating limit in accordance with the requirements of § 63.10023(b)(2) from data obtained during the performance test demonstrating compliance with the filterable PM or HAP metals emissions limitations.</li> </ol>

1 24. Revise table 7 to subpart UUUUU of part 63 to read as follows: Table 7 to Subpart UUUUU of Part 63— Demonstrating Continuous Compliance emission limitations for affected sources according to the following:

As stated in § 63.10021, you must show continuous compliance with the

If you use one of the following to meet applicable emissions limits, operating limits, or work practice standards . . .	You demonstrate continuous compliance by . . .
1. CEMS to measure filterable PM, SO <sub>2</sub> , HCl, HF, or Hg emissions, or using a sorbent trap monitoring system to measure Hg.	Calculating the 30- (or 90-) boiler operating day rolling arithmetic average emissions rate in units of the applicable emissions standard basis at the end of each boiler operating day using all of the quality assured hourly average CEMS or sorbent trap data for the previous 30- (or 90-) boiler operating days, excluding data recorded during periods of startup or shutdown.
2. PM CPMS to measure compliance with a parametric operating limit. (On or after July 6, 2027 you may not use PM CPMS for compliance demonstrations, unless it is for an IGCC unit.)	Calculating the 30- (or 90-) boiler operating day rolling arithmetic average of all of the quality assured hourly average PM CPMS output data (e.g., milliamps, PM concentration, raw data signal) collected for all operating hours for the previous 30- (or 90-) boiler operating days, excluding data recorded during periods of startup or shutdown.
3. Site-specific monitoring using CMS for liquid oil-fired EGUs for HCl and HF emission limit monitoring.	If applicable, by conducting the monitoring in accordance with an approved site-specific monitoring plan.
4. Quarterly performance testing for coal-fired, solid oil derived fired, or liquid oil-fired EGUs to measure compliance with one or more non-PM (or its alternative emission limits) applicable emissions limit in Table 1 or 2, or PM (or its alternative emission limits) applicable emissions limit in Table 2. (On or after July 6, 2027 you may not use quarterly performance testing for filterable PM compliance demonstrations, unless it is for an IGCC unit.)	Calculating the results of the testing in units of the applicable emissions standard.
5. Conducting periodic performance tune-ups of your EGU(s) .....	Conducting periodic performance tune-ups of your EGU(s), as specified in §63.10021(e).
6. Work practice standards for coal-fired, liquid oil-fired, or solid oil-derived fuel-fired EGUs during startup.	Operating in accordance with Table 3.
7. Work practice standards for coal-fired, liquid oil-fired, or solid oil-derived fuel-fired EGUs during shutdown.	Operating in accordance with Table 3.

1 25. Revise table 8 to subpart UUUUU of part 63 to read as follows: Table 8 to Subpart UUUUU of Part 63— Reporting Requirements requirements, as they apply to your compliance strategy]

[In accordance with 40 CFR 63.10031, you must meet the following reporting

You must submit the following reports . . .

1. The electronic reports required under 40 CFR 63.10031 (a)(1), if you continuously monitor Hg emissions.
2. The electronic reports required under 40 CFR 63.10031 (a)(2), if you continuously monitor HCl and/or HF emissions.  
Where applicable, these reports are due no later than 30 days after the end of each calendar quarter.
3. The electronic reports required under 40 CFR 63.10031(a)(3), if you continuously monitor PM emissions.  
Reporting of hourly PM emissions data using ECMPS shall begin with the first operating hour after: January 1, 2024, or the hour of completion of the initial PM CEMS correlation test, whichever is later.  
Where applicable, these reports are due no later than 30 days after the end of each calendar quarter.
4. The electronic reports required under 40 CFR 63.10031(a)(4), if you elect to use a PM CPMS (on or after July 6, 2027 you may not use PM CPMS for compliance demonstrations, unless it is for an IGCC unit).  
Reporting of hourly PM CPMS response data using ECMPS shall begin with the first operating hour after January 1, 2024, or the first operating hour after completion of the initial performance stack test that establishes the operating limit for the PM CPMS, whichever is later.  
Where applicable, these reports are due no later than 30 days after the end of each calendar quarter.
5. The electronic reports required under 40 CFR 63.10031(a)(5), if you continuously monitor SO<sub>2</sub> emissions.  
Where applicable, these reports are due no later than 30 days after the end of each calendar quarter.
6. PDF reports for all performance stack tests completed prior to January 1, 2024 (including 30- or 90-boiler operating day Hg LEE test reports and PM test reports to set operating limits for PM CPMS), according to the introductory text of 40 CFR 63.10031(f) and 40 CFR 63.10031(f)(6).  
For each test, submit the PDF report no later than 60 days after the date on which testing is completed.  
For a PM test that is used to set an operating limit for a PM CPMS, the report must also include the information in 40 CFR 63.10023(b)(2)(vi).  
For each performance stack test completed on or after January 1, 2024, submit the test results in the relevant quarterly compliance report under 40 CFR 63.10031(g), together with the applicable reference method information in sections 17 through 31 of appendix E to this subpart.
7. PDF reports for all RATAs of Hg, HCl, HF, and/or SO<sub>2</sub> monitoring systems completed prior to January 1, 2024, and for correlation tests, RRAs and/or RCAs of PM CEMS completed prior to January 1, 2024, according to 40 CFR 63.10031(f)(1) and (6).  
For each test, submit the PDF report no later than 60 days after the date on which testing is completed.  
For each SO<sub>2</sub> or Hg system RATA completed on or after January 1, 2024, submit the electronic test summary required by appendix A to this subpart or part 75 of this chapter (as applicable) together with the applicable reference method information in sections 17 through 30 of appendix E to this subpart, either prior to or concurrent with the relevant quarterly emissions report.

You must submit the following reports . . .

- For each HCl or HF system RATA, and for each correlation test, RRA, and RCA of a PM CEMS completed on or after January 1, 2024, submit the electronic test summary in accordance with section 11.4 of appendix B to this subpart or section 7.2.4 of appendix C to this part, as applicable, together with the applicable reference method information in sections 17 through 30 of appendix E to this subpart.
- 8. Quarterly reports, in PDF files, that include all 30-boiler operating day rolling averages in the reporting period derived from your PM CEMS, approved HAP metals CMS, and/or PM CPMS (on or after July 6, 2027 you may not use PM CPMS, unless it is for an IGCC unit), according to 40 CFR 63.10031(f)(2) and (6). These reports are due no later than 60 days after the end of each calendar quarter.
  - The final quarterly rolling averages report in PDF files shall cover the fourth calendar quarter of 2023.
  - Starting with the first quarter of 2024, you must report all 30-boiler operating day rolling averages for PM CEMS, approved HAP metals CMS, PM CPMS, Hg CEMS, Hg sorbent trap systems, HCl CEMS, HF CEMS, and/or SO<sub>2</sub> CEMS (or 90-boiler operating day rolling averages for Hg systems), in XML format, in the quarterly compliance reports required under 40 CFR 63.10031(g).
  - If your EGU or common stack is in an averaging plan, each quarterly compliance report must identify the EGUs in the plan and include all of the 30- or 90-group boiler operating day WAERs for the averaging group.
  - The quarterly compliance reports must be submitted no later than 60 days after the end of each calendar quarter.
- 9. The semiannual compliance reports described in 40 CFR 63.10031(c) and (d), in PDF files, according to 40 CFR 63.10031(f)(4) and (6). The due dates for these reports are specified in 40 CFR 63.10031(b).
  - The final semiannual compliance report shall cover the period from July 1, 2023, through December 31, 2023.
- 10. Notifications of compliance status, in PDF files, according to 40 CFR 63.10031(f)(4) and (6) until December 31, 2023, and according to 40 CFR 63.10031(h) thereafter.
- 11. Quarterly electronic compliance reports, in accordance with 40 CFR 63.10031(g), starting with a report for the first calendar quarter of 2024. The reports must be in XML format and must include the applicable data elements in sections 2 through 13 of appendix E to this subpart.
  - These reports are due no later than 60 days after the end of each calendar quarter.
- 12. Quarterly reports, in PDF files, that include the applicable information in 40 CFR 63.10031(c)(5)(ii) and 40 CFR 63.10020(e) pertaining to startup and shutdown events, starting with a report for the first calendar quarter of 2024, if you have elected to use paragraph 2 of the definition of startup in 40 CFR 63.10042 (see 40 CFR 63.10031(i)). On or after January 2, 2025 you may not use paragraph 2 of the definition of startup in 40 CFR 63.10042.
  - These PDF reports shall be submitted no later than 60 days after the end of each calendar quarter, along with the quarterly compliance reports required under 40 CFR 63.10031(g).
- 13. A test report for the PS 11 correlation test of your PM CEMS, in accordance with 40 CFR 63.10031(j).
  - If, prior to November 9, 2020, you have begun using a certified PM CEMS to demonstrate compliance with this subpart, use the ECMPMS Client Tool to submit the report, in a PDF file, no later than 60 days after that date.
  - For correlation tests completed on or after November 9, 2020, but prior to January 1, 2024, submit the report, in a PDF file, no later than 60 days after the date on which the test is completed.
  - For correlation tests completed on or after January 1, 2024, submit the test results electronically, according to section 7.2.4 of appendix C to this subpart, together with the applicable reference method data in sections 17 through 31 of appendix E to this subpart.
- 14. Quarterly reports that include the QA-QC activities for your PM CPMS (on or after July 6, 2027 you may not use PM CPMS, unless it is for an IGCC unit) or approved HAP metals CMS (as applicable), in PDF files, according to 40 CFR 63.10031(k).
  - The first report shall cover the first calendar quarter of 2024, if the PM CPMS or HAP metals CMS is in use during that quarter. Otherwise, reporting begins with the first calendar quarter in which the PM CPMS or HAP metals CMS is used to demonstrate compliance.
  - These reports are due no later than 60 days after the end of each calendar quarter.

- ! 26. In appendix C to subpart UUUUU:
  - ! a. Revise sections 1.2, 1.3, 4.1, and 4.1.1.
  - ! b. Add sections 4.1.1.1 and 4.2.3.
  - ! c. Revise sections 5.1.1, 5.1.4, and the section heading for section 6.

The revisions and additions read as follows:

Appendix C to Subpart UUUUU of Part 63—PM Monitoring Provisions

1. General Provisions

\* \* \* \* \*

1.2 Initial Certification and Recertification Procedures. You, as the owner or operator of an affected EGU that uses a PM CEMS to demonstrate compliance with a filterable PM emissions limit in Table 1 or 2 to this subpart must certify and, if applicable, recertify the CEMS according to Performance Specification 11 (PS-11) in appendix B to part 60 of this chapter. Beginning on July 6, 2027, when determining if your PM CEMS meets the acceptance criteria in PS-11, the value of 0.015 lb/MMBtu is to be used in place of the applicable emission standard, or emission limit, in the calculations.

1.3 Quality Assurance and Quality Control Requirements. You must meet the applicable quality assurance requirements of Procedure 2 in appendix F to part 60 of this

chapter. Beginning on July 6, 2027, when determining if your PM CEMS meets the acceptance criteria in Procedure 2, the value of 0.015 lb/MMBtu is to be used in place of the applicable emission standard, or emission limit, in the calculations.

\* \* \* \* \*

4. Certification and Recertification Requirements

4.1 Certification Requirements. You must certify your PM CEMS and the other CMS used to determine compliance with the applicable emissions standard before the PM CEMS can be used to provide data under this subpart. However, if you have developed and are using a correlation curve, you may continue to use that curve, provided it continues to meet the acceptance criteria in PS-11 and Procedure 2 as discussed below. Redundant backup monitoring systems (if used) are subject to the same certification requirements as the primary systems.

4.1.1 PM CEMS. You must certify your PM CEMS according to PS-11 in appendix B to part 60 of this chapter. A PM CEMS that has been installed and certified according to PS-11 as a result of another state or federal regulatory requirement or consent decree prior to the effective date of this subpart shall be considered certified for this subpart if you can demonstrate that your PM CEMS meets

the acceptance criteria in PS-11 and Procedure 2 in appendix F to part 60 of this chapter.

4.1.1.1 Beginning on July 6, 2027, when determining if your PM CEMS meets the acceptance criteria in PS-11 and Procedure 2 the value of 0.015 lb/MMBtu is to be used in place of the applicable emission standard, or emission limit, in the calculations.

\* \* \* \* \*

4.2 Recertification.

\* \* \* \* \*

4.2.3 Beginning on July 6, 2027 you must use the value of 0.015 lb/MMBtu in place of the applicable emission standard, or emission limit, in the calculations when determining if your PM CEMS meets the acceptance criteria in PS-11 and Procedure 2.

\* \* \* \* \*

5. Ongoing Quality Assurance (QA) and Data Validation

\* \* \* \* \*

5.1.1 Required QA Tests. Following initial certification, you must conduct periodic QA testing of each primary and (if applicable) redundant backup PM CEMS. The required QA tests and the criteria that must be met are found in Procedure 2 of appendix F to part 60 of this chapter

(Procedure 2). Except as otherwise provided in section 5.1.2 of this appendix, the QA tests shall be done at the frequency specified in Procedure 2.

\* \* \* \* \*

5.1.4 RCA and RRA Acceptability. The results of your RRA or RCA are considered acceptable provided that the criteria in section 10.4(5) of Procedure 2 in appendix F to part 60 of this chapter are met for an RCA or section 10.4(6) of Procedure 2 in appendix F to part 60 of this chapter are met for an RRA. However, beginning on July 6, 2027 a

value of 0.015 lb/MMBtu is to be used in place of the applicable emission standard, or emission limit, when determining whether the RCA and RRA are acceptable.

\* \* \* \* \*

6. Data Reduction and Calculations

\* \* \* \* \*

! 27. Appendix D to subpart UUUUU of part 63 is amended by adding introductory text to the appendix to read as follows:

Appendix D to Subpart UUUUU of Part 63—PM CPMS Monitoring Provisions

On or after July 6, 2027 you may not use PM CPMS for compliance demonstrations with the applicable filterable PM emissions limits, unless it is for an IGCC unit.

\* \* \* \* \*

[FR Doc. 2024-09148 Filed 5-6-24; 8:45 am]

BILLING CODE 6560-50-P

## Declaration of Frank H. Chang

I, Frank H. Chang, declare as follows:

1. I am over the age of 18, of sound mind, and otherwise competent to sign this declaration.

2. I am an attorney at the law firm Consovoy McCarthy PLLC and counsel for Petitioner State of North Dakota.

3. Attached to the declaration is a true and accurate copy of a PowerPoint presentation (Bates stamp ED\_006414\_00000550-001-ED\_006414\_00000550-011)—entitled “Power Sector Strategy: Climate, Public Health, Environmental Justice, Briefing for Gina McCarthy and Ali Zaidi (Feb. 4, 2021)” —that EPA produced in response to a FOIA request submitted by Energy Policy Advocates, a nonprofit organization focused on educating the public about energy and environmental policies.

4. I obtained the PowerPoint slides from Energy Policy Advocates’ litigation counsel, Mr. Christopher C. Horner.

5. According to EPA, these powerpoint slides were created by Joe Goffman, then-Principal Deputy Assistant Administrator of EPA’s Office of Air and Radiation, for a briefing with Gina McCarthy (then-National Climate Advisor) and Ali Zaidi (then Deputy National Climate Advisor) in the White House Office of Domestic Climate Policy. *See* Decl. of John Shoaff ¶9, *Energy Pol’y Advocs. v. EPA*, No. 1:22-cv-00298-TJK (D.D.C. Jan 27, 2023), ECF 16-3.

6. EPA heavily redacted these slides by asserting the deliberative-process privilege under Exemption 5. In order to justify redacting these PowerPoint slides, however, EPA had to explain what the redacted portions are about in litigation before the U.S. District Court for the District of Columbia. In doing so, EPA confirmed that the slides were used “to brief and consult with the White House on potential policy options for regulating power plant emissions.” EPA-MSJ-Br. at 12, *Energy Pol’y Advoc. v. EPA*, No. 1:22-cv-00298-TJK (D.D.C. Jan. 27, 2023), ECF 16-1.

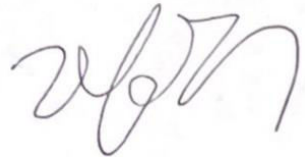
7. EPA explained that one of the slides presented to the White House Office of Domestic Climate Policy discusses the Biden Administration’s strategies for using the “Air Toxics Standards (e.g., MATS Rule)” to reduce power plant emissions. *See* Decl. of John Shoaff ¶27, *Energy Pol’y Advoc. v. EPA*, No. 1:22-cv-00298-TJK (D.D.C. Jan. 27, 2023), ECF 16-3 (“Slide 6 (page 6) of the PowerPoint identifies potential strategies for reducing emissions through Air Toxics Standards, including potential future rulemakings and other regulatory actions under the Air Toxics program...”) (referencing ED\_006414\_00000550-006).

8. EPA further explained that other slides appearing in that powerpoint presentation to the White House Office of Domestic Climate Policy discuss other regulatory tools—including the nonattainment provisions under the Clean Air Act (CAA), Section 111(d) of the CAA, Section 111(b) of the CAA, and the Regional Haze program, etc.—are also about “regulating power sector emissions.” Decl. of John



Shoaff ¶¶30, 33, 36, *Energy Pol'y Advocs. v. EPA*, No. 1:22-cv-00298-TJK (D.D.C. Jan. 27, 2023), ECF 16-3.

9. Pursuant to 28 U.S.C. §1746, I declare under penalty of perjury that the foregoing is true and correct.



Executed on May 24, 2024

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Frank H. Chang

# ATTACHMENT

# Power Sector Strategy: Climate, Public Health, Environmental Justice

## The Building Blocks

Briefing for Gina McCarthy and Ali Zaidi

February 4, 2021

## EPA Has Responsibility Across Multiple Media to Address Environmental Effects of the Power Sector

- Air
  - Toxics
  - NAAQS Pollutants
  - GHGs
  - Regional Haze
- Water
  - Effluent Limitation Guidelines
  - Cooling water requirements
- Solid Waste
  - Coal Combustion Residuals

## Key Considerations - Timing

- Timing

### **Ex. 5 Deliberative Process (DP)**

- Air Toxics Standards (Flagged in EO)

### **Ex. 5 Deliberative Process (DP)**

## Key Constraints - Geographic Scope

- Some authorities apply to all units across the country while others only apply to a subset of units
  - National Rules Include
    - Air Toxics Standards
    - GHG Standards
    - Water Standards
    - Coal Combustion Residual Standards
  - Authorities that would cover a subset of units include
    - Non-attainment provisions (transport provisions would generally cover a greater number of units than provisions for non-attainment areas)
    - Regional Haze

# Effluent Limitation Guidelines and Coal Combustion Residuals

## **Ex. 5 Deliberative Process (DP)**

Air Toxics Standards (e.g., MATS Rule)

**Ex. 5 Deliberative Process (DP)**



# Non-attainment Provisions

## **Ex. 5 Deliberative Process (DP)**

## 111(d) CO2 Standards

- National in scope, but requires two step process (EPA guidelines followed by State Plans)

### **Ex. 5 Deliberative Process (DP)**

# Regional Haze

## **Ex. 5 Deliberative Process (DP)**

# Next Steps for Coal-Fired Units

## **Ex. 5 Deliberative Process (DP)**

# New Natural Gas Units and 111(b)

## **Ex. 5 Deliberative Process (DP)**

**IN THE UNITED STATES COURT OF APPEALS  
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

STATE OF NORTH DAKOTA, STATE  
OF WEST VIRGINIA, STATE OF  
ALASKA, STATE OF ARKANSAS,  
STATE OF GEORGIA, STATE OF  
IDAHO, STATE OF INDIANA, STATE  
OF IOWA, STATE OF KANSAS,  
COMMONWEALTH OF KENTUCKY,  
STATE OF LOUISIANA, STATE OF  
MISSISSIPPI, STATE OF MISSOURI,  
STATE OF MONTANA, STATE OF  
NEBRASKA, STATE OF OKLAHOMA,  
STATE OF SOUTH CAROLINA,  
STATE OF SOUTH DAKOTA, STATE  
OF TENNESSEE, STATE OF TEXAS,  
STATE OF UTAH, COMMONWEALTH  
OF VIRGINIA, AND STATE OF  
WYOMING,

*Petitioners,*

v.

U.S. ENVIRONMENTAL PROTECTION  
AGENCY,

*Respondent.*

Case No. 24-1119

**DECLARATION OF JULIE FEDORCHAK  
IN SUPPORT OF PETITIONERS' MOTION TO STAY FINAL RULE**

I, Julie Fedorchak, hereby declare and state under penalty of perjury that the following is true and correct to the best of my knowledge and is based on my personal knowledge or information available to me in the performance of my official duties: