ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[EPA–HQ–OAR–2002–0085, EPA–HQ–OAR–2003–0051; FRL–8471–02–OAR]

RIN 2060–AV19

National Emission Standards for Hazardous Air Pollutants for Coke Ovens: Pushing, Quenching, and Battery Stacks, and Coke Oven Batteries; Residual Risk and Technology Review, and Periodic Technology Review

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action finalizes the residual risk and technology review conducted for the National Emissions Standards for Hazardous Air Pollutants (NESHAP) for the Coke Ovens: Pushing, Quenching, and Battery Stacks (PQBS) source category and the periodic technology review for the Coke Oven Batteries (COB) source category NESHAP. The EPA is finalizing a determination that risks due to emissions of hazardous air pollutants (HAP) from the PQBS source category are acceptable and that the current NESHAP provides an ample margin of safety to protect public health.

DATES: This final rule is effective on July 5, 2024, except for amendatory instruction 3, which is effective July 15, 2024. The incorporation by reference (IBR) of certain publications listed in the rule is approved by the Director of the Federal Register beginning July 5, 2024. The IBR of certain other material listed in the rule was approved by the Director of the Federal Register as of July 13, 2005.

ADDRESSES: The U.S. Environmental Protection Agency (EPA) has established a docket for this action under Docket ID Nos. EPA–HQ–OAR–2002–0085 for the Coke Ovens: Pushing, Quenching, and Battery Stacks (PQBS) source category and EPA–HQ–OAR–2003–0051 for the Coke Oven Batteries (COB) source category. All documents in the docket are listed on the *https://www.regulations.gov/* website. Although listed, some information is not publicly available, *e.g.,* Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through *https://www.regulations.gov/,* or in hard copy at the EPA Docket Center, WJC West Building, Room Number 3334, 1301 Constitution Ave. NW, Washington, DC. The Public Reading Room hours of operation are 8:30 a.m. to 4:30 p.m. Eastern Standard Time, Monday through Friday. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the EPA Docket Center is (202) 566–1742.

FOR FURTHER INFORMATION CONTACT: For questions about this final action, contact U.S. EPA, Attn: Donna Lee Jones, Sector Policies and Programs Division (MD–243–02), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711; telephone number: (919) 541–5251; email address: *jones.donnalee@epa.gov.* For specific information regarding the risk modeling methodology, contact U.S. EPA, Attn: Michael Moeller, Health and Environmental Impacts Division (C539–02), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711; telephone number: (919) 541–2766; email address: *moeller.michael@epa.gov.*

SUPPLEMENTARY INFORMATION: Under the technology review for the PQBS NESHAP, we are finalizing new maximum achievable control technology standards for unregulated HAP or sources of HAP and a 20 percent opacity limit for bypass/waste heat stacks at heat and/or nonrecovery (HNR) facilities. Under the technology review for the COB NESHAP, we are lowering the limits for leaking doors, lids, and offtakes at by-product (ByP) facilities to reflect improvements in practices, processes, or technology, a requirement for fenceline monitoring for benzene (as a surrogate for coke oven emissions) with a requirement to conduct a root cause analysis and corrective action upon exceeding an action level of benzene; a revised equation to estimate emissions from leaks of ByP oven doors; a requirement of zero leaking oven doors at HNR facilities and pressure monitoring in either oven or common tunnels. We are finalizing the removal of exemptions for periods of startup, shutdown, and malfunction consistent with a 2008 court decision, clarifying that the standards apply at all times; and the addition of electronic reporting for performance test results and compliance reports.

Preamble acronyms and abbreviations. We use multiple acronyms and terms in this preamble. While this list may not be exhaustive, to ease the reading of this preamble and for reference purposes, the EPA defines the following terms and acronyms here:

1–BP 1-bromopropane
ACI activated carbon injection
ANSI American National Standards Institute
APCD air pollution control device
B/W bypass/waste heat
BDL below detection limit
BTF beyond-the-floor
ByP coke production process with by-product chemical recovery
CAA Clean Air Act
CBI confidential business information
CBRP coke by-product chemical recovery plant
CDX Central Data Exchange
CEDRI Compliance and Emissions Data Reporting Interface
CFR Code of Federal Regulations
COB coke oven batteries
CE Cost Effectiveness
COE coke oven emissions
CRA Congressional Review Act
DCOT digital camera opacity technique
D/F dioxin and furans
EAV equivalent annualized value
EDL estimated level of detection
EDT Eastern Daylight Time
EIA economic impact analysis
EMPC estimated maximum potential concentration
EPA Environmental Protection Agency
ERPG emergency response planning guideline
ERT Electronic Reporting Tool
FR Federal Register
FTIR Fourier Transform Infrared Spectroscopy
gr/dscf grains per dry standard cubic feet
HAP hazardous air pollutants(s)
HCl hydrochloric acid
HCN hydrogen cyanide
HEM human exposure model
HF hydrogen fluoride
HNR heat and nonrecovery (i.e., no chemical recovery), or nonrecovery with no heat recovery
HQ hazard quotient
HRSG heat recovery steam generator
IBR incorporation by reference
ICR information collection request
km kilometer
LAER lowest achievable emissions rate
lb/ton pounds per ton
LDAR leak detection and repair
LEAN Louisiana Environmental Action Network
MACT maximum achievable control technology
MIR maximum individual risk
NA not applicable
NAICS North American Industry Classification System
ND number of doors
NESHAP national emission standards for hazardous air pollutants
NSPS New Source Performance Standards
NTTAA National Technology Transfer and Advancement Act
O2 oxygen dioxide
OAQPS Office of Air Quality Planning and Standards
OMB Office of Management and Budget

OP Office of Policy
PAH polycyclic aromatic hydrocarbons
PDF portable document format
PLD percent leaking doors
PLD_{bench} percent leaking doors from the bench
$PLD_{bench-only}$ percent leaking doors from the bench only
PLD_{yard} percent leaking doors from the yard
PM particulate matter
PRA Paperwork Reduction Act
ppbv parts per billion by volume
ppbw parts per billion by weight
ppmv parts per million by volume
ppmw parts per million by weight
PQBS pushing, quenching, and battery stacks
RCACA root cause analysis and corrective action
REL reference exposure limit
RFA Regulatory Flexibility Act
RIN Regulatory Information Number
RTR risk and technology review
SO_2 sulfur dioxide
SSM startup, shutdown, and malfunction
SSMP site-specific monitoring plans
TBD to be determined
TOSHI target organ-specific hazard index
tpy tons per year
UMRA Unfunded Mandates Reform Act
UPL upper prediction limit
$\mu g/m^3$ microgram per cubic meter
URE unit risk estimate
U.S. United States
VCS voluntary consensus standards
VE visible emissions
VOC volatile organic compound
VOHAP volatile organic HAP
WAS wet alkaline scrubber

Background information. On August 16, 2023, the EPA proposed revisions to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Pushing, Quenching, and Battery Stacks (PQBS) based on our risk and technology review (RTR), and for the Coke Oven Batteries (COB) NESHAP based on our technology review. In this action, we are finalizing decisions and revisions for the rules. We summarize some of the more significant comments we timely received regarding the proposed rule and provide our responses in this preamble. A summary of all other public comments on the proposal and the EPA's responses to those comments is available in the document, *Summary of Public Comments and Responses for Coke Ovens: Pushing, Quenching, and Battery Stacks Residual Risk and Technology Review, and Coke Oven Batteries Periodic Technology Review,*[1] hereafter referred to as the ''*Response to Comment*'' document, which is available in the dockets for this final action (Docket ID No's. EPA–HQ–OAR–2002–0085 and EPA–HQ–OAR–2003–0051). A ''track changes'' or ''redline strikeout'' version of the regulatory language that incorporates the changes in this action is available in the dockets.

Organization of this document. The information in this preamble is organized as follows:

I. General Information

A. Executive Summary

1. Purpose of the Regulatory Action

The Environmental Protection Agency (EPA) is finalizing amendments to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for the Coke Ovens: Pushing, Quenching, and Battery Stacks (PQBS) source category and NESHAP for the Coke Oven Batteries (COB) source category. The purpose of this final action is to fulfill the EPA's statutory obligations pursuant to Clean Air Act (CAA) sections 112(d)(2), (d)(3) and (d)(6) and improve the emissions standards for the COB and PQBS source categories based on information regarding developments in practices, processes, and control technologies (''technology review'').

In addition, this action fulfills the EPA's statutory obligations pursuant to CAA section 112(f)(2) to evaluate the

[1] *Summary of Public Comments and Responses for Coke Ovens: Pushing, Quenching, and Battery Stacks Residual Risk and Technology Review, and Coke Oven Batteries Periodic Technology Review.* U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Sector Policies and Programs Division (D243–02), Research Triangle Park, North Carolina. May 1, 2024.

maximum achievable control technology (MACT) standards for the PQBS source category to determine whether additional standards are required to address any remaining risk associated with hazardous air pollutant (HAP) emissions from this PQBS source category (''residual risk review'').

2. Summary of the Major Provisions of This Regulatory Action

Under the residual risk review for the PQBS NESHAP pursuant to CAA section 112(f)(2), the EPA estimated the inhalation maximum individual risk (MIR) for cancer (based on current actual emissions levels) due to HAP emissions from PQBS sources is 9-in-1 million, and the MIR based on allowable emissions was slightly higher (10-in-1 million). All estimated noncancer risks are below a level of concern. Based on these risk results and subsequent evaluation of potential controls (*e.g.,* costs, feasibility and impacts) that could be applied to reduce these risks even further, we are promulgating a determination that risks due to HAP emissions from the PQBS source category are acceptable and the PQBS NESHAP provides an ample margin of safety to protect public health. Therefore, we are not finalizing amendments under CAA section 112(f)(2).

Under the technology review for the PQBS NESHAP pursuant to CAA section 112(d)(6), and consistent with the Louisiana Environmental Action Network (LEAN*)* court decision,[2] the EPA is finalizing MACT standards for previously unregulated HAP emissions pursuant to CAA sections 112(d)(2) and (3), and 112(h). The EPA identified unregulated HAP and emissions source combinations from PQBS sources,as follows: acid gases (AG) (*i.e.,* the sum of hydrochloric acid and hydrofloric acid), dioxin and furans (D/F), formaldehyde, hydrogen cyanide (HCN), mercury (Hg), polycyclic aromatic hydrocarbons (PAH), and volatile organic HAP (VOHAP) from pushing operations; AG, D/F, HCN, Hg, PAH, particulate matter (PM) nonmercury HAP metals (*e.g.,* lead and arsenic), and VOHAP from by-product (ByP) coke facility battery stacks; AG, formaldehyde, Hg, PAH, and PM nonmercury metals from heat and/or nonrecovery (HNR) facilities' heat recovery steam generators (HRSG) main stacks; AG, formaldehyde, Hg, PAH, PM nonmercury metals, and VOHAP from HNR facilities' bypass/waste heat (B/W) stacks. In this action, under the authority of CAA sections 112(d)(2) and (3) and 112(h), we are finalizing MACT floor standards (*i.e.,* the minimum stringency level allowed by the CAA) for these previously unregulated HAP.

Also under the technology review for the PQBS NESHAP pursuant to CAA section 112(d)(6), the EPA also is setting a 20 percent opacity limit for HNR B/W stacks to be measured weekly. The EPA did not identify any other cost-effective options to reduce emissions from currently regulated sources under the PQBS NESHAP.

The EPA is finalizing amendments under the technology review for the COB NESHAP pursuant to CAA section 112(d)(6) to include: (1) lower emission leak limits for ByP facility coke oven doors, lids, and offtakes; (2) for ByP facilities, continuous fenceline monitoring for benzene along with an action level for benzene (as a surrogate for coke oven emissions) and a requirement for root cause analysis and corrective actions (RCACA) if the action level is exceeded; (3) for HNR facilities, a requirement to demonstrate that there are zero leaks from their oven doors, as well as to ensure negative pressure in the ovens or common tunnels; and (4) a revised equation to estimate emissions from leaks of ByP oven doors that better represents the current industry emissions. The EPA did not identify any other cost-effective options to reduce emissions from currently regulated sources under the COB NESHAP.

We conducted a demographics analysis that indicates that the population within 10 kilometers (km) of the coke oven facilities with whole facility cancer risks greater than or equal to 1-in-1 million is predominantly white (62 percent versus 60 percent nationally). The population with whole facility cancer risks greater than or equal to 1-in-1 million is 30 percent African American compared to the national average of 12 percent. The population with whole facility cancer risks greater than or equal to 1-in-1 million living within 10 km of the two facilities located in Alabama is 56 percent African American, which is significantly higher than the national average. The population with whole facility cancer risks greater than or equal to 1-in-1 million also is above the national average for the percent of the population living below poverty (17 percent versus a 13 percent national average).

In addition, we are finalizing: (1) the removal of exemptions for periods of startup, shutdown, and malfunction (SSM) consistent with a 2008 court decision, *Sierra Club* v. *EPA,* 551 F.3d 1019 (D.C. Cir. 2008), and clarifying that the emissions standards apply at all times; and (2) the addition of requirements for electronic reporting of performance test results and compliance reports for both NESHAP and fenceline monitoring reports for the COB NESHAP.

3. Costs and Benefits

Cost impacts will occur due to the required source testing that includes: testing every 5 years to demonstrate compliance with the promulgated MACT floor standards for PQBS; weekly opacity testing of HNR B/W heat stacks; daily visible leak testing of HNR ovens doors; and fenceline monitoring at ByP facilities. The total costs for the rules are estimated to be $4.0 million per year for the 11 operating facilities ($2023), with $500,000 per facility, on average for the five HNR facilities and $250,000 per facility, on average, for the 6 ByP facilities. The testing to demonstrate compliance with the MACT limits is estimated to be $3.3 million total for the 11 operating facilities, with $300,000 per facility on average. The HNR B/W stack opacity testing is estimated to be $22,000 total for the five HNR facilities, with $4,400 per facility on average. The HNR daily door leak testing with EPA Method 303A is estimated to be $105,000 total for the five HNR facilities, with $21,000 per facility on average. The fenceline monitoring costs are estimated to be $640,472 for the six ByP facilities, with $107,000 per facility on average.

The EPA has not quantified any benefits associated with this final rule because all covered facilities are expected to already have HAP emissions levels that are below the final limits, based on facility data available to the EPA. However, the EPA anticipates that this final rule's new requirements will increase the likelihood of facilities successfully detecting any HAP emissions in excess of the specified limits, allowing for earlier corrective action and thus preventing pollution increases that could otherwise occur. The potential public health benefits associated with such prevention are difficult to estimate, given that they correspond to hypothetical scenarios of emissions beyond those indicated by current facility data, and are thus not quantified in EPA's analysis.

4. Community Outreach

The EPA held a virtual public hearing on August 31, 2023, from 11:00 a.m. to 3:00 p.m. eastern daylight time (EDT), where 37 speakers provided oral comments. The EPA held a virtual webinar on September 14, 2023, from 6:00 p.m. to 7:30 p.m. EDT, where 34 registrants participated.

[2] *Louisiana Environmental Action Network* v. *EPA,* 955 F.3d 1088 (D.C. Cir. 2020).

B. Does this action apply to me?

Regulated entities. Categories and entities potentially regulated by this action are shown in table 1 of this preamble.

TABLE 1—NESHAP AND INDUSTRIAL SOURCE CATEGORIES AFFECTED BY THIS FINAL ACTION

Source category	NESHAP	NAICS [a] code
Coke Ovens: Pushing, Quenching, and Battery Stacks.	40 CFR part 63, subpart CCCCC	331110 Iron and Steel Mills and Ferroalloy Manufacturing.
Coke Oven Batteries	40 CFR part 63, subpart L	324199 All Other Petroleum and Coal Products Manufacturing.

[a] North American Industry Classification System.

Table 1 of this preamble is not intended to be exhaustive, but rather to provide a guide for readers regarding entities likely to be affected by the final action for the source category listed. To determine whether your facility is affected, you should examine the applicability criteria in the appropriate NESHAP. If you have any questions regarding the applicability of any aspect of this NESHAP, please contact the appropriate person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section of this preamble.

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

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

Additional information is available on RTR website at *https://www.epa.gov/stationary-sources-air-pollution/risk-and-technology-review-national-emissions-standards-hazardous.* This information includes an overview of the RTR program and links to project websites for the RTR source categories.

D. Judicial Review and Administrative Reconsideration

Under CAA section 307(b)(1), judicial review of this final action is available only by filing a petition for review in the United States Court of Appeals for the District of Columbia Circuit (the Court) by September 3, 2024. Under CAA section 307(b)(2), the requirements established by this final rule may not be challenged separately in any civil or criminal proceedings brought by the EPA to enforce the requirements.

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

II. Background

A. What is the statutory authority for this action?

Section 112 of the CAA establishes a two-stage regulatory process to address emissions of hazardous air pollutants (HAP) from stationary sources. In the first stage, we must identify categories of sources emitting one or more of the HAP listed in CAA section 112(b) and then promulgate technology-based NESHAP for those sources. ''Major sources'' are those that emit, or have the potential to emit, any single HAP at a rate of 10 tons per year (tpy) or more, or 25 tpy or more of any combination of HAP. For major sources, these standards are commonly referred to as MACT standards and must reflect the maximum degree of emission reductions of HAP achievable (after considering cost, energy requirements, and non-air quality health and environmental impacts). In developing MACT standards, CAA section 112(d)(2) directs the EPA to consider the application of measures, processes, methods, systems, or techniques, including, but not limited to, those that reduce the volume of or eliminate HAP emissions through process changes, substitution of materials, or other modifications; enclose systems or processes to eliminate emissions; collect, capture, or treat HAP when released from a process, stack, storage, or fugitive emissions point; are design, equipment, work practice, or operational standards; or any combination of the above.

For these MACT standards, the statute specifies certain minimum stringency requirements, which are referred to as MACT floor requirements, and which may not be based on cost considerations. See CAA section 112(d)(3). For new sources, the MACT floor cannot be less stringent than the emission control achieved in practice by the best-controlled similar source. The MACT standards for existing sources can be less stringent than floors for new sources, but they cannot be less stringent than the average emission limitation achieved by the best-performing 12 percent of existing sources in the category or subcategory (or the best-performing five sources for categories or subcategories with fewer than 30 sources). In developing MACT standards, we must also consider control options that are more stringent than the floor under CAA section 112(d)(2). We may establish standards more stringent than the floor, referred to as ''beyond-the-floor'', based on the consideration of the cost of achieving the emissions reductions, any non-air quality health and environmental impacts, and energy requirements.

In the second stage of the regulatory process, the CAA requires the EPA to undertake two different analyses, which we refer to as the technology review and the residual risk review. Under the technology review, we must review the technology-based standards and revise them ''as necessary (taking into account developments in practices, processes, and control technologies)'' no less frequently than every 8 years, pursuant to CAA section 112(d)(6). In conducting this review, the EPA is not required to recalculate the MACT floors that were established in earlier rulemakings. *Natural Resources Defense Council (NRDC)* v. *EPA,* 529 F.3d 1077, 1084 (D.C. Cir. 2008). *Association of Battery Recyclers, Inc.* v. *EPA,* 716 F.3d 667 (D.C. Cir. 2013). The EPA may consider cost in deciding whether to revise the standards pursuant to CAA section 112(d)(6). The EPA is required to address regulatory gaps, such as missing standards for listed air toxics known to be emitted from the source category, and any new MACT standards must be established under CAA sections 112(d)(2) and (3), or, in specific circumstances, CAA sections 112(d)(4) or (h).[3] Under the residual risk review, we must evaluate the risk to public health remaining after application of the technology-based standards and revise the standards, if necessary, to provide an ample margin of safety to protect public health or to prevent, taking into consideration costs, energy, safety, and other relevant factors, an adverse environmental effect. The residual risk review is required within 8 years after promulgation of the technology-based standards, pursuant to CAA section 112(f). In conducting the residual risk review, if the EPA determines that the current standards provide an ample margin of safety to protect public health, it is not necessary to revise the MACT standards pursuant to CAA section 112(f).[4] For more information on the statutory authority for this rule, see 88 FR 55858.

B. What are coke ovens, what are the NESHAP for Coke Ovens: Pushing, Quenching, and Battery Stacks and the NESHAP for Coke Oven Batteries source categories, and how do the NESHAP regulate HAP emissions from the source categories?

Coke ovens are chambers of brick or other heat-resistant material in which coal is heated to separate the gas, water, and tar in coal to produce coke, a fuel and source of carbon used in steelmaking. The coking process takes place at two types of facilities: (1) ByP facilities, where chemical by-products are recovered from coke oven emissions (COE), a CAA section 112(b) listed HAP, in coke oven exhaust at a co-located coke byproduct chemical recovery plant (CBRP); or (2) HNR facilities, where chemicals are not recovered (and, therefore, are called ''nonrecovery'' facilities), but heat may be recovered from the exhaust from coke ovens in a heat recovery steam generator (HRSG). There are 12 coke facilities in the United States (U.S.), with 11 of these currently operating. Seven of these facilities use the ByP process and five use the HNR process. Of the five HNR facilities, four have HRSGs and one does not. For additional background information on the source categories see the proposal preamble (88 FR 55858).

The COB NESHAP (40 CFR part 63, subpart L), promulgated in 1993, set emission limits (via limiting the number of seconds of visible emissions (VE)) from doors, lids, and offtakes at HNR facilities and any new ByP facilities to 0 percent leaking. The NESHAP for PQBS (40 CFR part 63, subpart CCCCC) were promulgated on April 14, 2003. The PQBS NESHAP established emissions standards for pushing coke out of ovens, quenching hot coke, and battery stacks of oven combustion.

For nonrecovery facilities, *i.e.,* facilities that do not recover chemicals, operating before 2004, the 1993 COB NESHAP required good operating and maintenance practices to minimize emissions during charging. The 1993 promulgated requirement for charging affected only SunCoke's Vansant (Virginia) facility, which is a nonrecovery coke facility, and also does not recover heat. For the nonrecovery facilities that recover heat that began operating after 2004, which includes the other four HNR facilities and any future HNR facilities, the NESHAP regulates charging via PM and opacity limits, requires a PM control device, and establishes work practices for minimizing VE during charging.

For ByP facilities, the COB NESHAP regulates emissions occurring during the charging of coal into the ovens and from leaking oven doors, leaking topside charging port lids, and leaking offtake ducts. The charging process for ByP facilities includes opening the lids on the charging ports on the top of the tall narrow ovens and discharging coal from hoppers of a car that positions itself over the oven port and drops coal into the oven. The COB NESHAP limits the number of seconds of VE during a charge at ByP facilities, as determined by measurements made according to EPA Method 303.

The emissions from leaks at ByP batteries are regulated under the COB NESHAP by limits on the percent of doors, lids, and offtakes that leak COE. The emissions from leaks at HNR batteries are regulated under the COB NESHAP by limits on leaks only from oven doors. At HNR facilities, coal is charged into doors on one end of a long horizontal oven and pushed out the other end through another door at the other end of the oven. The offtake system at ByP facilities includes ascension pipes and collector main offtake ducts that are located on the top of the coke oven and battery. At HNR facilities, a common tunnel collects exhaust from the batteries and also is located on the top of the coke oven and battery. The common tunnels are equipped with afterburners that burn any remaining organics in the coke oven exhaust as it travels through the common tunnel. The common tunnel routes exhaust from the batteries to either HRSG or bypass/waste heat stacks depending on whether there are HRSG at the facility and whether the HRSG are operating.

The standards for the COB NESHAP are codified at 40 CFR part 63, subpart L. The COB NESHAP limits for leaks from doors, lids, and offtakes, and the requirements for charging are based on the regulatory ''track'' of the facilities. The facilities were required by CAA section 112(i)(8) to choose either the MACT track or the lowest achievable emissions rate (LAER) track by 1993 (58 FR 57898). There are no longer any ByP facilities on the MACT track operating today. Of the eleven operating coke facilities, all seven ByP facilities are on the LAER track and one HNR facility (SunCoke's Vansant plant) is on the LAER track; the remaining four HNR facilities are on the MACT track. Any future coke facilities of any type (HNR or ByP) would be on the MACT track,[5] but no additional ByP facilities are expected in the future due to the requirement for 0 percent leaking doors, lids, and offtakes (as determined by EPA Method 303) for new facilities under the COB NESHAP. The positive pressure operation of ByP ovens likely makes it impossible to achieve zero leaks with the current ByP coke oven technology. Therefore, any new facilities would be expected to be only the HNR type, which operate under negative pressure.

The standards for the Coke PQBS NESHAP are codified at 40 CFR part 63,

[3] *Louisiana Environmental Action Network* v. *EPA*, 955 F.3d 1088 (D.C. Cir. 2020).

[4] The Court has affirmed this approach of implementing CAA section 112(f)(2)(A): *NRDC* v. *EPA,* 529 F.3d 1077, 1083 (D.C. Cir. 2008) (''If EPA determines that the existing technology-based standards provide an 'ample margin of safety,' then the Agency is free to readopt those standards during the residual risk rulemaking.'').

[5] *See* CAA section 112(i)(8)(D).

subpart CCCCC and apply to both ByP and HNR facilities. The battery stacks are located only at ByP facilities. The proposed amendments to the Coke PQBS NESHAP added MACT limits for HNR HRSG main stacks and HNR B/W stacks, which are located only at HNR facilities.

C. What changes did we propose for the NESHAP for Coke Ovens: Pushing, Quenching, and Battery Stacks and the NESHAP for Coke Oven Batteries source categories in our August 16, 2023, proposal?

On August 16, 2023, the EPA published a proposed rule in the **Federal Register** for the NESHAPs for PQBS and COB, 40 CFR part 63, subparts CCCCC and L, respectively, that took into consideration the RTR analysis for the PQBS NESHAP and technology review for the COB NESHAP. We proposed:

- 17 new MACT standards for previously-unregulated HAP pursuant to CAA sections 112(d)(2) and (3).
- Opacity limit of 10 percent for the HNR B/W stacks and requirement for daily observation of B/W stacks during charging to determine if VE are present.
- Zero leaking oven doors at HNR oven batteries, as determined by EPA Method 303A, which relies on observing VE emanating from the ovens; and also monitoring pressure both in the ovens and the common tunnel, instead of choosing one or the other points to measure pressure and instead of choosing either 0 oven door leaks or pressure monitoring, as the current rule allows.
- Fenceline monitoring for benzene (as a surrogate for COE) along with an action level for benzene and a requirement for RCACA if the action level is exceeded.
- Lower limits for allowable leaks from coke oven doors, lids, and offtakes at ByP facilities.
- Removal of exemptions for periods of SSM consistent with a 2008 court decision, *Sierra Club* v. *EPA,* 551 F.3d 1019 (D.C. Cir. 2008), and clarifying that the emissions standards apply at all times.
- Addition of electronic reporting for performance test results and compliance reports for both NESHAP.

III. What is included in these final rules?

This action finalizes the EPA's determinations for: (1) the CAA sections 112(f) and 112(d)(6) residual risk and technology review for the NESHAP for the PQBS source category; (2) the CAA section 112(d)(6) technology review for the NESHAP for the COB source category; and (3) other changes to the NESHAP, including the removal of SSM exemptions and addition of electronic reporting.

A. What are the final rule amendments based on the risk review for the Coke Ovens: Pushing, Quenching, and Battery Stacks source category?

Considering the health risk information and factors discussed in the August 2023 proposed rule for the PQBS NESHAP, the EPA is finalizing a determination that the risks for this source category under the current NESHAP provisions are acceptable pursuant to CAA section 112(f). We did not identify any potential cost-effective controls or other measures to reduce risk further under our CAA section 112(f) risk review. Therefore, based on all of the information presented in the proposed rule and in this final rule preamble, we conclude that the current standards in the PQBS NESHAP provide an ample margin of safety to protect public health and are finalizing no changes based on the risk review. Furthermore, based on our screening assessment of environmental risk presented in section IV.B.4. of the August 2023 proposed rule preamble, we have determined that HAP emissions from the Coke Ovens: PQBS source category do not result in an adverse environmental effect, and we are finalizing that it is not necessary to set a more stringent standard to prevent an adverse environmental effect, taking into consideration costs, energy, safety, and other relevant factors.

B. What are the final rule amendments based on the technology reviews for the NESHAP for Coke Ovens: Pushing, Quenching, and Battery Stacks and Coke Oven Batteries source categories?

As part of the technology review for the PQBS source category, we identified regulatory gaps (previously unregulated processes or pollutants) and are establishing new standards to fill those gaps, as described in section III.C. and IV.C. of this preamble. We also are requiring HNR B/W stacks to meet a limit of 20 percent opacity to be measured weekly at HNR B/W stacks and weekly at HRSG bypass stacks if operating.

For the COB source category, to address fugitive emissions at COB facilities as part of the technology review, we are finalizing a requirement for a work practice based on the results of fenceline monitoring for benzene at ByP facilities. The work practice has an action level of 7 microgram per cubic meter (μg/m³) of benzene (as a surrogate for COE) with a requirement for RCACA if the action level is exceeded. We also identified improvements in control of ByP battery leaks and are finalizing reduced allowable limits for the percent of leaking doors, lids, and offtakes at ByP facilities. We are finalizing a requirement to demonstrate there are zero leaking oven doors at HNR facilities, as determined by EPA Method 303A, and requiring either oven pressure or common tunnel pressure monitoring at HNR facilities during the main parts of the oven cycle. Lastly, we are finalizing a revised equation for estimating leaks from ByP coke oven doors based on our evaluation of the historic equation developed from 1981 coke oven leak data supplemented with recent coke oven leak data, and also considering comments received.

C. What are the final rule amendments pursuant to CAA sections 112(d)(2) and (3) for the NESHAP for the Coke Ovens: Pushing, Quenching, and Battery Stacks source category?

We are finalizing 18 MACT floor standards [6] unregulated HAP and process combinations for the NESHAP for PQBS pursuant to CAA sections 112(d)(2) and (3) and 112(h) as follows: (1) MACT floor standards for AG, HCN, Hg, and PAH from pushing operations for existing and new sources; (2) MACT floor standards for AG, HCN, Hg, and PM (as a surrogate for nonmercury HAP metals), and a work practice standard for battery stacks (based on good combustion in battery waste heat flues) for PAH, D/F and VOHAP emissions from battery stacks at ByP facilities for existing and new sources; (3) MACT standards for AG, Hg, PAH, and PM (as a surrogate for nonmercury HAP metals) from HNR HRSG main stacks for existing and new sources; and (4) MACT standards for AG, formaldehyde, Hg, PAH, and PM (as a surrogate for nonmercury HAP metals) for HNR B/W stacks. More details are provided in section IV.C. of this preamble.

D. What are the final rule amendments addressing emissions during periods of startup, shutdown, and malfunction?

We are finalizing the removal of exemptions for periods of startup, shutdown, and malfunction (SSM) largely as proposed, consistent with a 2008 court decision, *Sierra Club* v. *EPA,* 551 F.3d 1019 (D.C. Cir. 2008), and

[6] Note, we erroneously reported that there were 15 new MACT floor limits in the August 2023 proposal preamble. This was a typographic error. The proposed rule included 17 new MACT floor limits and 2 BTF limits; the BTF limits are not included in the final rule. However, we are adding a work practice standard in this final rule so the count of standards is now 18.

clarifying that the emissions standards apply at all times.

E. What are the final rule amendments addressing electronic reporting?

The EPA is promulgating that owners and operators of coke oven facilities, under both the PQBS NESHAP and COB NESHAP, submit electronic copies of required performance test reports, periodic reports (including fenceline monitoring reports), and periodic certifications through the EPA's Central Data Exchange (CDX) using the Compliance and Emissions Data Reporting Interface (CEDRI). A description of the electronic data submission process is provided in the memorandum *Electronic Reporting Requirements for New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Rules,* available in the dockets for this action (EPA–HQ–OAR–2002–0085–0908 and EPA–HQ–OAR–2003–0051–0748). The promulgated rule requires that performance test results collected using test methods that are supported by the EPA's ERT as listed on the ERT website[7] at the time of the test be submitted in the format generated through the use of the ERT or an electronic file consistent with the *xml* schema on the ERT website, and other performance test results be submitted in portable document format (PDF) using the attachment module of the ERT.

For the quarterly and semiannual compliance reports of the PQBS NESHAP source category and the semiannual compliance certification of the COB NESHAP source category, the promulgated rule requires that owners and operators use the appropriate spreadsheet template to submit information to CEDRI. A draft version of the promulgated templates for these reports is included in the docket for this action.[8] The final version of the templates will be available at the CEDRI website *(https://www.epa.gov/electronic-reporting-air-emissions/cedri*).

The electronic submittal of the reports addressed in this final rulemaking increases the usefulness of the data contained in those reports, is in keeping with current trends in data availability and transparency, further assists in the protection of public health and the environment, improves compliance by facilitating the ability of regulated facilities to demonstrate compliance with requirements and by facilitating the ability of delegated state, local, tribal, and territorial air agencies and the EPA to assess and determine compliance, and ultimately reduces the burden on regulated facilities, delegated air agencies, and the EPA. Electronic reporting also eliminates paper-based, manual processes, thereby saving time and resources, simplifying data entry, eliminating redundancies, minimizing data reporting errors, and providing data quickly and accurately to the affected facilities, air agencies, the EPA, and the public. Moreover, electronic reporting is consistent with the EPA's plan[9] to implement Executive Order 13563 and is in keeping with the EPA's agency-wide policy[10] developed in response to the White House's Digital Government Strategy.[11] For more information on the benefits of electronic reporting, see the memorandum *Electronic Reporting Requirements for New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Rules,* referenced earlier in this section.

F. What are the effective and compliance dates of the final rule amendments?

These final rules are effective upon promulgation. The compliance date for the MACT standards for sources in the PQBS NESHAP is January 5, 2026. For the periodic MACT compliance testing, we are promulgating that periodic testing be conducted at the beginning of each permit cycle or every 5 years, whichever is shorter. The compliance date for opacity limits on HNR B/W stacks is July 7, 2025. The compliance date for achieving zero leaks from HNR oven doors and concurrent oven or tunnel pressure monitoring is July 7, 2025.

For fenceline monitoring provisions of the COB NESHAP, the compliance date to begin fenceline monitoring is July 7, 2025. The compliance date for complying with the revisions to the limits for allowable leaks from doors, lids, and offtakes is July 7, 2025.

The date for complying with the SSM changes is no later than July 5, 2024 with the exception of recordkeeping provisions. For recordkeeping under the SSM, facilities must comply with this requirement January 2, 2025. The date for complying with the recordkeeping provisions associated with malfunction events is January 2, 2025.

G. What are the final rule amendments addressing adding 1-bromopropane to list of HAP?

On January 5, 2022, the EPA published a final rule amending the list of HAP under the CAA to add 1-bromopropane (1–BP) in response to public petitions previously granted by the EPA. (87 FR 393). Consequently, as each NESHAP is reviewed, the EPA is evaluating whether the addition of 1–BP to the CAA section 112 HAP list impacts the source category. For the PQBS and COB source categories, we concluded that the inclusion of 1–BP as a regulated HAP would not impact the representativeness of the MACT standard because, based on available information, we have no evidence that 1–BP is emitted from this source category. No comments were received on this subject for the coke ovens NESHAP. As a result, no changes are being promulgated to the PQBS and COB NESHAP based on the January 2022 rule adding 1–BP to the list of HAP.

IV. What is the rationale for our final decisions and amendments for the NESHAP for Coke Ovens: Pushing, Quenching, and Battery Stacks and the NESHAP for Coke Oven Batteries source categories?

For each issue, this section provides a description of what we proposed and what we are finalizing for the issue, the EPA's rationale for the final decisions and amendments, and a summary of key comments and responses. For all comments not discussed in this preamble, comment summaries and the EPA's responses can be found in the *Response to Comment* document,[12] which is available in the docket for this final action.

[7] *https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert.*

[8] See Draft Form 5900–618 Coke Ovens Part 63 Subpart L Semiannual Report.xlsx, Draft Form 5900–619 Part 63 Subpart L Fenceline Quarterly Report.xlsx, and Draft Form 5900–621 Coke Ovens Part 63 Subpart CCCCC Semiannual Report.xlsx, available at Docket ID. No EPA–HQ–OAR–2002–0085 and EPA–HQ–OAR–2003–0051.

[9] *EPA's Final Plan for Periodic Retrospective Reviews.* August 2011. Available at: *https://www.regulations.gov/document?D=EPA-HQ-OA-2011-0156-0154.*

[10] E-Reporting Policy Statement for EPA Regulations. September 2013. Available at: *https://www.epa.gov/sites/production/files/2016-03/documents/epa-ereporting-policy-statement-2013-09-30.pdf.*

[11] Digital Government: Building a 21st Century Platform to Better Serve the American People. May 2012. Available at: *https://obamawhitehouse.archives.gov/sites/default/files/omb/egov/digital-government/digital-government.html.*

[12] *Summary of Public Comments and Responses for Coke Ovens: Pushing, Quenching, and Battery Stacks Residual Risk and Technology Review, and Coke Oven Batteries Periodic Technology Review.* U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Sector Policies and Programs Division (D243–02), Research Triangle Park, North Carolina. May 1, 2024.

A. Residual Risk Review for the NESHAP for Coke Ovens: Pushing, Quenching, and Battery Stacks Source Category

1. What did we propose pursuant to CAA section 112(f) for the NESHAP for Coke Ovens: Pushing, Quenching, and Battery Stacks source category?

Pursuant to CAA section 112(f), the EPA conducted a residual risk review of the PQBS NESHAP and presented the results of this review, along with our proposed decisions regarding risk acceptability and ample margin of safety, in the August 16, 2023, proposed rule for the PQBS source category (88 FR 55858). The results of the risk assessment for the proposal are presented in table 2 of this preamble. More detail is in the residual risk technical support document *Residual Risk Assessment for the Coke Pushing, Quenching, and Battery Stacks Source Category in Support of the 2023 Risk and Technology Review Proposed Rule.*[13]

TABLE 2—COKE OVEN PUSHING, QUENCHING, AND BATTERY STACKS SOURCE CATEGORY INHALATION RISK ASSESSMENT RESULTS IN PROPOSAL

Risk assessment	Number of facilities	Maximum individual cancer risk (in 1 million)[a]	Estimated population at increased risk of cancer ≥ 1-in-1 million	Estimated annual cancer incidence (cases per year)	Maximum chronic noncancer TOSHI	Maximum screening acute noncancer HQ
Based on Actual Emissions Level						
Source Category Emissions	14	9	2,900	0.02	0.1 (arsenic)	HQ_{REL} = 0.6 (arsenic)
Facility-Wide	14	50	2.7 million	0.2	2 (HCN)	HQ_{REL} = 0.6 (arsenic)
Based on Allowable Emissions Level						
Source Category Emissions	14	10	440,000	0.05	0.2 (arsenic).	

[a] Maximum individual excess lifetime cancer risk due to HAP emissions.

The results at proposal of the chronic baseline inhalation cancer risk assessment indicated that, based on estimates of current actual emissions, the MIR posed by the PQBS source category was 9-in-1 million driven by arsenic emissions, primarily from bypass/waste heat stacks. The total estimated cancer incidence estimated from this source category at proposal was 0.02 excess cancer cases per year, or 1 case every 50 years. No people were estimated to have inhalation cancer risks greater than 100-in-1 million; the population estimated to be exposed to cancer risks greater than or equal to 1-in-1 million was approximately 2,900. The estimated maximum chronic noncancer target organ-specific hazard index (TOSHI) from inhalation exposure for this source category was 0.1 for developmental effects from arsenic emissions The acute risk screening assessment of reasonable worst-case inhalation impacts indicated a maximum acute hazard quotient (HQ) of 0.6 based on the REL for arsenic.

The results of the inhalation risk assessment at proposal, considering MACT-allowable emissions, indicated that the cancer MIR was 10-in-1 million driven by arsenic emissions, primarily from HNR pushing and bypass/waste heat stacks. The total estimated cancer incidence from this source category based on allowable emissions was 0.05 excess cancer cases per year, or one excess case every 20 years. No people were estimated to have inhalation cancer risks above 100-in-1 million due to allowable emissions, and the population exposed to cancer risks greater than or equal to 1-in-1 million was approximately 440,000. In addition, the maximum modeled chronic noncancer TOSHI for the source category based on allowable emissions was estimated to be 0.2 (for developmental effects from arsenic emissions).

The maximum lifetime individual cancer risk at proposal posed by the 14 modeled facilities and based on whole facility emissions was 50-in-1 million, with COE from coke oven doors (a regulated source in the COB NESHAP), driving the whole facility risk. The total estimated cancer incidence based on facility-wide emission levels was 0.2 excess cancer cases per year. Regarding the noncancer risk assessment, the maximum chronic noncancer TOSHI posed by whole facility emissions was estimated to be 2 (for the neurological and thyroid systems as the target organs) driven by emissions of HCN from CBRPs, which are emissions sources not included within the source category (PQBS) addressed in the risk assessment for this rulemaking nor included in the COB NESHAP.

We weighed all health risk measures and factors, including those shown in table 2 of this preamble, in our risk acceptability determination and proposed that the risks posed by the PQBS source category under the current MACT provisions were acceptable.

Under the proposed ample margin of safety analysis, we again considered all of the health factors evaluated in the acceptability determination and evaluated the cost and feasibility of available control technologies and other measures (including the control devices and other measures examined under the technology review) that could be applied to further reduce risk. We also considered whether, taking into consideration costs, energy, safety, and other relevant factors, additional standards are required to prevent an adverse environmental effect.

We proposed that the current NESHAP provides an ample margin of safety to protect public health and that no additional standards are necessary to prevent an adverse environmental effect. Therefore, we did not propose amendments under CAA section 112(f)(2). However, we noted that the proposed beyond-the-floor (BTF) MACT limits for HNR B/W stacks would reduce the estimated MIR from 9-in-1 million to 2-in-1 million; and the population estimated to be exposed to cancer risks greater than or equal to 1-in-1 million would be reduced from approximately 2,900 to 390 with the proposed BTF MACT limits. The whole facility cancer MIR (the maximum cancer risk posed by all sources of HAP at coke oven facilities) would remain unchanged, at 50-in-1 million with BTF MACT limits, because the whole facility MIR was driven by the estimated actual

[13] *Residual Risk Assessment for the Coke Ovens: Pushing, Quenching, and Battery Stacks Source Category in Support of the 2023 Risk and Technology Review Proposed Rule.* U.S. Environmental Protection Agency, Office of Air and Radiation, Office of Air Quality Planning and Standards, Research Triangle Park, NC. May 2023. Docket No. EPA–HQ–OAR–2002–0085.

current fugitive emissions from coke oven doors and we did not expect reductions of the actual emissions from doors as a result of the proposed rule.

2. How did the risk review change for the NESHAP for Coke Ovens: Pushing, Quenching, and Battery Stacks source category?

Changes were made to the risk emission model file used in the risk analyses which resulted in small changes in the estimated risk. These changes are listed below.

- Removed U.S. Steel Clairton batteries 1 through 3 and associated sources that were shut down in 2023.
- Removed Cleveland Cliffs' Follansbee, West Virginia, facility because it permanently closed in Spring 2022.
- Removed Cleveland Cliffs' Middletown, Ohio, facility because it permanently closed as of 2023.
- Corrected latitude and longitude values for two natural gas water heaters at Cleveland Cliffs' Warren, Ohio, facility.
- Corrected the angle of rotation for the byproduct plant fugitive source at Cleveland Cliffs' Warren, Ohio, facility.
- Replaced SunCoke's East Chicago facility's HRSG main stack (default) emissions with test data that was received too late to model for the proposal (received May 2023).
- Incorporated Hg emissions submitted for HNR HRSG main stacks from previous tests for SunCoke's Middletown and East Chicago (Cokenergy) facilities, which also changed the default average HNR HRSG main stack Hg emissions used for two other SunCoke facilities (SunCoke's Franklin Furnace and Gateway facilities).
- Incorporated Hg emissions data from previous tests submitted by SunCoke for HNR B/W stacks, which changed the Hg emissions for SunCoke's Middletown, Vansant, and East Chicago facilities.
- Revised emissions from door leaks based on revisions to new equation as a result of comments.

The results of the risk assessment performed for the final rule that incorporates the above changes are shown in table 3 of this section. The main difference in the risk estimated for the final rule and the proposed rule is the reduction in the whole facility MIR from 50 to 40-in-1 million, resulting primarily from removing two facilities (Cleveland Cliffs' Middleton, Ohio, and Follansbee, West Virginia, facilities) that shut down after years of being idle and removing three batteries (1,2,3) at U.S. Steel's facility in Clairton, Pennsylvania, that were permanently shut down. The baseline PQBS source category MIR remained at 9-in-1 million.

TABLE 3—COKE OVEN PUSHING, QUENCHING, AND BATTERY STACKS SOURCE CATEGORY INHALATION RISK ASSESSMENT RESULTS

Risk assessment scenario	Number of Facilities	Maximum individual cancer risk (in 1 million)[a]	Estimated population at increased risk of cancer ≥ 1-in-1 million	Estimated annual cancer incidence (cases per year)	Maximum chronic noncancer TOSHI	Maximum screening acute noncancer HQ
Based on Actual Emissions Level[b]						
Source Category Emissions	12	9	2,600	0.01	0.1 (arsenic)	HQ_{REL} = 0.6 (arsenic).
Facility-Wide Emissions[b]	12	40	2.4M	0.1	2 (HCN)	HQ_{REL} = 0.6 (arsenic).

[a] Maximum individual excess lifetime cancer risk due to HAP emission.
[b] See section IV.A. of this preamble for more details on the risk assessment.

As noted in the proposal, we weigh a range of health risk measures and factors in our risk acceptability determination, including the cancer MIR, the number of persons in various cancer and noncancer risk ranges, cancer incidence, the maximum noncancer TOSHI, the maximum acute noncancer HQ, and risk estimation uncertainties (54 FR 38044, September 14, 1989). Under the current MACT standards for the PQBS source category, the revised risk results indicate that the MIR is 9-in-1 million, driven by emissions of arsenic. The estimated incidence of cancer due to inhalation exposures is 0.01 excess cancer case per year. No people are estimated to have inhalation cancer risks greater than 100-in-1 million, and the population estimated to be exposed to cancer risks greater than or equal to 1-in-1 million is approximately 2,600. The estimated maximum chronic noncancer TOSHI from inhalation exposure for this source category is 0.1 for developmental effects. The acute risk screening assessment of reasonable worst-case inhalation impacts indicates a maximum acute HQ of 0.6.

We conducted a revised assessment of facility-wide (or "whole-facility") risk to characterize the source category risk in the context of whole-facility risk. The maximum lifetime individual cancer risk based on whole-facility emissions is 40-in-1 million with COE from coke oven doors (a regulated source in the COB NESHAP source category) driving the risk. The total estimated cancer incidence based on facility-wide emission levels is 0.1 excess cancer cases per year. No people are estimated to have inhalation cancer risks above 100–in-1 million due to facility-wide emissions, and the population exposed to cancer risk greater than or equal to 1-in-1 million is approximately 2.4 million people. The estimated maximum chronic noncancer TOSHI posed by whole facility emissions is 2 (for the neurological and thyroid systems as the target organs) driven by emissions of HCN from CBRPs, which are emissions sources not included within the source category. Approximately 10 people are estimated to be exposed to a TOSHI greater than 1 due to whole facility emissions. The acute risk screening assessment of reasonable worst-case inhalation impacts indicates a maximum acute HQ of 0.6.

We are not finalizing the proposed BTF limit for PM, as a surrogate for nonmercury HAP metals, pursuant to CAA sections 112(d)(2) and (3) for HRSG waste heat stacks in the PQBS source category for the reasons described in section IV.C.4. in this preamble, which would have achieved a reduction of the metal HAP emissions (*e.g.,* arsenic and lead) as well as a reduction in the estimated MIR due to arsenic from these units. Therefore, the overall post control MIR for this source category remains at 9-in-1 million. Additionally, the total estimated cancer incidence remains unchanged at 0.01 excess cancer cases per year, and the maximum modeled chronic noncancer

TOSHI for the source category remains unchanged at 0.1 (for respiratory effects from HCl emissions). The estimated worst-case acute exposures to emissions from the PQBS source category is a maximum acute HQ of 0.6, based on the reference exposure limit (REL) for arsenic. Considering all of the health risk information and factors discussed above, including the uncertainties discussed in the proposal preamble, the EPA is finalizing that the risks for this source category under the current NESHAP provisions are acceptable.

Under the ample margin of safety analysis, we did not change our proposal assessment that there were no cost-effective controls or measures to further reduce risks due to HAP emissions. Therefore, there are no changes for the final rule and the EPA concludes that the final rule provides an ample margin of safety to protect public health, that HAP emissions from the PQBS source category do not result in an adverse environmental effect, and that it is not necessary to set a more stringent standard to prevent an adverse environmental effect, taking into consideration costs, energy, safety, and other relevant factors.

3. What key comments did we receive on the risk review, and what are our responses?

We received a few comments on the risk review that offered other data and procedures to use rather than the EPA's protocol for risk assessment as well as comments on the risk to minority populations. The key comments on the risk review are summarized in this section along with the EPA's responses to the comments. Other comments received on the risk review are summarized along with the EPA's responses in the *Response to Comment* [14] document, and which is located in the dockets to the coke ovens rules.

Comment: A commenter stated that they believe the EPA does not consider the disproportionate exposure and resulting health impacts for African Americans and people living below the poverty level to ensure an ''ample margin of safety'' to protect public health. The commenter requested that the EPA reduce the health risks and advance environmental justice for this disproportionate exposure by setting standards to ensure an ''ample margin of safety to protect public health.'' The commenter asserted that the EPA's own demographic analysis reveals that African Americans and people living below the poverty level experience a higher level of exposure to toxic air pollution, and consequently greater health impacts, compared to their representation in the national population. This exposure, combined with other types of toxic exposure in their neighborhoods, contributes to cumulative health risks. The commenter stated that the EPA's proposal does not include any changes to mitigate these health risks or address the environmental justice implications of this disproportionate exposure. The commenter contended that this conclusion is unlawful and arbitrary and runs contrary to the Biden Administration's commitment to advancing environmental justice.

Response: The EPA is directed by Executive Order, to the greatest extent practicable and permitted by law, to make environmental justice part of its mission by identifying and addressing, as appropriate, disproportionate and adverse human health or environmental effects of its programs, policies, and activities on communities with environmental justice concerns. The EPA's environmental justice policies promote justice, including access to health impact data, by providing information on the types of environmental justice harms and risks that are prevalent in communities with environmental justice concerns. No such policies mandate consideration of any specific factors or particular outcomes from an action, but they direct that environmental justice analysis be performed as part of regulatory impact analysis, as appropriate, so that the public can have this information. 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. The residual risk estimated for the PQBS source category, with a cancer MIR of 9-in-1 million and where 2,600 people are estimated to have a cancer risk greater than 1-in-1 million (*i.e.,* risk from 1-in-1 million up to 9-in-1 million) is considered acceptable for all populations. Also, as noted previously in this preamble, we conclude that the PQBS NESHAP provides an ample margin of safety to protect public health.

Comment: A commenter requested that the EPA include a risk review for LAER track ovens in this rulemaking. The commenter contended the EPA did not perform the required risk review in 2020 for the COB, subpart L, LAER track coke ovens. The EPA mentions in the *Technology Review Memorandum* that the LAER track RTR was to be completed by 2020, however, the commenter indicates that it was not. The Fall 2022 Regulatory Agenda contemplated a risk review for LAER track coke ovens. However, the risk review for LAER track coke ovens, which includes eight of the nine ByP facilities, is not included in this rulemaking. The commenter stated that the EPA has not delivered on its public commitments to review risks for LAER track ovens, which include almost all facilities with co-located CBRPs.

Response: The EPA was not able to complete a risk review for LAER track sources in time for the court-ordered final rule for the Coke PQBS RTR and Technology Review of the COB NESHAP. The EPA will undertake the LAER track risk review rulemaking as we plan future activities in the steel sector.

4. What is the rationale for our final approach and final decisions for the risk review?

We considered all of the health risk information and factors due to emissions from PQBS source category as well as the uncertainties in the risk assessment and have determined that the risks for this source category under the current PQBS NESHAP provisions are acceptable because the cancer MIR of 9-in-1 million is well below the presumptive level of acceptability (*i.e.,* 100-in-1 million) and because we did not identify any significant noncancer risks from the source category.

Under the ample margin of safety analysis, we again considered all of the health factors evaluated in the acceptability determination and evaluated the cost and feasibility of available control technologies and other measures that could be applied to further reduce risk. We also considered whether, taking into consideration costs, energy, safety, and other relevant factors, additional standards are required to prevent an adverse environmental effect. We determined that no additional standards are required to provide an ample margin of safety to protect public health or to prevent an adverse environmental effect.

[14] *Summary of Public Comments and Responses for Coke Ovens: Pushing, Quenching, and Battery Stacks Residual Risk and Technology Review, and Coke Oven Batteries Periodic Technology Review.* U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Sector Policies and Programs Division (D243–02), Research Triangle Park, North Carolina. May 1, 2024.

B. Technology Review for the NESHAP for Coke Ovens: Pushing, Quenching, and Battery Stacks and the NESHAP for Coke Oven Batteries Source Categories

1. What did we propose pursuant to CAA section 112(d)(6) for the NESHAP for Coke Ovens: Pushing, Quenching, and Battery Stacks source category?

a. MACT Limits

To fulfill the requirements of the *LEAN* decision,[15] we proposed 17 new MACT limits [16] for unregulated HAP and processes pursuant to CAA sections 112(d)(2)/(3) based on available test data. These MACT limits along with a summary of comments and responses, changes made for the final rule, and the rationale for the final standards (*i.e.,* MACT limits) are provided in section IV.C. of this preamble.

b. Opacity Limit for HNR B/W Stacks

We proposed a 10 percent opacity limit for HNR B/W stacks during charging to be measured daily to limit the PM emissions from these sources.

c. Other Aspects of the CAA Section 112(d)(6) Technology Review for the PQBS Source Category (Subpart CCCCC)

As explained in the August 2023 proposed rule preamble, under the technology review for the PQBS NESHAP pursuant to CAA section 112(d)(6), the EPA did not identify any other cost-effective options to reduce emissions from currently regulated sources under the PQBS NESHAP apart from those requirements discussed in IV.B.1.a. and IV.B.1.b. of this section. Therefore, the EPA did not propose any other changes to the PQBS NESHAP pursuant to CAA section 112(d)(6). However, the EPA solicited comments regarding whether a 1-hour opacity standard would identify short-term periods of high opacity that are not identified from the current 24-hour standard of 15 percent opacity; and whether excessive COE are emitted from ovens after being pushed and before they are charged again (*i.e.,* ''soaking emissions'') despite work practice standards currently applicable to these emisions.

[15] *Louisiana Environmental Action Network* v. *EPA,* 955 F.3d 1088 (D.C. Cir. 2020).

[16] Note, we erroneously reported that there were 15 new MACT floor limits in the August 2023 proposal preamble. This was a typographic error. The proposed rule included 17 new MACT floor limits and 2 BTF limits; the BTF limits are not included in the final rule. However, we are adding a work practice standard in this final rule so the count of standards is now 18.

2. How did the technology review change for the NESHAP for Coke Ovens: Pushing, Quenching, and Battery Stacks NESHAP source category?

As described in section IV.C. of this preamble, we are finalizing 17 [17] new MACT floor emissions limits pursuant to CAA sections 112(d)(2)/(3) based on available test data for previously unregulated HAP, as identified in the August 2023 proposal (see section IV.C. for details). However, some of the limits changed in the final rule to reflect additional data submitted by coke oven facilities since the limits were developed for the proposal as well as comments received to standardize limits which are in units of grains per dry standard cubic feet (gr/dscf) to 10 percent oxygen. The revised MACT limits include those for: (1) pushing for AG, HCN, and PAH; (2) battery stacks for AG, HCN, Hg, and PM to standardize to 10 percent oxygen; (3) HNR main stacks for AG, Hg, PAH, and PM (as a surrogate for non-Hg metal HAP), and to standardize all limits to 10 percent oxygen; and (4) HNR B/W stacks for Hg and PM, and to standardize all limits to 10 percent oxygen.

The EPA also is finalizing a MACT floor work practice standard based on ''good combustion,'' pursuant to CAA section 112(h), that addresses the previously unregulated organic HAP of D/F, PAH, and VOHAP from battery stacks. Details regarding the final MACT standards are described in section IV.C. of this preamble.

In addition, the EPA is finalizing surrogate determinations to address the additional unregulated HAP of D/F, formaldehyde, and VOHAP from pushing; formaldehyde from HNR main stacks; and VOHAP from HNR B/W stacks. Details regarding these surrogates are described in section IV.C. of this preamble.

We also are finalizing a requirement for 20 percent HNR B/W stack opacity to reflect current permit requirements that is to be determined weekly for HNR waste heat stacks, and weekly for HRSG bypass stacks when operating longer than an hour in any week.

We are not setting 1-hour opacity standards for battery stacks in the final rule. We did not propose a 1-hour battery stack limit for comment and because there was a wide variation in the data collected from facilities for 1-hour opacity from battery stacks, without additional information we were not able to determine a 1-hour limit that considered all the factors which may influence short-term opacity and the impacts the limit might have on facilities not meeting a new 1-hour standard. Although we received three comments in favor of a 1-hour standard, one against, and one comment recommending a work practice to be triggered by an (unspecified) 1-hour opacity value, we are not setting a 1-hour battery stack opacity standard at this time as part of the Technology Review in this rulemaking as a development in practices, processes, and control technologies. We also are not including additional work practices or new control device requirements for soaking emissions in the final rule as part of the technology review. The short-term nature of soaking fugitives emissions would prevent accurate measurement of a limit for opacity, and the addition of a second collecting duct that routes standpipe COE exhaust to a control device would present safety hazards to workers and could prove to be impractical. We received one comment in favor of setting soaking standards and two comments against. See the *Response to Comment* [18] document for this rulemaking to see details of the comments received on both of these sources and the EPA responses.

[17] Note, we erroneously reported that there were 15 new MACT floor limits in the August 2023 proposal preamble. This was a typographic error. The proposed rule included 17 new MACT floor limits and 2 BTF limits; the BTF limits are not included in the final rule. However, we are adding a work practice standard in this final rule so the count of standards is now 18.

3. What did we propose pursuant to CAA section 112(d)(6) for the NESHAP for Coke Oven Batteries source category?

a. Fenceline Monitoring

We proposed a fenceline monitoring work practice standard (for benzene, as a surrogate for COE). Fenceline monitoring refers to the placement of monitors along the perimeter of a facility to measure fugitive pollutant concentrations. The proposed fenceline monitoring work practice standard would have required owners and operators to monitor for benzene and conduct RCACA upon exceeding an ''action level'' concentration of 3 $\mu g/m^3$ based on the rolling 12-month average ''*delta* c'', notated as Δc, which represents the concentration difference between the highest measured concentration and lowest measured concentration for a set of samples in one sampling period. The sampling period

[18] *Summary of Public Comments and Responses for Coke Ovens: Pushing, Quenching, and Battery Stacks Residual Risk and Technology Review, and Coke Oven Batteries Periodic Technology Review.* U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Sector Policies and Programs Division (D243–02), Research Triangle Park, North Carolina. May 1, 2024.

Δc values are averaged over 12 months to create the rolling average. We also proposed a procedure for reduced monitoring at a particular monitoring location after consistent low measurements at that monitor. More details are provided in the August 16, 2023, proposed rule preamble.

b. Lower Leak Limits for Doors, Lids, and Offtakes

Due to improvements in leak control at coke oven facilities, we proposed to lower the allowable door leak limits in the NESHAP under the technology review for the COB source category pursuant to CAA section 112(d)(6). We proposed for facilities with coke production capacity of greater than or equal to 3 million tpy of coke to lower the allowable leaking door limit from the current limit of 4 percent to 1.5 percent for tall leaking doors and from 3.3 percent to 1.0 percent for ''not tall'' leaking doors. These proposed standards would currently only apply to the U.S. Steel Clairton facility in Pennsylvania. For COB facilities that have coke production capacity less than 3 million tpy coke, we proposed an allowable leaking door limit of 3.0 percent leaking doors for all sizes of doors that is lower than the limit currently in the NESHAP of 4.0 and 3.3 percent leaking doors for tall and not tall doors, respectively.

We also proposed to lower the lid and offtake allowable leak limits in the NESHAP due to similar improvements in operation of these sources by the coke facilities. The current NESHAP includes limits of 0.4 percent leaking lids and 2.5 percent leaking offtakes; we proposed a revised limit of 0.2 percent for leaking lids and a revised offtake limit of 1.2 percent leaking offtakes.

The proposed changes to the leak limits were meant to ensure continued low emissions from doors, lids, and offtakes and reflect improvements in performance of the facilities to minimize leaks. We estimated that there would be no reductions in actual emissions and there would be no control costs, but the lower limits would reduce the allowable emissions. More details are provided in the August 16, 2023, proposed rule preamble.

c. Zero Allowable Leaks From HNR Oven Doors, and Concurrent Oven or Common Tunnel Pressure Monitoring

The current NESHAP requires HNR facilities to demonstrate (with method 303) that facilities have zero leaks or demonstrate the ovens are under negative pressure. We proposed to revise the COB NESHAP for new and existing HNR doors (40 CFR 63.303(a)(1) and (b)(1)) to require zero leaks from oven doors at HNR coke batteries, as determined by EPA Method 303A, which relies on observing VE emanating from the ovens; and monitoring pressure both in the ovens and the common tunnel, instead of choosing one or the other points to measure pressure and instead of choosing either 0 oven leaks or pressure monitoring, as the current rule allows. We also proposed to add the requirement to measure both pressure in the ovens and common tunnels during the critical periods in the entire oven cycle to include, at minimum, during pushing, coking, and charging (but not necessarily continuously throughout the oven cycle).

d. Revised Emissions Equation for Emissions From Leaking Doors

We proposed a revised version of the equation than that historically had been used to estimate COE from leaking oven doors. The proposed revised equation provided more accurate estimates of COE from doors that reflected operation of any coke facility, not just the facility upon which the equation was derived, and includes facilities where advancements in preventing and reducing door leaks have occurred since 1981, which is when the equation was first developed. The proposed revised equation was as follows:

$$\text{COE-doors (lb/hr)} = ND \times (PLD_{yard}/100) \times (0.04\ \text{lb/hr}) + ND \times (PLD_{yard} \times 0.94_{bench\text{-}only/yard})/100) \times (0.023\ \text{lb/hr})$$

Where:
ND = number of doors
PLD = percent leaking doors
PLDbench = percent leaking doors from bench
PLDyard = percent leaking doors from yard

A summary of the proposed revised equation and the rationale for its development are provided in the August 16, 2023, preamble. A more detailed explanation can be found in the memorandum prepared for the proposal, *Revised Equation to Estimate Coke Oven Emissions from Oven Doors,*[19] located in the docket for this rule.

e. Opacity From HNR B/W Stacks

We proposed a new opacity limit of 10 percent on the HNR facilities' HNR B/W stacks and to require a daily observation of all bypass or waste heat stacks during charging to determine if VE are present.

[19] *Revised Equation to Estimate Coke Oven Emissions from Oven Doors.* D.L. Jones and K. McGinn. U.S. Environmental Protection Agency, Research Triangle Park, North Carolina. August 2021. Docket ID Nos. EPA–HQ–OAR–2002–0085 and EPA–HQ–OAR–2003–0051.

4. How did the technology review change for the NESHAP for the Coke Oven Batteries source categories?

a. Fenceline Monitoring

As a result of comments, we revised the modeling procedures used to determine the fenceline action level by including additional offsite receptors in our modeling to more appropriately assess the maximum concentrations from irregular-shaped facility properties. Due to the unique layout of the coke oven sources and the elongated shape of their fencelines, the spatial resolution of the default receptor grid was not sufficient to accurately estimate the maximum ambient concentration. This change in procedures resulted in a change to the action level from 3 μg/m^3 to 7 μg/m^3 of benzene. In addition, in the final rule, we are only requiring fenceline monitoring and corrective action at ByP coke oven facilities and not at HNR facilities because the NESHAP will have sufficient monitoring of VE to ensure minimal HNR fugitive emissions and the operation of the coke ovens at HNR facilities is under negative pressure, *i.e.,* outside air and oven exhaust is pulled through ovens and into the common tunnels by suction, which effectively prevents excess fugitive emissions from these sources. Furthermore, data received from CAA section 114 information request from one HNR facility showed very low benzene at the fenceline (a maximum individual sample concentration of 0.7 μg/m^3 and an average Δc of 0.1 μg/m^3), which demonstrates the low fenceline impact from these sources. Lastly, for those facilities subject to fenceline monitoring, the EPA is providing the opportunity to develop site-specific monitoring plans (SSMP) and, when approved by the EPA, to monitor and correct for the contribution of benzene emissions from co-located sources not subject to a regulation codified in 40 CFR part 63 (such as the CBRP) and offsite emissions sources to the measured fenceline concentration. The SSMP must include: (1) identification of the near-field sources whose emissions, if approved, will be subtracted from the monitor concentrations, *i.e.,* offsite and co-located sources not subject to a regulation codified in 40 CFR part 63; (2) the impacted monitoring location(s) and the near-field source(s) that impact them; (3) the detailed data reduction criteria and calculations; (4) the details of the real-time sampling technique(s) being employed and how meteorological conditions will be measured; and (5) explanation of how monitoring data are handled during adverse conditions.

b. Lower Leak Limits for Doors, Lids, and Offtakes

We revised the proposed leak limits for doors, lids, and offtakes based on information and data obtained from a number of ByP facilities in late 2023 on the variability of leaks in daily rolling 30-day averages basis, including Cleveland Cliffs' Warren, Ohio, and Burns Harbor, Indiana, facilities, EES Coke in Michigan, and U.S. Steel Clairton in Pennsylvania; and based on additional information and data provided by email from David Alor (of COETF) on February 5, 2024 and March 22, 2024 regarding the maximum 30-day rolling averages across facilities for the period 2018–2023. These data are available in the docket for this action.

Using the available data, we compared the maximum 30-day rolling averages with the maximum annual averages and developed adjustment factors to account for variability. Then, we multiplied the adjustment factors by the maximum annual average for each door type to obtain the revised leak limits. In this final rule, we are promulgating the revised leak limits shown in table 4 and in the revised memorandum prepared for the final rule, *Technology Review for the Coke Ovens: Pushing, Quenching, and Battery Stack and Coke Oven Batteries Source Categories-Final Rule,*[20] hereafter referred to as the *Technology Review Memorandum—Final Rule.* These six revised leak limits (shown in table 4) are higher than all the maximum 30-day averages in our dataset (available in docket). Therefore, we expect facilities will be able to comply with these limits without the need for any new controls or operating costs.

TABLE 4—REVISED LEAK LIMITS FOR DOORS, LIDS, AND OFFTAKES TO ACCOUNT FOR VARIABILITY

Source, battery type, No. facilities and batteries	Current NESHAP limit	Proposed limit	Maximum annual average 2022/2023	Adjustment factor for variability	Revised leak limits for final rule	Higher or lower than proposed limit
Doors—Higher Capacity (> or = 3M ton/year), Tall Batteries [a]						
1 facility, 2 batteries	4.0%	1.5%	0.54%	4.6X	2.5%	higher.
Doors—Higher Capacity (> or = 3M ton/year), Not Tall Batteries [a]						
1 facility, 8 batteries	3.3%	1.0%	0.39%	4.4X	1.7%	higher.
Doors—Lower Capacity (< 3M ton/year), Tall Batteries						
2 facilities 3 batteries	4.0%	3.0%	2.9% [b]	1.3X	3.8%	higher.
Doors—Lower Capacity (< 3M ton/year), Not Tall Batteries						
6 facilities, 14 batteries	3.3%	3.0%	2.4%	1.3X	3.2%	higher.
Offtakes—6 facilities	2.5%	1.2%	1.3%	1.6X	2.1%	higher.
Lids—6 facilities	0.4%	0.2%	0.087%	3.7X	0.32%	higher.

[a] Tall = doors are equal to or greater than 6 meters (20 ft) in height. "Not tall" doors are doors that are not tall.
[b] This value is the average for 10 months of 2023.

c. Zero Allowable Leaks From HNR Oven Doors and Concurrent Oven or Common Tunnel Pressure Monitoring

We are not requiring pressure monitoring in both common tunnels and ovens in the final rule but instead are allowing a choice between the two as in the current rule because we did not receive any comments in support of requiring both and we received comments pointing out the expense and safety hazards of oven pressure monitoring. We are requiring the pressure monitoring in either ovens or tunnels to be performed at minimum during pushing, charging, and coking. For the final rule, we also are requiring zero leaks from HNR oven doors with daily leak testing, as determined by EPA Method 303A, along with pressure monitoring in either the common tunnels or the ovens during pushing, charging, and coking.

d. Revised Emissions Equation for Emissions From Leaking Doors

We revised the proposed equation to estimate COE emissions from leaking doors based on VE test data from two facilities that the EPA received in 2022 and combined these data with VE test results from 1981, which was when the original equation first was developed. The 2022 VE testing was performed at Cleveland Cliffs' Burns Harbor and U.S. Steel's Clairton facilities and included simultaneous yard and bench VE tests at the coal-side and coke-side of two batteries at each facility. The 1981 data also had been collected at U.S. Steel Clairton. In addition, we received a comment that the equation did not account for the case where no VE from oven doors is observed from the yard but VE from ovens is observed from the bench. A linear regression analysis of the combined 1981 and 2022 data provided a revised equation with an intercept that is only dependent on the number of doors (ND) and not dependent on yard observations and provides an estimate of emissions when yard VE is zero. The final equation is as follows:

$$\text{COE-doors (lb/hr)} = ND \times (PLD_{yard}/100) \times (0.04\ \text{lb/hr}) + ND \times (PLD_{yard}/100 \times 1.5 * PLD_{(bench\text{-}only\text{-}to\text{-}yard)} \times (0.023\ \text{lb/hr})) + 0.7/100 * ND \times (0.023\ \text{lb/hr}),$$

Where:

ND = number of doors
PLD = percent leaking doors

e. Opacity From HNR B/W Stacks

For the final rule, we revised the proposed 10 percent opacity limit for HNR B/W stacks during charging with daily testing to 20 percent and moved the requirement from the COB rule (subpart L) to the Coke PQBS rule (subpart CCCCC). We also changed the proposed daily testing requirement to weekly. For HNR facilities without continuous bypass, weekly opacity testing is only required if the bypass event continues for more than an hour.

[20] *Technology Review for the Coke Ovens: Pushing, Quenching, and Battery Stack and Coke Oven Batteries Source Categories—Final Rule.* D.L. Jones, U.S. Environmental Protection Agency, and G.E. Raymond, RTI International. U.S. Environmental Protection Agency, Research Triangle Park, North Carolina. May 1, 2024. Docket ID Nos. EPA–HQ–OAR–2002–0085–0873 and EPA–HQ–OAR–2003–0051–0682.

For HNR facilities with continuous bypass, weekly testing is required.

5. What key comments did we receive on the technology review, and what are our responses?

The key comments on the proposed results of the technology review are summarized in this section along with the EPA's responses to the comments. Other comments received on the technology review not included here are summarized along with the EPA's responses in the *Response to Comment* [21] document, which is located in the dockets to the rules.

a. Fenceline Monitoring

We received many comments on fenceline monitoring with comments both in favor of the proposed requirement and comments that were opposed to the requirements or requested significant changes.

Comment: A commenter asserted the proposed rule would exceed the EPA's authority under CAA section 112 because it would impose monitoring and a work practice standard on the CBRP, which is not a source category listed pursuant to CAA section 112(c). The commenter set forth the reasons why they believe the EPA's authority to promulgate ''emission standards'' under CAA sections 112(d) and (f) are limited to source categories listed pursuant to CAA section 112(c). The commenter stated that if fenceline monitoring is required in the final rule, sampling stations should be located so as to monitor emissions only from coke oven batteries and no other sources, and the rule should provide that both offsite and onsite non-source category sources should be subtracted out in determining compliance with any corrective action level. The commenter added that such an exercise would be complicated by the fact that benzene in COE from coke oven batteries is entrained by the hot, buoyant vertical plume rise. The EPA would also need to consider the feasibility of designing and implementing such a program, given the close proximity and size of the co-located CBRP and nearby offsite sources of benzene emissions. At U.S. Steel Clairton, for example, the CBRP is located in between the coke batteries, so isolating the impacts from the category-specific sources would be difficult, and perhaps impossible.

Response: As explained in the **Federal Register** document announcing the Petroleum Refineries NESHAP final rule (80 FR 75178) and again in the Hazardous Organic NESHAP final rule (known as the ''HON''), published on May 16, 2024 (89 FR 42932), the EPA concludes that CAA section 112(d)(6) provides the EPA with the authority to require fenceline monitoring requirements in NESHAPs. Comments on the proposal did not take issue with this fundamental authority, but rather argued only that the EPA does not have the authority to apply the work practice associated with fenceline monitoring to a non-listed source category, in this case the CBRP.

The fenceline monitoring provisions in the final rule can be thought of as consisting of two elements, one being measurement and reporting of fenceline concentrations, the other being compliance with the RCACA, the latter being the work practice element of the rule. To the extent the commenters assert that the EPA's authority is lacking in regard to the requirements to measure and report fenceline concentrations resulting from emissions from CBRPs, the EPA disagrees. By its own terms, the commenter's argument regarding the limits of CAA section 112 authority to non-listed source categories pertains only to ''emission standards,'' which as defined in CAA section 302(k) are requirements that ''limit[ ] the quantity, rate, or concentration of emissions . . .'' The commenter's own reasoning, therefore, does not suggest that the EPA may not require monitoring of non-listed CBRPs.

In any case, CAA section 114 independently provides ample authority to require monitoring of CBRPs. Relevant to the fenceline monitoring provisions of this rule, CAA section 114 gives the EPA authority to require the owner or operator of a source of emissions to monitor emissions, including by periodic sampling, either for the purpose of assisting in the development of a CAA section 112 standard, or to determine compliance with an existing CAA section 112 standard. The fenceline monitoring provisions in the final rule will serve both purposes. It will inform the EPA's consideration of whether and how to further regulate emissions from CBRP. It may also provide information relevant to determining compliance with 40 CFR part 61, subpart L applicable to CBRP. Fenceline monitoring will further these goals notwithstanding that the final rule does not require corrective action at CBRP, and also notwithstanding that coke oven facilities may seek approval of an SSMP that may reduce the likelihood of needing to perform a root cause analysis at the CBRP.

Regarding requirements pertaining to the RCACA work practice element of the rule, 40 CFR 63.314(d)(3) of the final rule provides that corrective action will not be required at sources not subject to a regulation codified in part 63. At present, CBRP are not subject to a regulation codified in part 63, and as a consequence there is no requirement to conduct corrective action at CBRP until a part 63 regulation is promulgated for that source category.

The final rule also provides an opportunity for facilities to develop an SSMP, subject to review and approval by the EPA, allowing a facility to account for the contribution to measured fenceline concentrations due to benzene emissions from offsite or co-located sources not subject to a regulation codified in 40 CFR part 63 (such as CBRP). The owner/operator may choose to develop a technically-sound monitoring plan to isolate and distinguish emissions from CBRP from other emission sources. The SSMP may be used to correct the measured concentration at impacted sample locations, thereby reducing the number of exceedances of the action level caused by the CBRP, and also reducing the number of root cause investigations pointing to the CBRP. The EPA recognizes that, similar to refineries where the correction for onsite sources is also allowed, development of a monitoring program to implement the SSMP for onsite sources is expected to be complicated. We have also extended the time for the EPA to review the SSMP to 120 days from 90 days to account for the increased complexity of SSMP as a result of the inclusion of these onsite sources. Real-time monitoring techniques, such as open-path monitoring and sensor networks, could potentially be useful to characterize emissions from such proximate sources. Further, if information from a root cause investigation demonstrates that a primary or other contributing cause of an exceedance of the corrective action level are due to emissions from a CBRP, no corrective action would be required to address those causes at the non-listed CBRP operations beyond those that may be required under current regulations (40 CFR part 61, subpart L, or other applicable regulatory requirements). For example, if during the root cause investigation the primary or other contributing cause(s) is traced to a leak, as defined by 40 CFR part 61 subpart L, in the connections or seals of a control system, that leak would be required to

[21] *Summary of Public Comments and Responses for Coke Ovens: Pushing, Quenching, and Battery Stacks Residual Risk and Technology Review, and Coke Oven Batteries Periodic Technology Review.* U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Sector Policies and Programs Division (D243–02), Research Triangle Park, North Carolina. May 1, 2024.

be repaired within 15 days as stipulated in 40 CFR 61.132(b)(3), but not as a result of the fenceline monitoring corrective action requirements. Primary and other contributing cause(s) of exceedances of the action level that are located within the facility grounds, excepting those sources not subject to a regulation codified in 40 CFR part 63, would need to be addressed. Sources that contribute to the fenceline benzene concentrations above the action level that are not subject to a regulation codified in 40 CFR part 63 may be accounted for through the SSMP.

Comment: A commenter opposed to the proposed fenceline monitoring provisions stated that they believe the proposed benzene fenceline monitoring program ''targets'' co-located CBRP and not benzene in COE from the source category coke batteries. The commenter asserts that benzene in COE from the source category coke batteries is dispersed at 90 to 200 meters above ground level due to the heat flux and vertical momentum rise (buoyancy), while benzene from CBRP operations generally remain near ground level and would more likely be measured by fenceline monitors.[22]

Response: To the extent the commenter is asserting that fenceline monitoring is not an effective means of measuring coke oven emissions, the EPA disagrees. Benzene comprises a significant portion of the COE emitted from coke oven doors, which are fugitive emissions that are released at heights considerably lower than the 90 to 200 meters mentioned by the commenter. Likewise, internal facility monitoring conducted in close proximity to the coke oven batteries at four byproduct facilities, as part of the 2022 CAA section 114 requests, identified benzene as the predominant volatile organic compound (VOC) (which includes benzene) measured in the area of the coke oven batteries and at elevated average concentrations ranging from approximately 11 µg/m^3 to 340 µg/m^3. Therefore, we maintain the position that benzene is a good surrogate for COE and that fenceline monitoring is appropriate for this type of fugitive emissions source. We also identified benzene as the predominant VOC measured in close proximity to the CBRPs at equivalent or greater concentration than was measured in close proximity to the coke oven batteries. This underscores the potential impact of these non-regulated sources such as CBRPs on the fenceline concentration at some facilities. We have revised the fenceline monitoring requirements in this final rule to provide an opportunity for a facility to develop an SSMP to determine and account for the benzene emissions from onsite sources (such as CBRPs) not currently subject to a regulation codified in 40 CFR part 63 in the calculation of Δc.

Comment: A commenter requested that the proposed fenceline monitoring requirements for HNR facilities be withdrawn and not be included in the final rule. The commenter contended that fenceline monitoring is not a new trend in facility procedures or generally in use at HNR facilities. The commenter stated that because ByP ovens operate under positive pressure, small openings or cracks in ByP ovens allow raw coke oven gas and HAPs to leak into the atmosphere. In contrast, the commenter indicated that their facility's (SunCoke's) HNR ovens operate under negative pressure and release the heat of combustion within the oven system. The commenter stated that the EPA previously acknowledged that operating the coke ovens under negative pressure virtually eliminates the risk of leakage of COE through doors or other potential leakage points. See the EPA document, ''*National Emissions Standards for Coke Oven Batteries: Background Information for Final Amendments,*'' at 21 (Mar. 31, 2005; Docket ID no. EPA–HQ–OAR–2003–0051–0232).

The commenter continued that fugitive HAP emissions monitoring conducted at one of SunCoke's plants for ten years demonstrates that there is no impact on ambient HAP levels, that any emissions are below risk-based screening levels, and that the state agency agreed with this determination. The commenter contended in determining whether to adopt fenceline monitoring requirements in the current rulemaking, the EPA selected five coke facilities—four ByP facilities and one HNR facility. The commenter asserted that the proposal inappropriately grouped ByP and HNR facilities together as subject to fenceline monitoring despite significant differences in potential for fugitive emissions.

One commenter contended the predicted maximum benzene concentrations for ByP plants range from 0.3 to 3 µg/m^3, while the predicted maximum benzene concentrations for HNR plants range from 0.00005 to 0.0003 µg/m^3. Sampling at HNR plants is predicted to yield results at about twice the MDL for the method or lower. The commenter stated that only a major malfunction at a HNR plant would ever trigger performance of a root cause analysis. The commenter stated that such an increase in emissions would be noticed by plant personnel and addressed long before the 45 days after the end of a sampling period allowed for laboratory analysis and Δc calculation. The commenter indicated that an exceedance of the proposed subpart L limits at HNR batteries, monitored by EPA Method 303A, would alert plant personnel of the need to address excess fugitive emissions in a timely manner.

Another commenter contended the EPA did not remark upon the discrepancy of benzene concentrations between ByP and HNR facilities; the benzene fenceline concentrations detected at ByP facilities were 90 to 4,000 percent higher than the levels detected at SunCoke's Haverhill facility in Franklin Furnace, Ohio. The absence of any necessity for fenceline monitoring at HNR facilities was demonstrated by the company's Haverhill facility, which performed almost 10 years of monitoring for PAH and VOCs as required by the facility's Title V operating permit. The permit called for sampling at three ambient monitoring locations near the plant (one upwind, one downwind, and one adjacent to the entry gate to the plant). The sampling was initiated when the plant was being built in late 2004, continued as the plant became operational in mid-2005, and continued until the Ohio EPA terminated the requirements for monitoring (in 2013 for PAH and in 2014 for VOC) because the HAP monitoring data demonstrated that Haverhill had no impact on ambient HAP levels and emissions were below risk-based screening levels. (Commenter cites ''Letter from Ohio EPA to Haverhill Coke Company, July 14, 2014''.)

Response: After considering these public comments and other relevant information, the EPA has decided to not finalize the requirement to require fenceline monitoring and RCACA at HNR facilities because the HNR coke ovens operate under negative pressure, *i.e.,* under suction, which causes any leaks to consist of outside air moving into the ovens rather than coke oven exhaust leaking out, and, as a result, have negligible fugitive benzene emissions. Fenceline monitoring data collected through the 2022 CAA section 114 request, which can be found in the memorandum *Fugitive Monitoring at Coke Oven Facilities,*[23] showed an HNR

[22] See email from D. Ailor, ACCCI/COETF, to D.L. Jones, EPA OAQPS, (Mar. 26, 2021, available in the docket for this rule *https://www.regulations.gov/document/EPA-HQ-OAR-2002-0085-0605.*

[23] *Fugitive Monitoring at Coke Oven Facilities.* D.L. Jones, K. Boaggio, K. McGinn, and N. Shappley, U.S. Environmental Protection Agency; and G.E. Raymond, RTI International. U.S. Environmental Protection Agency, Research Triangle Park, North Carolina. July 1, 2023. Docket

facility's fenceline benzene concentrations to be very low (a maximum individual sample concentration of 0.7 $\mu g/m^3$ and an average Δc of 0.1 $\mu g/m^3$ of benzene) during the 3 months of fenceline monitoring, especially as compared to the ByP fenceline average delta Δc values at four facilities that ranged from 3 $\mu g/m^3$ to 33 $\mu g/m^3$. Additionally, the total estimated benzene emissions from the 5 HNR facilities are quite low, estimated at 2.3 tpy year, which equates to an average of 0.5 tpy benzene per facility, on average, based on all sources at the facilities, both category and noncategory. This compares to ByP facilities that are estimated to emit 25 tpy, which equates to 3.6 tpy per facility, on average, also based on all sources at the facilities, both category and noncategory.

Comment: A commenter stated that coke plants cover large areas with substantial fenceline/perimeters where some portions when located close to communities may be more critical, and therefore, the SSMP should address certain specific information. The commenter said that the EPA should require plants to develop a SSMP that at a minimum addresses the following items:

• Physical plant boundary including each fenceline ''reach'' on a properly-drawn scaled map, showing all coke-making and related operations as well as the land uses beyond the plant, adjacent to each reach of the fenceline.

• Types of pollutants emitted by the plant—for which the starting point is the collection of 2016 and 2022 (ICR) data, as supplemented by ongoing testing. This will include a range of VOCs and HAPs, PAHs, $PM_{2.5}$ (as a surrogate for nonmercury metals), Hg, AG, etc.

• Sampling approach to initially measure all potential HAP emissions at each fenceline reach, and especially for those reaches where there is potential for community exposure if pollutants escape the plant boundary—at least for a period of 1 year.

• Potential reduction of the list of measured HAP that are potentially emitted at each fenceline reach, as needed, based on the first year of data collection.

• Proper frequency of sampling at the critical fenceline reaches. For example, if benzene or naphthalene are identified as the potential pollutants for adjacent community exposures, the plan should include continuous measurements using open path methods as opposed to periodic sorbent tube collection. Continuous measurements will provide the data on short-term variability of such impacts as opposed to a 2-week or similar average using sorbent tubes. Refineries in California have successfully implemented such continuous fenceline monitoring for many years and the EPA can readily access how these have been implemented.

• Collection of continuous meteorological data in order to assist in data evaluation—*i.e.,* to determine if the coke plant or some other source may have been the likely cause of a spike in emissions. This would eliminate the need to address upwind corrections since, depending on the meteorological data, the upwind fenceline can always be readily identified, making this correction defensible and simple.

Another commenter asked how the monitoring requirements that support the exclusion of benzene from offsite sources can be made more transparent and enforceable, particularly if the SSMP is the method for excluding benzene from offsite sources. The commenter requested that the EPA revise the proposed rule text for fenceline monitoring (40 CFR 63.314(i)(1)(ii)) accordingly to make this requirement more transparent and enforceable. The commenter suggested the following text as a replacement: ''. . . . . identify the location of the additional monitoring stations that must be used to determine the uniform background concentration and the near-field source concentration contribution. Modeling may not be used in lieu of monitoring to identify near-field sources that an SSMP applicant alleges contribute significantly to fenceline benzene levels at the applicant's facility.''

Response: The EPA disagrees with the commenter that SSMP are necessary for every facility. In the proposed rule, the EPA stipulated that an EPA-approved SSMP is required if a facility wants to account for near-field offsite upwind sources in their determination of Δc. In the final rule, this requirement is extended to accounting for onsite sources not subject to a regulation codified in 40 CFR part 63. The EPA disagrees that the additional elements suggested by the commenter are necessary for the correct implementation of fenceline monitoring. The siting criteria of EPA Method 325A are specified based on the size and shape of facility, and the location of monitors are detailed in each quarterly report. It is unclear from the comment what is meant by fenceline ''reach.'' Land uses outside of the fenceline of the facility are not necessarily known by the facility, since they are outside the control of the facility. Benzene is being used as a surrogate for COE, which encompasses many different HAP and of which benzene is the dominant HAP as indicated by fenceline monitoring and the interior facility monitoring conducted through the CAA section 114 information collection request. Continuous meteorological data is already required to be collected to correct the measured concentration to standard temperature and pressure and depending on the locality, it can be used in locating potential sources of any emissions. When an SSMP has been developed, the meteorological data can be used to account for up-wind or onsite benzene contributions. To achieve this, the meteorological data must be collected at an onsite location when an SSMP is implemented.

The EPA acknowledges the feedback from the commenter about making the language for near field source correction of upwind contributions more transparent and enforceable in the final rule. The rule requires an owner or operator to submit a SSMP to the EPA for review and approval when near-field offsite upwind sources or certain onsite sources are being accounted for. The EPA will approve or disapprove the SSMP in writing within 120 days of receiving a complete SSMP submittal. The EPA agrees with the commenter that more specificity should be provided in the SSMP and has chosen to revise the final rule to include more prescriptive language to define the requirements of the SSMP and to harmonize the approach for this rule with other NESHAPs.

Comment: Commenters stated that the EPA needs to include a more comprehensive suite of pollutants for fenceline monitoring, not just one surrogate parameter. The commenters requested that the EPA expand the initial set of target analytes.

One commenter stated the proposed rule does not include hydrogen sulfide fenceline monitoring. The commenter argued that the EPA has failed to account for its own data about how damaging these facilities are. The commenter stated that in 2018, the EPA produced a ''Geospatial Monitoring of Air Pollution Report'' (October 31, 2018) after conducting some fenceline monitoring over 6 days along one side of Middletown Works (which then had an operating coke plant). The commenter indicated that the EPA concluded ''These mobile and stationary data indicate a potential acute human health hazard.'' The commenter asserted that these hydrogen sulfide results show

ID Nos. EPA–HQ–OAR–2002–0085–0880 and EPA–HQ–OAR–2003–0051–0735.

the need for far more comprehensive fenceline monitoring.

Another commenter stated that benzene is an adequate surrogate for some HAP, but not for inorganic compounds, and indicated that the EPA should require fenceline monitoring of arsenic. This commenter requested that the EPA add a requirement for fenceline monitoring of arsenic. The commenter contended that while benzene seems to be a good indicator for hydrocarbons such as BTEX or PAH, it is not clear that it is also a surrogate for inorganic pollutants. The commenter stated that the U.S. Geological survey examined arsenic levels in coal, finding a broad range of mean concentrations from 1.5 ppm to 71 ppm, depending on the source (*https://pubs.usgs.gov/fs/2005/3152/fs2005-3152.pdf*). The commenter stated that wide differences in arsenic content were also found in a review article by Yudovich and Ketris (*https://www.sciencedirect.com/science/article/pii/S0166516204001673*). The commenter stated such differences in arsenic coal content are reflected in emission levels: A study of trace metal elements released during coal coking found differences of 600 percent in arsenic levels between different facilities, stating ''This is obvious owing to the different levels of trace elements contents in coals, depending on the coal type, origin, basin, and other factors.'' (Konieczynski J, Zajusz-Zubek E, Jablonska M. *The release of trace elements in the process of coal coking.* (*Scientific World Journal.* 2012;2012:294927. Doi: 10.1100/2012/294927). While this study refers to different facilities, such variability is expected to apply to different times within a given facility as well.

The commenter stated that the EPA identified arsenic as the leading cause for cancer and chronic health risks from COE but benzene has not been proven to be an adequate surrogate for arsenic levels. According to the commenter, adding a fenceline monitoring requirement for arsenic would be feasible and simple to implement. The commenter said that the EPA has a number of methods to determine metal concentration in ambient air that could be used for the fenceline monitoring (see *https://www.epa.gov/amtic/compendium-methods-determination-inorganic-compounds-ambient-air*). The commenter said there are a number of EPA-certified ambient air monitoring methods for metals, including arsenic, that could easily be installed and sampled on the same deployment and retrieval data collection schedule as the fenceline benzene monitors.

Response: The EPA required some facilities in the industry to conduct comprehensive fenceline monitoring as part our 2022 CAA section 114 request, which included measurement of a suite of organic HAPs. The results of this monitoring can be found in the memorandum *Fugitive Monitoring at Coke Oven Facilities* [24] The monitoring identified benzene as the most common organic HAP measured above detection level and the organic HAP with the highest concentration, making it an appropriate surrogate for fugitive emissions from coke ovens and COE. For fugitive leaks of COE, the intended use of fenceline monitoring, benzene is the chemical best suited as a surrogate for COE.

Arsenic requires a different monitoring approach with much higher costs, both for the analytical tests and for installation, and requires electricity at each sampling location. Benzene also is present in much higher concentrations in COE than arsenic; therefore, any leaking coke oven gas contains benzene and at much higher concentrations than arsenic. The EPA did not evaluate arsenic (or any other metal HAP) as part of the information requests related to fenceline monitoring. Instead, fenceline monitoring was performed at these sites to evaluate VOC/HAP emissions from fugitive sources. Although we recognize that arsenic is emitted from these facilities, the arsenic emissions are typically hot and emitted from ducted sources such as stacks at much higher elevations than the ground level of the fenceline. Therefore, we do not expect arsenic to be detected at the fenceline. The emissions from elevated, ducted sources regulated under subpart CCCCC that do not directly impact the fenceline measurements are measured at the source through periodic compliance testing required to demonstrate compliance with the MACT standards.

Lastly, hydrogen sulfide is not currently a listed HAP under CAA section 112, and so could not be considered in this rulemaking unless the EPA determined that it was a surrogate for one or more HAP emitted as fugitives from the category. We have not made such a determination.

Comment: A commenter said that the ''Δc'' calculation is not sufficient to account for offsite sources of benzene when there are significant offsite sources or when wind direction information demonstrates the impact of offsite sources on monitoring locations. The commenter requested that the EPA redesign the Δc element of the fenceline monitoring program. The commenter provided, as an example, the CAA section 114 fenceline monitoring data for the Cleveland Cliffs' Burns Harbor facility, which demonstrated that the highest benzene concentrations are associated with sources at the adjacent port facility and are not located near the coke facility.

Response: The EPA disagrees that the final rule should provide a mechanism in addition to that already incorporated in the proposed rule to take into account the impact of offsite sources. As proposed, the final rule accomplishes this not just through the Δc calculation methodology, but also through allowing the use of an SSMP. The rule states that an owner or operator may elect to submit an SSMP (for EPA review and approval), which could allow for the subtraction of upwind contributions. The final rule includes more prescriptive language to define the requirements of the SSMP. This is consistent with fenceline monitoring provisions in other NESHAPs.

Comment: Commenters stated that they believe the fenceline monitor data should be made available to the public to improve transparency. The commenters requested that the EPA provide public access to the fenceline data as it is being collected and reviewed so people can be aware of their exposure risks. A commenter requested that the fenceline data be put on a website that is easily accessible to a layperson or community member near a facility who is not aware of and has not had training on that portal. A commenter contended when action levels are exceeded, the community must be provided immediate notification of such exceedances and that reporting through the EPA's electronic reporting and data retrieval portal is not sufficient and is confusing to use. Making pollution data readily available to the public is a low-cost, efficient way to drive pollution reduction.

A commenter contended the EPA does not specify when fenceline monitoring data submitted via CEDRI will be made available to the public. The commenter said that public access to fenceline data will allow regulators to detect non-compliance earlier, and that communities would be simultaneously informed of dangerous, higher concentrations of chromium (and for lead, if the EPA includes lead in the

[24] *Fugitive Monitoring at Coke Oven Facilities.* D.L. Jones, K. Boaggio, K. McGinn, and N. Shappley, U.S. Environmental Protection Agency; and G.E. Raymond, RTI International. U.S. Environmental Protection Agency, Research Triangle Park, North Carolina. July 1, 2023. Docket ID Nos. EPA–HQ–OAR–2002–0085–0880 and EPA–HQ–OAR–2003–0051–0735.

fenceline standard, as they should) with less delay. The commenter contended that prompt public disclosure of benzene monitoring data will make the failure to collect and report such information more visible, will give regulators and communities quicker access to information about dangerous spikes in benzene levels, and will give companies a ''real time'' incentive to move quickly to clean up emission sources causing the problem.

Response: As described in the proposed rule preamble and in this preamble, the EPA is only requiring fenceline monitoring for benzene in this final rule. We decided it is not necessary or appropriate to require fenceline monitoring for lead, arsenic or any other metal HAP as part of this rulemaking. See other responses in this section for more details on this topic.

Regarding the public availability of data and monitoring locations, we are finalizing, as proposed, the requirement that the exact location of each sampling location (latitude and longitude) as well as the individual sampling results (both original results and corrected results if a monitoring location result is modified as a result of an SSMP) are included in the quarterly report at 40 CFR 63.311(j)(3) and (5). These quarterly fenceline reports will be submitted to CEDRI and subsequently be available to the public via the Web Factor Information Retrieval System (WebFIRE) (*https://www.epa.gov/electronic-reporting-air-emissions/webfire*). The fenceline monitoring data is released to WebFIRE 30 days after submittal to CEDRI to allow time for the EPA and any delegated authority to review the data prior to release. For a general discussion on the electronic reporting process, see the memorandum *Electronic Reporting Requirements for New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Rules,* available in the dockets for this action (EPA–HQ–OAR–2002–0085–0908 and EPA–HQ–OAR–2003–0051–0748).

To search for a fenceline monitoring report required by this rule, begin at the WebFIRE home page, *https://cfpub.epa.gov/webfire,* and select ''Search for Reports.'' On the following page, select ''Air Emissions Reports'' and click ''Submit Search.'' From the ''Search Criteria,'' select ''Part 63—NESHAP'', and ''NESHAP—L: Coke Oven Batteries'' from the list and click ''Submit Search''. From this page, additional search criteria can be used to narrow the search to a specific facility, either through ''Submitting Organization and/or Facility Name,'' the ''Facility Location,'' or Federal Registry Service identification ''FRS ID'', which can be found at *https://www.epa.gov/frs/frs-query.* From the results screen, individual reports can be selected or multiple reports may be selected for a bulk download, either through the link at the top of the page for all reports matching the search criteria, or for a smaller subset of results through selecting multiple reports in the ''Include Report in Bulk Download'' and clicking ''Bulk Download Selected Reports'' on the bottom of the page. Depending on the overall file size, this may take some time to download.

b. Lowered Leak Limits for Doors, Lids, and Offtakes

We received a few comments on the proposed lowered leak limits for doors, lids, and offtakes with comments both in favor of the proposed requirement and comments that were opposed to the requirements or requested significant changes.

Comment: Commenters stated that they believe the leak rate data used for new limits are not a ''development in practices, processes, and control technologies.'' Commenters requested that the EPA not finalize the proposed leak limits because the proposed rule fails to demonstrate that there have been any new cost-effective developments in leak control practices, processes, or control technologies for doors, lids, and offtakes. Further, one commenter stated they believe that the EPA does not demonstrate why coke facility production capacity is a factually sound basis for establishing differing door leak limits. The commenter requested that the EPA not finalize the proposed leak limits for doors, lids, and offtakes based on capacity. This commenter also stated they believed that the EPA offers no basis for its conclusion that ''tall'' and ''not tall'' doors should have the same leak limits at facilities with less than 3 million tpy production capacity. The commenter requested that the EPA use door height for setting door limits as in current rule for lower production capacity facilities.

Commenters contended that across the cokemaking industry, leak control for doors, lids, and offtakes is achieved through operational and maintenance work practices, not through add-on pollution controls or other equipment; and the current leak control methods existed and were considered during development of the original MACT standards [for subpart L, in 1993]. The EPA's use of new leak rate data for coke battery facilities is not based on any previously unidentified leak control work practices, operational procedures, process changes, add-on controls, or pollution prevention alternatives. Leak rate data, like other forms of emissions data, are simply information about a practice, process, or control technology. The commenters stated the EPA's approach improperly equates data showing overcompliance with existing standards as ''developments'' in leak control practices and processes. Nothing in the language of CAA section 112(d)(6) gives the EPA authority to rachet-down existing MACT floor limits based solely on data showing overcompliance with those existing limits. The commenter contended there is no explanation for why the EPA selected a 3 million tpy threshold versus some other level of coke production capacity. It is counterintuitive to presume that higher coke production capacity correlates to lower leak rates. The existing subpart L door leak standards are not based on coke production capacity; and one would expect that higher production facilities have a larger number of ovens in operation, with more cycles of charges and pushes, *etc.* All of these factors would be expected to correlate with similar or higher leak rates compared to smaller capacity facilities.

The commenter also stated that since promulgation in 1993, the subpart L door leak limits have been based on the height of the door (*i.e.,* ''tall'' doors (6 meters and taller) and ''not tall'' doors) because taller doors are more correlated with the occurrence of leaks. ''Tall'' doors have a longer perimeter length compared to ''not tall'' doors, and longer perimeters have more area where leaks can occur. For example, a 6-meter ''tall'' battery door has 43 percent more perimeter length compared to a 4.3-meter ''not tall'' door. Therefore, ''tall'' doors are expected to have higher leak rates compared to ''not tall'' doors, and the existing door leak limits reflect these differences.

The commenter contended the EPA seemingly acknowledges this by proposing different leak limits for ''tall'' and ''not tall'' doors for facilities with greater than 3 million tpy production capacity. However, the EPA offers no explanation why size of the door matters for leak limits at higher production facilities but size does not matter for lower production facilities.

Response: The EPA disagrees with the commenter that the leak rate data used for new limits are not a development in ''practices, processes, and control technologies.'' The EPA believes there is a strong basis to infer that the data acquired by the EPA in CAA section 114 requests from current coke facilities in 2016 and 2022, which showed fewer leaking doors, lids, and offtakes than that allowed under the rule, reflects improved performance due to improved work practices for observing leaks during operations, and more quickly and efficiently sealing and adjusting doors, or other practices related to door leaks. We also received additional leak data in 2023 and 2024 from a number of facilities that provide further evidence that there has been improved performance. These data are available in the docket for the final rule. There is no other known factor that correlates to reduced leak frequency or duration. As a commenter points out, these practices, broadly described, are not necessarily new. However, CAA section 112(d)(6) does not require that practices be either recently invented or recently identified. The CAA section 112(d)(6) gives the EPA authority to revise standards based upon ''developments'' in practices, which clearly can include improvements in previously existing practices and new information about the performance of those improvements. Here there is no apparent reason for lower leak rate values other than positive developments in work practices concerning detection and minimization of leaks. Industry commenters have not suggested any alternative explanation. It is therefore reasonable to infer that lower leak rate values reflect developments in work practices to control leaks. See the response to the next comment in regard to the data supporting this statement.

The lower leak rate standard for larger capacity facilities reflects the lower leak rates shown in the recent EPA Method 303 data for those operations. The commenter correctly notes that oven leak rates are not functionally related to the number of ovens at a facility; rather, leak rates depend on whether each oven is well-sealed or not. As noted above, the primary determinant of leak rates is the effectiveness of work practices to detect and minimize leaks. There is not an apparent reason for why larger capacity facilities are attaining lower leak rates other than that they are more effectively employing work practices to control leaks. Industry commenters have not suggested an alternative explanation. In this situation, the distinction based on facility size (as allowed by CAA section 112(d)(1)) reflects more effective work practices at the larger facilities. There may be, for instance, cost-related reasons why smaller capacity facilities have not employed the same work practices as larger facilities. It is reasonable to infer that a larger capacity facility may be able to invest more resources in leak control practices. Lacking a firm basis for concluding that smaller facilities can reasonably achieve the same performance as larger facilities, the EPA is finalizing the capacity-based distinction in leak rate limits supported by current measurement data.

That leak rates are primarily determined by work practices, and that work practices are not restricted to facility capacity, if anything, suggests that the lower leak rates achieved at larger capacity facilities should be achievable at smaller facilities as well. Notwithstanding such a possible inference, the EPA is setting leak rate limits at levels demonstrated to be achievable by the available data.

The EPA selected a 3 million tpy production of coke production capacity because the production of the facility in this category (nearly 5 million tpy capacity) is more than twice the capacity of the next highest facility (<2 million tons coke capacity). This is a clear break point in size between larger and smaller capacity facilities, and that break point aligns with the data showing lower leak rates at the larger facility.

Regarding the commenter's request to use door height for setting door limits for lower production capacity facilities, the EPA agrees with the commenter and is finalizing allowable door limits for both ''tall'' and ''not tall'' batteries, as described in section IV.B.4.b. of this preamble and in the *Technology Review Memorandum-Final Rule,*[25] and which reflect the current rule. Also, see the EPA's response to other comments on the revised leak limits in this section.

Comment: A commenter stated that they believed the EPA has not provided adequate information regarding what data were used and how the EPA calculated the proposed leak limits for doors, lids, and offtakes. The commenter requested that the EPA provide rationale for new leak limits for doors, lids, and offtakes. The commenter contended the *Technology Review Memorandum* identifies the proposed limits but provides little information on how the EPA derived the limits. Beyond a sentence stating that ''[t]he 2022 facility-average data showed a high of 46 percent of the standard for tall doors (standard 4.0 percent); a high of 52 percent of the standard for all other doors, *i.e.,* not tall (standard 3.3 percent); and a high of only 36 percent of the standard for foundry (standard 4.0 percent) . . .'' it is not apparent how the EPA derived any of the proposed leak limits, including the averaging time the EPA used. It is not clear if the EPA used or disregarded the 2022 ICR data in developing the proposed limits, which makes it difficult to verify the EPA's claim regarding the facility-average data.

Response: The EPA agrees with the commenter and has revised the proposed leak limits. The proposed limits were based on data described in the memorandum prepared for the proposal *Technology Review for the Coke Ovens: Pushing, Quenching, and Battery Stack and Coke Oven Batteries Source Categories,*[26] hereafter referred to as the ''*Proposal Technology Review Memorandum,*'' and specifically, Section 3.2 Current Leak Control at ByP Coke Oven Facilities and ''Table 5. Summary of ByP Facility Method 303 Performance and COE Emissions Data from 2022 Coke Section 114 Request.'' The EPA developed an annual average for 2022 each facility and each battery from the submitted monthly averages for 2022. However, we used a different approach for the final rule limits. The revised limits are based on consideration of public comments and additional facility data for rolling 30-day average leak rates received after the publication of the proposed rule, as described in section IV.B.4.b. of this preamble (*e.g.,* see table 4 in section IV.B.4.b.) and in the *Technology Review Memorandum-Final Rule.*[27]

c. Zero Allowable Leaks From HNR Oven Doors and Concurrent Oven or Common Tunnel Pressure Monitoring

We received 2 comments on requiring both zero leaks from HNR oven doors and concurrent oven and common tunnel pressure monitoring. Both commenters were not in favor of the proposed amendments to require pressure monitoring in ovens. No comments in support were received.

[25] *Technology Review for the Coke Ovens: Pushing, Quenching, and Battery Stack and Coke Oven Batteries Source Categories—Final Rule.* D.L. Jones, U.S. Environmental Protection Agency, and G.E. Raymond, RTI International. U.S. Environmental Protection Agency, Research Triangle Park, North Carolina. May 1, 2024. Docket ID Nos. EPA–HQ–OAR–2002–0085–0873 and EPA–HQ–OAR–2003–0051–0682.

[26] *Technology Review for the Coke Ovens: Pushing, Quenching, and Battery Stack and Coke Oven Batteries Source Categories.* D.L. Jones, U.S. Environmental Protection Agency, and G.E. Raymond, RTI International. U.S. Environmental Protection Agency, Research Triangle Park, North Carolina. May 1, 2023. Docket ID Nos. EPA–HQ–OAR–2002–0085–0873 and EPA–HQ–OAR–2003–0051–0682.

[27] *Technology Review for the Coke Ovens: Pushing, Quenching, and Battery Stack and Coke Oven Batteries Source Categories—Final Rule.* D.L. Jones, U.S. Environmental Protection Agency, and G.E. Raymond, RTI International. U.S. Environmental Protection Agency, Research Triangle Park, North Carolina. May 1, 2024. Docket ID Nos. EPA–HQ–OAR–2002–0085–0873 and EPA–HQ–OAR–2003–0051–0682.

Comment: A commenter stated that costly and onerous HNR oven pressure monitoring is unnecessary, burdensome, and unsafe. The commenter explained that if pressure monitors are located in the ovens, they must be manually cleaned out by maintenance personnel 2 to 3 times per week. The commenter requested that the EPA not require HNR oven pressure monitoring (in 40 CFR 63.303(a)(1)(i)) in addition to VE monitoring. The commenter contended the EPA lacks authority to require costly and onerous oven pressure monitoring for HNR oven door leaks. The commenter noted that the EPA had stated in the proposal that it ''did not identify any developments in practices, processes or control technologies,'' (88 FR 55883) and acknowledged that ''[VE] monitoring has been used as an effective surrogate for monitoring door leaks in the past.'' The commenter asserted the EPA incorrectly assumes that increased pressure monitoring is necessary to establish negative oven pressure. The EPA's proposed requirement ''to measure pressure in the ovens during the main points in the entire oven cycle to include, at minimum, during pushing, coking, and charging,'' (88 FR 55884), is inconsistent with its findings that for pushing and charging, ''no technology has been identified that demonstrates reduced emissions . . . beyond the current control technology in use.''

The commenter continued that installing and maintaining pressure monitors in each oven would be exorbitantly expensive, challenging, and unreliable. The commenter estimated costs of $3 to 4 million for every 100 ovens subject to this requirement. In addition, pressure monitors located in the ovens must be manually cleaned out by maintenance personnel 2 to 3 times per week, exposing personnel to excessive heat, which is an unnecessary safety risk. The commenter stated that SunCoke's heat recovery facilities already monitor negative pressure in the common tunnel electronically on a continuous basis and have one pressure transmitter for every seven (7) ovens in the battery on average. Monitoring for negative pressure in the common tunnel, in conjunction with monitoring for coke oven leaks throughout all stages of coking as previously described, accurately captures any time that an oven is experiencing positive pressure and allows personnel to take action in a timely and safe manner when necessary. Therefore, the commenter states that the EPA should not include these proposed changes to pressure monitoring in 40 CFR 63.303(a)(i) in the final rule.

Another commenter also stated that the EPA proposed rule includes unnecessary and redundant instrumentation to monitor HNR oven operational pressure continuously.

In regard to the proposed requirement to require zero leaks from HNR oven doors, as determined by EPA Method 303A, a commenter notes that SunCoke's work practices are already consistent with 40 CFR 63.303(c)(2) in that SunCoke monitors the ovens for the entirety of the coking cycle and responds to any observed door leaks to make adjustments to the ovens by reviewing electronic data and physically walking the coke oven batteries. Any door leaks due to positive pressure are corrected by adjusting oven uptakes, dampers, and/or sole flues, and are then recorded, and reported as required under 40 CFR 63.303(c)(2).

Response: In response to what the EPA believes to be credible concerns regarding safety hazards and costs, the EPA is not finalizing a requirement for both HNR oven and common tunnel pressure monitoring in 40 CFR 63.303(a)(1)(i). The costs of requiring both oven pressure monitoring and common tunnel monitoring would not be justifiable given the already low leak emissions from HNR ovens that will be complying with the 0 percent leaking oven doors requirement in the final rule, and the common tunnel pressure monitoring already in place at HNR facilities.

Because of the commenter's statements that due to another part of the COB rule, 40 CFR 63.303(c)(2), HNR facilities are already required to respond to oven leaks, and that all HNR facilities already ''monitor the ovens for the entirety of the coking cycle and respond to any observed door leaks to make adjustments to the ovens by reviewing electronic data and physically walking the coke oven batteries,'' we are promulgating the requirement for zero leaks from oven doors, with daily monitoring using EPA Method 303A, so that the current SunCoke practice to observe oven doors to maintain zero leaks is codified in the rule.

Therefore, in the final rule, a HNR facility is required to demonstrate and maintain zero leaks from HNR oven doors, and measure pressure in either the ovens or common tunnels to demonstrate negative pressure, minimally during charging, coking, and pushing.

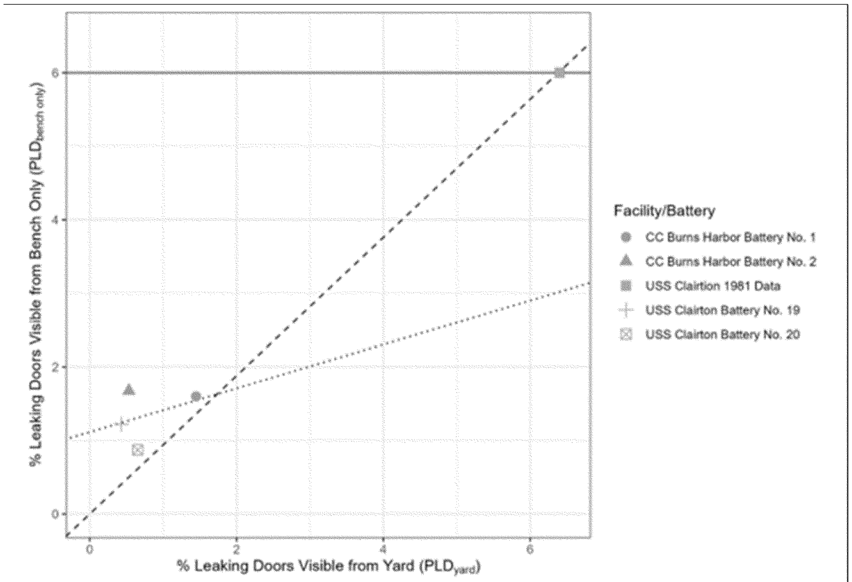
d. Revised Emissions Equation for Emissions From Leaking Doors

We received one comment on the revised emissions equation for emissions from leaking doors which suggested corrections to the equation.

Comment: A commenter stated they believe the EPA's proposed change to the equation for estimating leaks would underestimate PLD_{bench} and thus COE, and proposed an alternative equation. To test the EPA's proposed change, the commenter plotted PLD_{bench} versus PLD_{yard} (shown in this section as Commenter's Figure 1). The commenter asserted that for a valid equation the points should fall along a line with a slope of 0.94 and intercept of 0, and that because data for these four batteries in Commenter's Figure 1 are above this line, the EPA's proposed equation underestimates PLD_{bench} and thus COE.

The commenter continued that another issue is that the EPA's proposed change assumes that PLD_{bench} is zero when PLD_{yard} is zero. However, even when there are no leaks visible from the yard, there will still likely be leaks visible only from the bench. It appears a more appropriate method for estimating PLD_{bench} from PLD_{yard} is to fit a line to the data with a non- zero intercept. Doing so yields the following equation for estimating PLD_{bench} from PLD_{yard}:

$PLD_{bench} = 0.30 * PLD_{yard} + 1.11$ (Equation 1)



Commenter's Figure 1: Plot of door leak data from the EPA's CAA section 114 request with assumed current and proposed values of PLD_{bench} only.

The commenter asserted the EPA should estimate PLD_{bench} using Equation 1 ($PLD_{bench\ only} = 0.30 * PLD_{yard} + 1.11$), resulting in a more accurate estimate of PLD_{bench} only and presumably of COE.

Response: We agree with the commenter that there could be PLD from the bench, *i.e.,* PLD bench-only emissions, when PLD from the yard is zero. However, the term PLD_{bench} in the equation in the proposal materials represented emissions from the PLD from bench-only, see pg. 2 of the *Revised Equation to Estimate Coke Oven Emissions from Oven Doors* prepared for the proposal,[28] as well as the memorandum prepared for the final rule titled *Revised Equation to Estimate Coke Oven Emissions from Oven Doors-Final Rule,*[29] where it was stated that the PLD_{bench} term was the ''percent of doors with leaks only visible from the bench, assumed [previously] to be 6%''. The PLD-bench total is equal to ''PLD-bench only'' plus PLD visible from both the bench and the yard (PLD-yard). We have added subscripts for all the terms in the equation in the memorandum prepared for the final rule (and in this section) so that it is clear what emissions are being referenced.

The 2022 CAA section 114 test data submitted included only PLD from the bench, *i.e.,* bench total, and PLD from the yard. PLD-Bench-only is obtained from the PLD-Bench Total leak data, obtained via the 2022 CAA section 114 request, minus the PLD yard. To evaluate the door leak equation, the comparison should be between the ratio of PLD bench-only to the PLD yard.

The results of the analysis of CAA section 114 data submitted by Cleveland Cliffs' Burns Harbor and U.S. Steel's Clairton facilities are shown in table 5 of this section. Similar to the commenter, we combined the 1981 leak data with the 2022 leak data so as to have a more robust data set. We first determined the average ratio of PLD-bench-only to PLD-yard for both batteries from each facility, and from both coal and coke sides in the 1981 and 2022 data. These ratios were averaged together to produce a revised PLD bench-only/PLD yard ratio of 1.5 to use in the leak emissions equation. See table 6 of this section.

TABLE 5—SUMMARY OF DOOR LEAK STUDY AT CLEVELAND CLIFFS BURNS HARBOR AND U.S. STEEL'S CLAIRTON FACILITIES SUBMITTED FOR 2022 CAA SECTION 114 REQUEST

Facility	Battery ID	Coke side			Coal side		
		Average PLD			Average PLD		
		Bench (%)	Bench-only (%)	Yard (%)	Bench (%)	Bench-only (%)	Yard (%)
CC Burns Harbor	2	3.8	2.7	1.1	0.61	0.61	0.0
	1	4.4	2.6	1.8	1.7	0.61	1.1
	Facility Avg	4.1	2.7	1.4	1.1	0.61	0.53
U.S. Steel Clairton	20	1.1	0.38	0.72	1.9	1.3	0.57
	19	1.6	1.03	0.57	1.7	1.4	0.29
	Facility Avg	1.4	0.71	0.60	1.8	1.4	0.40

[28] *Revised Equation to Estimate Coke Oven Emissions from Oven Doors.* D.L. Jones and K. McGinn. U.S. Environmental Protection Agency, Research Triangle Park, North Carolina. August 2021. Docket ID Nos. EPA–HQ–OAR–2002–0085 and EPA–HQ–OAR–2003–0051.

[29] *Revised Equation to Estimate Coke Oven Emissions from Oven Doors-Final Rule.* D.L. Jones and K. McGinn. U.S. Environmental Protection Agency, Research Triangle Park, North Carolina. May 1, 2024. Docket ID Nos. EPA–HQ–OAR–2002–0085 and EPA–HQ–OAR–2003–0051.

TABLE 6—RATIOS OF PLD-YARD TO PLD-BENCH-ONLY IN 1981 AND 2022 DATA SETS AND OVERALL AVERAGES

Facility	Battery ID	Ratio PLD bench-only/PLD yard		
		Coke side	Coal side	Average
CC-Burns Harbor	2	2.6	NA [a]	
	1	1.4	0.57	
	Facility Avg	2.0	0.57	1.3
U.S. Steel Clairton	20	0.53	2.3	
	19	1.8	4.9	
	Facility Avg	1.2	3.6	2.4
1981 Data [b]				0.94
Overall Average				1.5

[a] Coal-side ratio can't be calculated because coal-side yard PLD is zero.
[b] Ratio was determined from bench-only value of 6.0 and PLD yard of 6.4 (6.0/6.4 = 0.94).

In order to determine the value for PLD-bench only when PLD yard is equal to zero, we plotted PLD yard by PLD bench-only, similar to the commenter's approach but using PLD bench-only instead of PLD bench-total. The intercept of the regression line with the y-axis is the value for PLD-bench-only when PLD yard is 0, at 0.7 percent (or a factor of 0.007). The correlation coefficient (r^2) of the regression line is 0.84, which is considered a good fit.[30] See Figure 2 in this section.

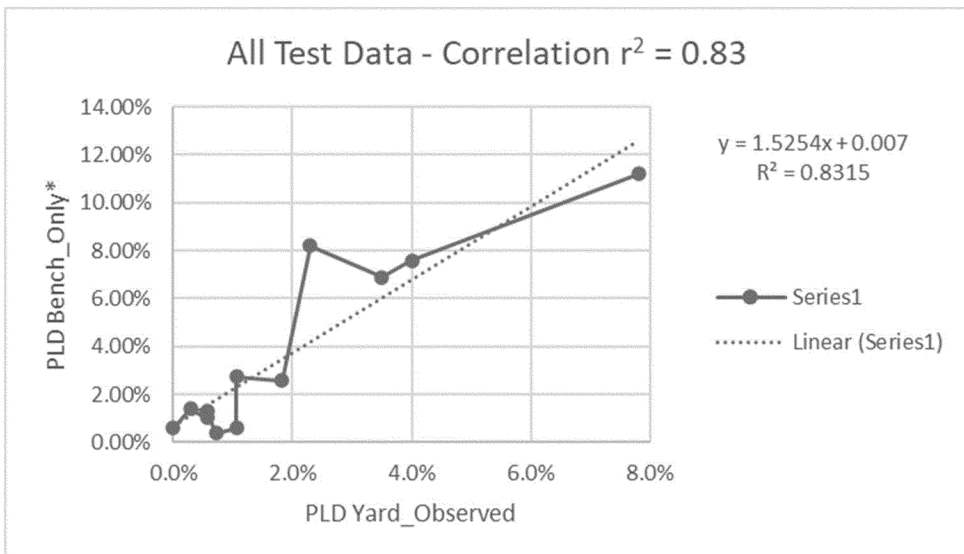


Figure 2. Regression Of 1981 And 2022 Coke Oven Method 303 Leak Data From Bench-Only And Yard

The revised door leak equation using the revised ratio of PLD-bench-only to PLD yard of 1.5 and adding a third term in the equation to represent the case where PLD-yard is equal to zero is shown below:

$$\text{COE-doors (lb/hr)} = N_D \times (PLD_{yard}/100) \times (0.04\ \text{lb/hr})$$
$$+$$
$$N_D \times ((PLD_{yard} \times 1.5_{PLDbench\text{-}only/PLDyard})/100) \times (0.023\ \text{lb/hr})$$
$$+$$
$$N_D \times 0.007 \times (0.023\ \text{lb/hr})$$

See the *Revised Equation to Estimate Coke Oven Emissions from Oven Doors—Final Rule* [31] for documentation of the revised leak limit equation for the final rule that reflects comments received and additional analyses.

e. Opacity Testing of HNR B/W Stacks

We received one comment on the proposed opacity limit for HNR B/W stacks that objected to the numerical value, the frequency of the proposed limit, and the coke NESHAP (COB) in which the limit was proposed. The comment is summarized below along with the EPA response.

Comment: The commenter stated that the EPA's redline version of its proposed amendments to subpart L includes a proposed change to 40 CFR 63.303(d)(3) to impose a 10 perent opacity limit on HNR B/W stacks. The commenter contends they are not aware of any coke plant that could meet the proposed limit. According to the commenter, the permits and state

[30] Davide, C., M.J. Warrens, and G. Jurman. *The coefficient of determination R-squared is more informative than SMAPE, MAE, MAPE, MSE and RMSE in regression analysis evaluation. PeerJ Comput Sci.* 2021; 7: e623. Published online 2021 Jul 5. doi: 10.7717/peerj-cs.623. July 5, 2021. *https://peerj.com/articles/cs-623/.*

[31] *Revised Equation to Estimate Coke Oven Emissions from Oven Doors-Final Rule.* D.L. Jones and K. McGinn. U.S. Environmental Protection Agency, Research Triangle Park, North Carolina. May 1, 2024. Docket ID Nos. EPA–HQ–OAR–2002–0085 and EPA–HQ–OAR–2003–0051.

regulatory authorities already limit VE from the HNR B/W stacks to 20 percent opacity. As demonstrated by the performance testing conducted and the deviation reports submitted in response to the EPA's CAA section 114 request, the commenter stated that SunCoke is in substantial compliance with the existing opacity limits for the HNR B/W stacks. When this equipment is in operation, SunCoke personnel monitor opacity from the HNR B/W stacks and adjust oven dampers to minimize or eliminate VE if present to ensure compliance with the existing opacity limits. At SunCoke's Jewell facility, which is the only facility where the waste heat stacks operate on a continuous basis, an equivalent weekly monitoring requirement is already established by its CAA Title V requirement. The commenter stated more frequent monitoring is not necessary, citing Jewell's vast history of complying with its opacity limit.

The commenter also stated that it would not be appropriate to establish a daily [opacity] observation requirement at heat recovery facilities because the bypass stacks do not operate on a continuous basis. Because venting at SunCoke's heat recovery facilities can be brief and intermittent, imposing such a requirement any time the bypass vent stacks are in operation would result in greater environmental harm because it would extend the duration of venting to allow SunCoke sufficient time to dispatch certified personnel to the appropriate location in the plant to conduct readings per EPA Method 9. The commenter, therefore, urged the EPA to not include its proposed changes to 40 CFR 63.303(d)(3) in the final rule, and stated that including these changes would be unnecessary, arbitrary and capricious. Moreover, SunCoke notes that the EPA is attempting to regulate the same source—bypass/HNR B/W stacks—as part of two different source categories, subparts L and CCCCC. The commenter also stated that the EPA lacks authority to impose the proposed new opacity limit and the related requirements, arguing that the EPA had not shown these requirements are ''necessary,'' taking into account developments in practices, processes, and control technologies. See 42 U.S.C. 7412(d)(6) (requiring the EPA to ''review, and revise as necessary (taking into account developments in practices, processes, and control technologies), emission standards promulgated under this section''); 88 FR 55883 (the EPA ''did not identify any developments in practices, processes or control technologies'') (emphasis added).

Response: We agree with the commenter that daily testing from HNR bypass to achieve 10 percent opacity is not demonstrated and that 20 percent opacity is a limit that has been established as a feasible limit for HNR B/W stacks via an existing facility's permit. We also agree that the intermittent nature of the HNR B/W events could prevent HNR facilities from testing under EPA Method 9 and also could unnecessarily extend the bypass event in order to perform the testing.

Based on the comments received, we are finalizing a 20 percent opacity limit for HNR B/W stack, pursuant to a CAA section 112(d)(6) technology review of the PQBS NESHAP, to be measured weekly when a bypass event occurs for more than one continuous hour to allow sufficient time to ascertain whether the bypass event will last long enough to test opacity with EPA Method 9 and, if so, to dispatch personnel qualified to perform EPA Method 9 to the B/W stack. When there is at least one bypass event during any week that last for at least one hour, the weekly opacity testing requirement applies. This condition is important for the four HNR facilities that do not have continuous bypass. The one HNR facility with continuous bypass will be able to test anytime during each week. We agree with the commenter that the revised opacity requirements for HNR B/W stacks should be included as part of the technology review pursuant to CAA section 112(d)(6) under 40 CFR part 63, subpart CCCCC.

6. What is the rationale for our final approach for the technology review?

a. Coke Oven Leak Limits

The leak limits being finalized for doors, lids, and offtakes reflect changes from the proposed rule based on information obtained from a number of ByP facilities on the variability of leaks on daily rolling 30-day average basis. Using the available data, we compared the maximum 30-day rolling averages with the maximum annual averages and developed adjustment factors to account for variability. Then, we multiplied the adjustment factors by the maximum annual average for each leak type. We are promulgating these revised leak limits (shown in table 4 of this preamble). Available data demonstrate that these limits reflect current performance of facilities and are, therefore, achievable. The current performance reflects improvements in work practices, specifically practices designed to enhance prevention, detection, and remediation of leaks and, therefore, constitute a ''development'' for purposes of CAA section 112(d)(6).

b. Fenceline Monitoring Requirements

We revised the modeling procedures to incorporate irregular-shaped facility properties after considering public comments. This resulted in a change in the action level from 3 $\mu g/m^3$ to 7 $\mu g/m^3$. This action level reflects emissions from the whole site and takes into account all emissions from the coke oven facilities. In addition, in the final rule we are requiring fenceline monitoring and corrective action only at ByP coke oven facilities and not at HNR facilities because the HNR facilities operate under negative pressure, already have very low fugitive benzene emissions, and the NESHAP requires monitoring to ensure no fugitive emissions at HNR facilities. Furthermore, in this final rule, the EPA is providing an opportunity for facilities to develop SSMPs to account for the contribution to the fenceline monitoring by benzene emissions from co-located sources that are not currently subject to regulation under CAA section 112 (such as the non-listed CBRPs).

c. Zero Allowable Leaks From HNR Oven Doors and Negative Pressure Monitoring in Ovens or Tunnels

We are not requiring pressure monitoring in both ovens and common tunnels in the final rule for COB because we did not receive any comments in support of requiring both and we received information on the cost and other problems with installing and maintaining oven monitors. We received two comments describing the redundance of requiring both as well as description of the safety problems with using pressure monitors within ovens. In the final rule, we are requiring both zero leaks from HNR oven doors and pressure monitoring in either ovens or common tunnels. From the comments received, we learned that HNR facilities already monitor ovens to ensure there are no leaks, so the final rule codifies this practice. The compliance date for zero leaking oven doors and pressure monitoring at HNR facilities is July 7, 2025.

d. Revised Emissions Equation for Doors

We revised the proposed equation to estimate COE emissions from leaking doors based on VE test data received from two facilities that was obtained by the EPA in 2022 and combined these data with VE test results from 1981, which was when the equation first was developed. In addition, we received a comment that the equation did not account for the case where no VE from oven doors is observed from the yard but VE from ovens is observed from the bench. A linear regression analysis of the combined 1981 and 2022 data provided a revised equation that reflects these data and addresses the comments.

e. Opacity Limits for HNR B/W Stacks

We are finalizing a 20 percent opacity limit for HNR B/W stacks under the PQBS NESHAP because this limit is currently required and achieved at the one HNR facility with continuous bypass and because the opacity limit in the rule will ensure continued compliance for this source as well as the other HNR B/W sources with intermittent bypass. We are requiring weekly testing for HNR waste heat stacks, which operate continuously. For HNR bypass stacks, which operate intermittently, testing is required weekly if and when bypass occurs longer than one hour so as to enable testing using the procedures in EPA Method 9 and so as to not prolong emitting bypass exhaust solely for the purpose of testing. The compliance date for opacity limit on HNR B/W stacks is July 7, 2025.

C. CAA Sections 112(d)(2) and (3) for the NESHAP for Coke Ovens: Pushing, Quenching, and Battery Stacks Source Category

1. What did we propose pursuant to CAA sections 112(d)(2) and (3) for the NESHAP for Coke Ovens: Pushing, Quenching, and Battery Stacks source category?

a. MACT Limits

Consistent with the *LEAN* decision,[32] we proposed 17 [33] new MACT floor limits for unregulated HAP and processes based on available test data, as follows:

- Pushing: AG, HCN, Hg, PAHs;
- ByP battery combustion: AG, HCN, Hg, nonmercury HAP metals;
- HNR HRSG main stack: AG, Hg, nonmercury HAP metals, PAHs; and
- HNR HRSG bypass/waste heat stacks: AG, Hg, formaldehyde, nonmercury HAP metals, and PAHs.

Based on the data we had at proposal, we expected all sources could meet the 17 [34] new MACT floor limits without additional controls. Compliance testing was the only costs that EPA anticipated would be associated with the proposed rule for testing. More details are provided in the August 16, 2023, proposed rule preamble (88 FR 55858).

b. BTF Standards at HNR Facilities Without HRSG

We proposed BTF limits for Hg and non-Hg particulate matter (PM) HAP metals at HNR facilities without HRSG based the addition of baghouses and activated carbon injection (ACI). More details are provided in the August 16, 2023, proposed rule preamble.

2. How did the amendments pursuant to CAA sections 112(d)(2) and (3) change for the NESHAP for Coke Ovens: Pushing, Quenching, and Battery Stacks and the NESHAP for Coke Oven Batteries source categories?

a. MACT Limits

We are finalizing 17 new MACT floor-based standards [35] for unregulated HAP and processes that were previously identified in the August 2023 proposed rule. Some of the proposed 17 emission limits changed in the final rule to reflect additional data submitted by coke oven facilities since the limits were developed for the August 2023 proposal, and also from comments received on standardizing limits in gr/dscf to a specific oxygen concentration. The MACT limits, as revised, include: (1) HNR main stack limits for AG, Hg, PAH, and PM (as a surrogate for non-Hg metal HAP) based on additional data, and to standardize all limits to 10 percent oxygen; (2) HNR Bypass stack limits based on additional data for Hg and PM, and to standardize all limits to 10 percent oxygen; (3) revised limits for battery stacks based on additional data for AG, HCN, and Hg, and to standardize the proposed PM limits to 10 percent oxygen; and (4) revised limits for AG, HCN, and PAH for pushing based on additional data.

In addition to the 17 MACT floor limits described above, during the EPA's review of this Coke Ovens RTR final rule, we realized that we did not propose standards for eight additional HAP and process combinations. As a result, the EPA also is finalizing a MACT work practice standard based on ''good combustion practices'' in battery waste heat flues to address the organic HAP emissions of D/F, PAH, and VOHAP from battery stacks. In addition, we are finalizing surrogate standards for five additional HAP and process combinations for which many, but not all, test runs were below the detection limits (BDL), as follows: D/F, formaldehyde, and VOHAP from pushing; formaldehyde from HNR main stacks; and VOHAP from HNR B/W stacks.

The additional eight unregulated HAP and process described in this section were documented in the memorandum *Maximum Achievable Control Technology Standard Calculations, Cost Impacts, and Beyond-the-Floor Cost Impacts for Coke Ovens Facilities under 40 CFR part 63, Subpart CCCCC* prepared for the proposal, hereafter called the ''*Proposal MACT/BTF Memorandum,''* [36] which was located in the docket for the proposed rule (Docket ID Item No. EPA–HQ–OAR–2002–0085–0859) and has been available since publication of the proposal in August 2023.

Although the test data for the 17 HAP [37] for which MACT floor emissions limits were proposed included some measurements that were BDL, the majority of test runs were above the detection limits. With regard to the eight additional HAP and process combinations identified for this final rule, many of the test runs were BDL and seven of the eight had a majority of test runs BDL. For all eight HAP and process combinations, emissions are low.

To address this issue, we are promulgating work practice standards pursuant to CAA section 112(h) for battery stacks based on ensuring good combustion in battery waste heat flues for D/F, PAH, and VOHAP emissions from battery stacks since it is not economically and technically feasible to

[32] *Louisiana Environmental Action Network* v. *EPA,* 955 F.3d 1088 (D.C. Cir. 2020).

[33] Note, we erroneously reported that there were 15 new MACT floor limits in the August 2023 proposal preamble. This was a typographic error. The proposed rule included 17 new MACT floor limits and 2 BTF limits; the BTF limits are not included in the final rule. However, we are adding a work practice standard in this final rule so the count of standards is now 18.

[34] Note, we erroneously reported that there were 15 new MACT floor limits in the August 2023 proposal preamble. This was a typographic error. The proposed rule included 17 new MACT floor limits and 2 BTF limits; the BTF limits are not included in the final rule. However, we are adding a work practice standard in this final rule so the count of standards is now 18.

[35] Note, we erroneously reported that there were 15 new MACT floor limits in the August 2023 proposal preamble. This was a typographic error. The proposed rule included 17 new MACT floor limits and 2 BTF limits; the BTF limits are not included in the final rule. However, we are adding a work practice standard in this final rule so the count of standards is now 18.

[36] *Maximum Achievable Control Technology Standard Calculations, Cost Impacts, and Beyond-the-Floor Cost Impacts for Coke Ovens Facilities under 40 CFR part 63, Subpart CCCCC—Proposed Rule.* D. L. Jones, U.S. Environmental Protection Agency, and G. Raymond, RTI International. U.S. Environmental Protection Agency, Research Triangle Park, North Carolina. May 1, 2023. Docket ID Nos. EPA–HQ–OAR–2002–0085 and EPA–HQ–OAR–2003–0051.

[37] Note, we erroneously reported that there were 15 new MACT floor limits in the August 2023 proposal preamble. This was a typographic error. The proposed rule included 17 new MACT floor limits and 2 BTF limits; the BTF limits are not included in the final rule. However, we are adding a work practice standard in this final rule so the count of standards is now 18.

reliably measure emissions of these HAP, as evidenced by the large percent of test runs that are BDL. For the other five HAP and process combinations, we are finalizing a determination that three of the 17 MACT floor emission limits serve as surrogates for these five HAP and process combinations, and that the five HAP are subject to these surrogate limits. This is shown in table 7. The limits themselves are not changing otherwise as a result of this surrogacy determination. The EPA has used all data available to set valid and appropriate standards and address these eight unregulated HAP. Recognizing that additional data would further support appropriate regulation of these HAP, the Agency intends to obtain additional data, and in a separate, future action use that data to ensure the appropriateness of these standards.

The three additional emission standards and one work practice standard apply as follows: (1) the final limits for PAH for pushing serve as a surrogate for all other organic HAP for pushing, including D/F, VOHAP, and formaldehyde (all had greater than 55 percent of test runs BDL); (2) the final limits for PAH from HNR HRSG main stacks serve as a surrogate for all organic HAP from this source, including formaldehyde, for which greater than 25 percent of test runs were BDL and from very limited data (only one test report from one facility); (3) the final limits for formaldehyde from HNR HRSG B/W stacks serve as a surrogate for VOHAP from B/W stacks (for which greater than 55 percent of test runs were BDL); and (4) a work practice standard of ''good combustion practices'' during ByP waste heat combustion in battery flues to minimize organic HAP emissions from battery stacks, including PAH, D/F and VOHAP.

The good combustion work practice standards require owners or operators to identify and implement a set of site-specific good combustion work practices for each battery. These good combustion work practices should correspond to the facility's standard operating procedures for maintaining the proper and efficient combustion within battery waste heat flues. Good combustion work practices include, but are not limited to, the following:

- Proper operating conditions for each battery (*e.g.,* minimum combustion temperature, burner alignment, or proper fuel-air distribution/mixing).
- Routine inspection and preventative maintenance and corresponding schedules of each battery.
- Performance analyses of each battery.
- Maintaining applicable operator logs.
- Maintaining applicable records to document compliance with each element.

The work practice standards to minimize organic HAP emissions from battery stacks are being finalized under CAA section 112(h) because the EPA has determined that it is not feasible to prescribe or enforce an emissions standard. Sections 112(h)(1) and (h)(2)(B) of the CAA provide the EPA with the discretion to adopt a work practice standard rather than a numeric standard when ''the application of measurement methodology to a particular class of sources is not practicable due to technological and economic limitations.'' The ''application of measurement methodologies'' (described in CAA section 112(h)(2)(B)) means not only conducting a measurement, but also that a measurement has some reasonable relation to what the source is emitting (*i.e.,* that the measurement yields a meaningful value). That is not the case here, where a clear majority of values are BDL using best available technology.

With regard to surrogacy limits, we conclude that PAHs are a good surrogate for the other organic HAP (including D/F, VOHAP and formaldehyde) for the pushing operation because the relative amount of emissions of the other organic HAP due to the high temperature thermal distillation process in coke ovens which are expected to be emitted at a similar degree as PAHs. Regarding the HNR HRSG main stacks, PAHs are a good surrogate for formaldehyde and other organic HAP because the afterburners that facilities use to combust any remaining organic HAP in the oven exhaust are expected to control these organic HAP to similar levels as PAH. Likewise, formaldehyde is a good surrogate for VOHAP for HNR B/W stacks for the same reason (*i.e.,* the afterburners are expected to control VOHAP to a similar degree as formaldehyde).

We also conclude that the additional work practice standard and surrogacy determinations will not result in any new control costs or compliance testing costs.

The 17 MACT floor emissions limits,[38] one MACT work practice standard based on good combustion practices, and five HAP and process combinations for which surrogacy determinations have been made are shown in table 7 of this section. For additional discussion and documentation of these final MACT standards, see the memorandum *Maximum Achievable Control Technology Standard Calculations, Cost Impacts, and Beyond-the-Floor Cost Impacts for Coke Ovens Facilities under 40 CFR part 63, subpart CCCCC—Final Rule,*[39] hereafter referred to as the ''*Final Rule MACT/BTF Memorandum,*'' which is available in the docket for this rule.

TABLE 7—MACT STANDARDS FOR PQBS SOURCES IN THIS FINAL RULE

Source or process	Pollutant	Type of affected source (new or existing)	
		Existing	New
Pushing	AG	0.013 lb/ton coke [UPL]	5.3E–04 lb/ton coke [3xRDL].
	HCN	0.0015 lb/ton coke [UPL]	3.8E–05 lb/ton coke [UPL].
	Hg	8.9E–07 lb/ton coke [UPL]	5.1E–07 lb/ton coke [3xRDL].
	PAH [a]	4.0E–04 lb/ton coke [UPL]	1.4E–05 lb/ton coke [UPL].

[38] Note, we erroneously reported that there were 15 new MACT floor limits in the August 2023 proposal preamble. This was a typographic error. The proposed rule included 17 new MACT floor limits and 2 BTF limits; the BTF limits are not included in the final rule. However, we are adding a work practice standard in this final rule so the count of standards is now 18.

[39] *Maximum Achievable Control Technology Standard Calculations, Cost Impacts, and Beyond-the-Floor Cost Impacts for Coke Ovens Facilities under 40 CFR part 63, subpart CCCCC—Final Rule.* D. L. Jones, U.S. Environmental Protection Agency, and G. Raymond and Michael Laney, RTI International. U.S. Environmental Protection Agency, Research Triangle Park, North Carolina. May 1, 2024. Docket ID Nos. EPA–HQ–OAR–2002–0085 and EPA–HQ–OAR–2003–0051.

TABLE 7—MACT STANDARDS FOR PQBS SOURCES IN THIS FINAL RULE—Continued

Source or process	Pollutant	Type of affected source (new or existing)	
		Existing	New
	D/F, formaldehyde, VOHAP.	Meet applicable PAH limits and requirements of 40 CFR 63.7290(e).	
Battery Stack	AG	0.160 lb/ton coke [UPL]	0.013 lb/ton coke [UPL].
	D/F, PAH, VOHAP.	"Good combustion" work practices in battery waste heat combustion flues and meet requirements of 40 CFR 63.7300(c)(4).	
	HCN	0.032 lb/ton coke [UPL]	7.4E–04 lb/ton coke [UPL].
	Hg	4.5E–05 lb/ton coke [UPL]	7.1E–06 lb/ton coke [UPL].
	PM	0.13 PM gr/dscf @10% O_2 [UPL]	0.013 gr/dscf @10% O_2 [UPL].
HNR HRSG Main Stack	AG	0.049 gr/dscf @10% O_2 [UPL]	0.0034 gr/dscf @10% O_2 [UPL].
	Formaldehyde	Meet applicable PAH limit and requirements of 40 CFR 63.7297(d).	
	Hg	3.0E–06 gr/dscf @10% O_2 [UPL]	1.5E–06 gr/dscf @10% O_2 [UPL].
	PAH[b]	4.8E–07 gr/dscf @10% O_2 [UPL]	4.7E–07 gr/dscf @10% O_2 [UPL].
	PM	0.0049 gr/dscf @10% O_2 [UPL]	8.8E–04 gr/dscf @10% O_2 [UPL].
HNR B/W Stack	AG	0.12 gr/dscf @10% O_2 [UPL]	0.093 gr/dscf [UPL].
	Formaldehyde[c]	0.0012 gr/dscf @10% O_2 [UPL]	1.8E–05 gr/dscf @10% O_2 [UPL].
	Hg	1.2E–05 gr/dscf @10% O_2 [UPL]	8.6E–06 gr/dscf @10% O_2 [UPL].
	PAH	2.7E–06 gr/dscf @10% O_2 [UPL]	2.7E–06 gr/dscf @10% O_2 [UPL].
	PM	0.032 gr/dscf @10% O_2 [UPL]	0.022 gr/dscf @10% O_2 [UPL].
	VOHAP	Meet applicable formaldehyde limits and requirements of 40 CFR 63.7298(e).	

[a] Serves as a surrogate for other organic HAP including D/F, formaldehyde and VOHAP.
[b] Serves as a surrogate for other organic HAP including formaldehyde.
[c] Serves as a surrogate for VOHAP.
Note: gr/dscf = grains per dry standard cubic feet. RDL = representative detection level. UPL = upper prediction limit.

Based on consideration of public comments and our revised cost estimates, the EPA is not promulgating the BTF standards for HNR facilities without HRSG. Instead, these units will need to comply with the same MACT floor standards that the EPA is promulgating for HNR HRSG bypass stacks for facilities with HRSG.

3. What key comments did we receive on the amendments pursuant to CAA sections 112(d)(2) and (3), and what are our responses?

We received many comments on the proposed MACT and BTF standards with comments in favor of the proposed limits, comments requesting more stringent limits, and comments that were opposed to the proposed requirements. The key comments on the proposed amendments developed pursuant to CAA sections 112(d)(2) and (3) are summarized in this section along with the EPA's responses to the comments. Other comments received on these proposed amendments are summarized along with the EPA's responses in the *Response to Comment*[40] document, which is located in the dockets for these rules.

Comment: A commenter stated that they believe the EPA is not required by CAA section 112(d) or by the *LEAN*[41] court decision to set new ''gap filling'' MACT floors when the cost of control is extreme and the benefit of further emission reduction is minimal due to very low risk to public health. The commenter requested the EPA consider the cost of meeting the proposed MACT standards as well as the non-air quality health and environmental impacts and energy requirements of doing so. The commenter asserted the following reasons for why they believe the EPA is not required to set new ''gap filling'' MACT floors for existing sources:

- Further reductions of these pollutants are not necessary due to very low risk of the source category;
- Controlling these pollutants has not been demonstrated for sources like ByP battery stacks;
- The cost of adding controls would be exorbitant; and
- The new standards would not be cost effective due to the extreme cost of controls and the minimal reductions in these pollutants that would be achieved.

The commenter urged the EPA to reconsider its long-held interpretation that costs are not considered in setting the MACT floor. The commenter argued that interpretation is not reasonable in the context of a setting *LEAN*[42] ''gap-filling'' MACT standards where the cost of control is extreme and the benefit of further emission reduction is minimal due to very low risk to public health. The commenter believes all relevant factors should be considered in that context, including ''the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements.''

The commenter also asserted that the EPA erred in calculating MACT floors for existing sources based on actual emissions performance rather than on enforceable limitations to which existing sources are subject. The commenter argues this contravenes the plain language of CAA section 112(d)(3), which requires the MACT floor to be based on the ''average emission limitation achieved ''by the best performing sources.''

Response: Regarding the assertion that the assessment of risk should affect

[40] *Summary of Public Comments and Responses for Coke Ovens: Pushing, Quenching, and Battery Stacks Residual Risk and Technology Review, and Coke Oven Batteries Periodic Technology Review.* U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Sector Policies and Programs Division (D243–02), Research Triangle Park, North Carolina. May 1, 2024.

[41] *Louisiana Environmental Action Network* v. *EPA,* 955 F.3d 1088 (D.C. Cir. 2020).

[42] *Louisiana Environmental Action Network* v. *EPA,* 955 F.3d 1088 (D.C. Cir. 2020).

whether gap-filling standards are required consistent with the *LEAN*[43] decision, the EPA disagrees. The EPA has an independent statutory authority and obligation to conduct the technology review separate from the EPA's authority to conduct a residual risk review. The EPA's finding that there is an ample margin of safety under the residual risk review in no way obviates the EPA's obligation to require more stringent standards under the technology review where developments warrant such standards. The D.C. Circuit has recognized the CAA section 112(d)(6) technology review and 112(f)(2) residual review are ''distinct, parallel analyses'' that the EPA undertakes ''[s]eparately.'' *Nat'l Ass'n for Surface Finishing* v. *EPA,* 795 F.3d 1, 5 (D.C. Cir. 2015). In other recent residual risk and technology reviews, the EPA determined additional controls were warranted under technology reviews pursuant to CAA section 112(d)(6) although the Agency determined additional standards were not necessary to maintain an ample margin of safety under CAA section 112(f)(2).[44] The EPA has also made clear that the Agency ''disagree[s] with the view that a determination under CAA section 112(f) of an ample margin of safety and no adverse environmental effects alone will, in all cases, cause us to determine that a revision is not necessary under CAA section 112(d)(6).'' [45] While the EPA has considered risks as a factor in some previous technology reviews,[46] that does not compel the Agency to do so in this rulemaking. Indeed, in other instances, the EPA has adopted the same standards under both CAA sections 112(f)(2) and 112(d)(6) based on independent rationales where necessary to provide an ample margin of safety and because it is technically appropriate and necessary to do so, emphasizing the independent authority of the two statutory provisions.[47]

The language and structure of CAA section 112 further underscores the independent nature of these two provisions. While the EPA is only required to undertake the risk review once (8 years after promulgation of the original MACT standards), it is required to undertake the technology review multiple times (every 8 years after promulgation of the original MACT standard). That Congress charged the EPA to ensure an ample margin of safety through the risk review, yet still required the technology review to be conducted on a periodic basis, demonstrates that Congress anticipated that the EPA would strengthen standards based on technological developments even after it had concluded that the revision was not warranted under CAA section 112(f) . This provision's CAA section 112's overarching charge to the EPA to ''require the maximum degree of reduction in emissions of the hazardous air pollutants subject to this section (including a prohibition on such emissions)'' further demonstrates that Congress sought to minimize the emission of hazardous air pollution wherever feasible independent of a finding of risk.

When the EPA sets MACT standards pursuant to the *LEAN*[48] decision to fill regulatory gaps during a CAA section 112(d)(6) technology review, it must do so without consideration of risk. To the extent the commenter asserts that considerations of risk are relevant at this stage and that the process for setting MACT standards should be approached differently in the CAA section 112(d)(6) context than during the initial promulgation of standards for a source category, we disagree. The CAA section 112(d) clearly outlines the approach the EPA must follow in setting MACT standards. The EPA is finalizing 23 MACT standards that address 25 previously unregulated pollutants and source combinations at the MACT floor level of control pursuant to CAA section 112(d)(3) or 112(h), and as discussed elsewhere in the preamble and in the preamble to the proposal, Congress set forth a prescriptive and clear process that the EPA must follow in determining the MACT floor; that process does not include consideration of risk. Nothing in either the statute or the *LEAN*[49] decision suggests that MACT floors are to be calculated differently subsequent to a CAA section 112(f) risk review.

The EPA also disagrees that the CAA allows the EPA to take costs into consideration in determining MACT floors. The D.C. Circuit has ruled that costs are not to be considered when setting MACT floor standards. In *Nat'l Lime Ass'n* v. *EPA,* 233 F.3d 625 (D.C. Cir. 2000) (''*Nat'l Lime*''), the Court clearly stated that cost should only be considered when evaluating whether ''beyond the floor'' emission standards should be adopted: . ''*Cost, however, may be taken into account only in considering beyond-the-floor emissions limitations,*'' and that ''*cost may not influence the determination of a MACT floor,*'' which depends exclusively upon the emissions reductions achieved by the best-performing sources. *Id.* at 640 (emphasis added).

Requiring the consideration of costs in setting the MACT floor would conflict with the plain language of CAA section 112(d)(3). Section 112(d)(3) of the CAA provides that the emission standards developed under this section ''*shall* not be less stringent than'' the emission performance of the best controlled similar source, for new sources; and ''*shall* not be less stringent, and may be more stringent than'' the emission performance of the top 12% of existing sources for categories with more than 30 sources, or the top 5 sources for categories with fewer than 30 sources, for existing sources. This language provides a clear mandate and does not indicate discretion to consider cost.

We note in this context that for the Coke PQBS source category, based on the data submitted to the EPA by the industry, all facilities should be able to meet the MACT floor limits developed for the previously unregulated HAP and unregulated sources of HAP without the installation of additional controls. Commenters who raised claims of exorbitant costs to meet the new MACT floors did not provide any additional data contradicting the EPA's findings; thus, the EPA does not find any support for these claims.

Regarding the commenter's claim that the MACT floors must be based on emissions legally allowed rather than actual performance, the D.C. Circuit has spoken to this issue several times, including in *Nat'l Lime,* where the court stated that the MACT floor depends exclusively on the emissions reductions ''achieved'' by the best-performing

[43] *Louisiana Environmental Action Network* v. *EPA,* 955 F.3d 1088 (D.C. Cir. 2020).

[44] See, *e.g., National Emission Standards for Hazardous Air Pollutants: Refractory Products Manufacturing Residual Risk and Technology Review.* (86 FR 66045). November 19, 2021; *National Emission Standards for Hazardous Air Pollutants: Generic Maximum Achievable Control Technology Standards; and Manufacture of Amino/Phenolic Resins.* (79 FR 60898, 60901). October 8, 2014.

[45] *National Emission Standards for Hazardous Air Pollutant Emissions: Group I Polymers and Resins; Marine Tank Vessel Loading Operations; Pharmaceuticals Production; and the Printing and Publishing Industry.* (76 FR 22566, 22577). April 21, 2011.

[46] See, *e.g., National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry.* (71 FR 76603, 76606). December 21, 2006. *See also Proposed Rules: National Emission Standards for Halogenated Solvent Cleaning.* (73 FR 62384, 62404). October 20, 2008.

[47] *National Emissions Standards for Hazardous Air Pollutants: Secondary Lead Smelting,* 77 FR 556, 564). January 5, 2012.

[48] *Louisiana Environmental Action Network* v. *EPA,* 955 F.3d 1088 (D.C. Cir. 2020).

[49] *Louisiana Environmental Action Network* v. *EPA,* 955 F.3d 1088 (D.C. Cir. 2020).

sources rather than the standard of ''achievability.'' In *Sierra Club* v. *EPA*, 167 F.3d 658, 662–64 (D.C. Cir 1999), the court found that the individual emission levels set by EPA for MACT standards pursuant to CAA section 129 could not be supported because the emissions limitations that the EPA relied upon to set the numeric floor for each pollutant did not appear to reflect the actual individual pollutant emission levels being achieved by the best performing sources.[50] The court remanded the standards to better explain how the emissions limitations represented the actual performance of the best units or to, instead, use more reliable data. Because the EPA could not explain the original use of the emission limitations, on remand, the agency used actual performance data to establish the final standards. When the D.C. Circuit reviewed the EPA's approach in response to the remand, it found the Agency's use of the actual emissions data in lieu of the permit limits reasonable. *See Medical Waste Inst.* v. *EPA,* 645 F.3d 420 426 (D.C. Cir. 2011). The D.C. Circuit in *Northeast Maryland Waste Disposal Authority* v. *EPA* evaluated this same issue, again in the context of the analogous CAA section 129, determining that ''actual'' emissions, not a ''reasonable estimate,'' should be utilized to develop a standard. *See,* generally, 358 F.3d 936 (D.C. Cir. 2004) (''*Northeast Maryland*''). Thus, MACT standards should be based on measurements that represent actual performance, not regulatory limits.

The D.C. Circuit in *Northeast Maryland* squarely rejected EPA's attempt to base MACT floors on ''emission limits'' set forth in state permits.[51] Petitioners specifically contended that ''there is nothing in the record to demonstrate that a state permit limits . . . reflect 'the average emissions limitation achieved' '' by the best performing units; environmental petitioners in *Northeast Maryland* claimed that it was likely that sources were overachieving beyond their permit limits, arguing that ''the regulatory limits are in fact much higher than the emissions that units achieve in practice.'' *Id.* at 954. The court held that ''[g]iven the absence of evidence that the permit levels reflect the emission levels of the best-performing [units] . . . we cannot uphold the MACT floors.'' *Id.* at 954. Thus, the court specifically held that the establishment of a CAA section 129 MACT standard based on state permit limits (*i.e.,* an ''emission limitation'')—alone and otherwise refraining from measuring ''actual'' emissions—was insufficient to meet the purposes of the statute. Other courts have likewise declined to impute the definition of ''emission limitation'' found in CAA section 302(k) to signify that EPA should ignore actual emission statistics. *See Cement Kiln Recycling Coalition* v *EPA,* 255 F.3d 855, 860–61 (D.C. Cir. 2001).

Comment: A commenter contended that the EPA found through its RTR that risks due to the HAP emissions from coke ovens' PQBS are ''acceptable''; that the existing PQBS rule ''provides an ample margin of safety to protect public health''; and that there ''are no developments in practices, processes or control technologies that necessitate revision of standards for this source category'' (citing 88 FR 55858, 55858). The commenter argued that the EPA's sole reason for proposing the new MACT limits is to comply with its interpretation of *LEAN* v. *EPA,*[52] but that while *LEAN* requires that the EPA ''address'' all HAPs known to be emitted by a source category, it does not mandate that the EPA set numerical MACT floors for every HAP, particularly those that are already controlled to an adequate margin of safety. In support of this argument, the commenter quoted language from the *LEAN* decision that ''an emission standard includes *as many limits as needed* to control all the emitted air toxics of a particular source category'' (emphasis added by commenter). The commenter asserts that, given a finding that risks are acceptable pursuant to CAA section 112(f)(2), the EPA should conclude, consistent with the commenter's interpretation of the *LEAN* decision, that it is not ''necessary'' to amend the MACT standard to include these limits.

Response: The EPA disagrees with the commenter's reading of the *LEAN*[53] decision. The Court in *LEAN* did not consider the relationship of risk review under CAA section 112(f)(2) and technology review under CAA section 112(d)(6). Nor did the Court have occasion to consider whether a standard for a pollutant previously unregulated at a source category must consider costs. The language quoted by the commenter regarding ''as many limits as needed'' thus could not be related to either consideration. The context of quoted language is that the Court was rejecting an argument that CAA section 112(d)(6) technology review could be completed without regulating all previously unregulated pollutants. *LEAN* thus requires that the EPA promulgate ''as many limits as needed'' so that all pollutants from a source category are regulated.

Comment: One commenter expressed concern that the MACT floors for PQBS sources were not developed with enough data, resulting in an invalid upper prediction limit (UPL) calculation. The commenter stated that more data would result in lower MACT limits. The commenter contended that a MACT floor based on a UPL calculation is, by design, very susceptible to variability in the underlying dataset, in addition to the average or mean value [of the data]. In other words, a data set with a high variance will result in a larger UPL than one with a lower variance for the same mean value. Thus, the variability in the dataset significantly influences the estimated UPL and the MACT floor in almost every instance. The commenter continued that an examination of the details of several calculations in the proposal illustrates the unreliability of the calculations underlying the MACT floors established in the proposed rule. For each MACT floor pool, there were at best four or five sources, and in some instances, there were just two sources that provided data—a small pool of data with high variability. The commenter requested that the EPA collect additional data to increase the data pool, to conduct proper validation of the data to eliminate any outliers, and take other measures necessary to improve the data set. The commenter is hopeful that a larger data pool will the lower the variance and result in more meaningful MACT floors. The commenter also requested that the EPA reassess the MACT floor calculations which resulted in MACT floors with higher levels than most if not all individual test data runs from which they were based.

Response: The EPA disagrees with the commenter's assertion that the MACT floor determinations are based on insufficient data. Emission limits based on testing are necessarily an extrapolation from data that does not account for operations in all circumstances at all times. Each MACT

[50] The CAA section 129 is highly analogous to CAA section 112 because the language found in both sections specifies that the respective ''degree of reduction in emissions'' cannot be less stringent than the ''emissions control that is achieved in practice by the best controlled similar unit.'' *See* CAA sections,129(A)(2) and 112(d)(3).

[51] Note that in *Northeast Maryland,* the EPA tried to justify basing CAA section 129 standards on state permit ''emission limitations,'' not through the argument currently presented by the commenter (*i.e.,* that 302(k) is a narrow definition that precludes utilizing ''actual'' emissions) but, rather, because ''[p]ermit limits and regulatory limits provide a reasonable estimate of the actual performance [].'' [*Northeast* Maryland, 358 F.3d 936, at 954].

[52] *Louisiana Environmental Action Network* v. *EPA,* 955 F.3d 1088 (D.C. Cir. 2020).

[53] *Louisiana Environmental Action Network* v. *EPA,* 955 F.3d 1088 (D.C. Cir. 2020).

standard is based on limited data from sources whose emissions are expected to vary over their long-term performance. For this reason, and because sources must comply with the MACT standards at all times, consideration of variability is a key factor in establishing these standards. This variability in emissions is due to numerous factors, including operation of control technologies, variation in combustion materials and combustion conditions, variation in operation of the unit itself, and variation associated with the emission measurement techniques. In order to account for variability that is reflected in the available data that we use to calculate MACT floors, we use the UPL, which represents the average emissions achieved by the best performing sources considering variability.

In defining the parameters for the MACT floor, Congress recognized that standards will necessarily be based on data that does not account for all operating scenarios. Section 112(d)(3)(A) of the CAA provides that MACT standards shall reflect the average of the best performing sources ''for which the Administrator has emissions information.'' For categories comprised of five or fewer sources, standards shall reflect the best performing sources ''for which the Administrator has or could reasonably obtain emissions information.''

The MACT standards being promulgated in this rule reflect available information, including additional information brought forward by industry during the comment period. The EPA sent 2 CAA section 114 testing requests to coke oven companies in 2016 and 2022 to collect test data to be used in the MACT determinations. The data used for the proposed MACT limits were all the data that were available to the EPA at that time. The EPA used these data to calculate the proposed limits. However, as explained in responses to previous comments in this section, the EPA revised some of these limits after incorporating additional data received after publication of the proposed rule. These changes are described in the *Final Rule MACT/BTF Memorandum,*[54] available in the docket for this rule. Though the coke oven companies did not in all instances provide the data sought by the EPA in its 2016 and 2022 information requests, the data collection effort demonstrates that the EPA made reasonable efforts to obtain a broad set of data. The requirement for establishing the minimum stringency level under CAA section 112(d)(3) for categories or subcategories with fewer than 30 sources is that the EPA base those standards on ''the average emission limitation achieved by the best performing 5 sources (for which the Administrator has or could reasonably obtain emissions information).'' These final standards meet that requirement as explained above.

As noted above, it is not uncommon for MACT standards to be based on data sets that are comprised of test results and therefore do not represent all known operating scenarios. Some data sets are more limited than others, and the EPA has explained its approach to the more limited data sets in memoranda *Approach for Applying the Upper Prediction Limit to Limited Datasets,* versions of which are tailored to promulgation of each MACT standard as appropriate. A version of this memorandum is included in the docket for these rules.[55] The D.C. Circuit has upheld the EPA's approach to basing MACT standards on limited data sets. See *Sierra Club* v. *EPA,* 895 F.3d 1, 14 (D.C. Circuit, 2018). The approach to MACT floor calculation used here is substantially the same as that which was upheld in *Sierra Club.*

Comment: Commenters expressed concern that the lack of data used to develop MACT floors for PQBS sources (pushing, battery stacks, main stacks, HNR B/W stacks) do not show the variability in operation of the coke units taking into account the operating coke units not included in the dataset. The commenters stated that due to the lack of sufficient data, the MACT limits are lower than they would be with more data and, therefore, may require application of control technology that is not feasible or cost-effective.

One commenter asserted that the limited amount of test data does not accurately represent emissions because the data do not account for normal variability in operations, variability of coal blends and suppliers, and seasonal effects. Without additional test data, the commenter expects the proposed limits will be regularly exceeded, forcing facilities to install expensive controls or curtail operations to meet the limits.

The commenter asserted it is critical that any standards be established using complete data and UPL methodologies that adequately account for variability in operating conditions (*e.g.,* normal and extended coking times) and in raw materials (*e.g.,* coal content). Referring to the *Technology Review* and *Cost* memoranda, the commenter asserted the lack of demonstrated technical feasibility and the extremely high cost of add-on controls highlights the importance of setting standards that can be achieved by the MACT floor facilities under various operating conditions and accounting for variation in raw materials. The commenter contended that if the EPA proceeds to finalize the proposed MACT floor emission limits, it first should revise the limits by employing an additional UPL adjustment factor to account for variability that is not adequately reflected in the current data. The commenter claimed that the EPA has made such an adjustment in other rules.

The commenter contended that a single test covering less than a handful of operating hours does not represent normal emissions from a unit at all times over the range of normal operating conditions during a typical year. Actual emissions will vary from time to time not only due to normal variations in process operations (differing coking times, variability in composition of feed materials and fuels, process operating conditions, *etc.*), but also due to seasonal variations in ambient weather conditions such as temperature, precipitation, and humidity (and corresponding impacts on fuel heat input, feed materials temperatures, *etc.*). For example, emissions of Hg are highly dependent on chemical content within the raw materials (*e.g.,* Hg in coal). Mercury and chloride content in coal varies not only between coal mines, but also within a coal seam at the same mine. The commenter asserted that for these reasons, the variability of emissions is under-represented in the calculated UPLs for the proposed rule, resulting in emission limits that cannot be achieved with the EPA's stated confidence and frequency. As such, the commenter stated it is not appropriate to establish standards using such limited emissions performance data as used in the proposed rule.

One commenter noted that in section 2.1.2 of the *Technology Review for the Coke Ovens: Pushing, Quenching, and Battery Stack and Coke Oven Batteries Source Categories,* the EPA identifies potential additional control technologies for pushing including ACI

[54] *Maximum Achievable Control Technology Standard Calculations, Cost Impacts, and Beyond-the-Floor Cost Impacts for Coke Ovens Facilities under 40 CFR part 63, subpart CCCCC—Final Rule.* D. L. Jones, U.S. Environmental Protection Agency, and G. Raymond and Michael Laney, RTI International. U.S. Environmental Protection Agency, Research Triangle Park, North Carolina. May 1, 2024. Docket ID Nos. EPA–HQ–OAR–2002–0085 and EPA–HQ–OAR–2003–0051.

[55] *Approach for Applying the Upper Prediction Limit to Limited Datasets.* D.L. Jones, U.S. Environmental Protection Agency. Research Triangle Park, NC. May 1, 2023. Docket ID Nos. EPA–HQ–OAR–2002–0085–0891 and EPA–HQ–OAR–2003–0051–0664.

for Hg and PAHs, and wet alkaline scrubbers (WAS) for AG and HCN. But based on its review, the EPA concludes that ''[n]o capture technology has been identified that demonstrates reduced emissions from pushing beyond the current technologies in use; therefore, no recommendations are made to pushing capture or control technology under this review.''

The commenter noted that in section 2.3.2 of the *Technology Review Memorandum,* the EPA identifies potential additional control technologies for battery stacks including ACI for Hg, and WAS for AG, HCN, and non-Hg HAP metals. The EPA similarly concludes that ''[b]ecause no other add-on control technology was identified, a control strategy based on control device technology for battery stacks is not recommended at this time.''

The commenter asserted the lack of demonstrated technical feasibility and the extremely high cost of add-on controls in the *Cost Memorandum* highlights the importance of setting standards that can be achieved by the MACT floor facilities under various operating conditions and accounting for variation in raw materials. The MACT floor test data sets are too limited and do not represent normal variability in emissions and operating conditions. The commenter asserted it is critical that any standards be established using complete data and UPL methodologies that adequately account for variability in operating conditions (*e.g.,* normal and extended coking times) and in raw materials (*e.g.,* coal content). Without additional test data to revise the limits, the commenter expects the proposed limits, which are based on inadequate data according to the commenter, will be regularly exceeded, forcing facilities to install expensive controls or curtail operations in order to meet the limits.

Another commenter asserted the EPA incorrectly established the proposed HNR HRSG main stack emission limits using only a limited subset of the available data, thus, the data set is incomplete and not representative of HNR operating conditions. The commenter described the test data from the 2016 ICR and the 2022 ICR, on which the MACT floor calculations are based, as ''very limited.'' The commenter contended a much larger dataset that more accurately represents trial-to-trial and plant-to-plant variations is available from compliance tests conducted on these sources in prior years, yet the EPA provides no explanation for why it excluded this larger body of stack test data from its MACT floor calculations.

The commenter asserted the EPA's use of the limited data set and its UPL approach for setting MACT limits did not reasonably account for variability. The commenter contended there are too few data points for a statistically valid analysis and limit. The UPL calculation relies upon estimating the true average and true variance. While the estimation of the average can be confidently done with a small number of samples, the estimation of the variance requires a substantially larger number of samples and in particular samples that cover the range of varying factors.

The commenter asserted the EPA's decision to base the proposed rule requirements on limited data is arbitrary and capricious, and that the EPA gave no explanation for its decision to ignore relevant information provided by the types of facilities to which the proposed limits would apply. The commenter cited language from a court case holding that agencies ''must *examine the relevant data* and articulate a satisfactory explanation for its action including a 'rational connection between the facts found and the choice made.' '' *Motor Vehicle Mfrs. Ass'n* v. *State Farm Mut. Ins. Co.,* 463 U.S. 29, 43 (1983). The commenter also cited the EPA's *Guidelines for MACT Determinations under Section 112(j) Requirements* (Feb. 2002) (''It is not necessary for the MACT floor to be determined based on emissions information from every existing source in the source category or subcategory if such information is not available. The permitting authority, however, should check with the EPA Regional Offices and the EPA Headquarters for any available information that could be used in determining the MACT floor'').

The commenter asserted the EPA must recalculate the HNR HRSG main stack limits using all available stack test data from 2006 through 2022 from SunCoke HNR HRSG main stacks at Haverhill, Middletown, and Granite City, and the Cokenergy HRSG main stack at Indiana Harbor. The commenter argued the 45-day comment period did not provide sufficient time for them to fully evaluate and propose more appropriate and accurate revised limits. Nonetheless, the commenter noted their preliminary estimates (correcting for the arbitrarily confined dataset used) demonstrate that the UPL calculations used must be revised significantly.

The commenter noted the EPA expects their facilities (with the exception of the Jewell coke plant) to meet the proposed bypass vent stack limits with no additional controls. However, the commenter asserted, this expectation may be wrong as the emission limits are based on a very limited data set. The commenter contended additional controls may be required to meet the proposed bypass vent limits at some or all of their heat recovery facilities. (The commenter discussed controls needed for SunCoke's Jewell facility separately in their comment letter). The commenter explained that waste gases exiting the bypass vent stacks are typically in the 1300 °F to 2000 °F temperature range. To install any kind of additional pollution control equipment on the bypass vent stacks would first require cooling the high temperature waste gases significantly, using HRSGs or similar equipment, to a level that is appropriate for the specific control equipment. The current layout of their plants and the limited space available in and around the bypass vent stacks make it extremely challenging to design and install additional HRSGs, route additional ductwork, and install any additional control equipment for the bypass vent stacks. The commenter asserted, even if this could be engineered, the cost effectiveness ($/ton removed) would be extremely high considering the bypass vent stacks are used and open for venting only a fraction of the time on an annual basis. Even then, any time that bypass venting was required for any reason, the source would not be able to meet the proposed limits because it is not technically feasible to install controls directly on waste heat stacks.

Other commenters stated the proposed amendments to 40 CFR part 63 subpart CCCCC and subpart L are based on limited data that were not peer-reviewed data and do not consider operational variations. Additional commenters stated any amendments made to the existing regulations should be consistent with the CAA and based on sound science.

Response: The EPA disagrees with the commenter that the number of runs in the MACT dataset was insufficient to develop MACT standards. As an example that supports this point, new source MACT limits are commonly developed from data for a single test at the one top performing facility, which typically includes three test runs.

The EPA disagrees with the commenter's statement that UPL calculations do not incorporate variability into the UPL-based limit. The use of the UPL to account for variability was upheld in *U.S. Sugar* v. *EPA,* 830 F.3d 579 (D.C. Circuit, 2016). That the UPL already incorporates variability into the calculated value is explained in the memorandum, *Use of the Upper Prediction Limit for Calculating MACT*

Floors,[56] hereafter referred to as the ''*UPL Memorandum,*'' located in the docket for this rule, as follows: ''There are several key points, addressed in more detail below, that underlie the EPA's methodology for calculating MACT floor standards through the use of the UPL. First, the floor standards reasonably account for variability in the emissions of the sources used to calculate the standards. This variability occurs due to a number of factors, including measurement variability (both sampling and analysis) and short term fluctuations in the emission levels that result from short-term changes in fuels, processes, combustion conditions, and controls. Second, because the emissions data available to the EPA is in the form of short-term stack tests and the standards must be complied with at all times, the agency uses the UPL to estimate the average emissions performance of the units used to establish the MACT floor standards at times other than when the stack tests were conducted. Thus, the UPL results in a limit that represents the average emissions limitation achieved by the best performing sources over time, accounting for variability in emissions performance.''

In addition, the EPA disagrees with the commenter that the standards should be revised to use a larger pool of test data to account for variability in operating conditions. It is incorrect to assume that including more data will cause the average or UPL to reflect more variability. Depending on the additional data, the increase in the size of the dataset may outweigh any additional variability and lower the UPL limit. That the UPL represents the average emission performance is described in the second point in the previous paragraph citing the *UPL Memorandum.*[57]

Additionally, the EPA handled the limited datasets used to set the MACT limits (pushing new source limits: Hg, AG, HCN, and PAH and battery stack new source limits: Hg, PM, AG, HCN) as per the procedures in the memorandum *Approach for Applying the Upper Prediction Limit to Limited Datasets.*[58] In *Sierra Club* v. *EPA* 895 F.3d 1, 14 (D.C. Circuit, 2018), the Court decided that the EPA had sufficiently explained the general application of the UPL to small/limited datasets and denied the petition for review as to the general application of the upper prediction limit to limited datasets as defined by the EPA: ''We deny the Environmental Petitioner's petition for review as to the general application of the upper prediction limit to limited datasets as defined by the EPA.''

The EPA did not have data for each existing pushing technology as shown in table 8, which lists the existing NESHAP PM pushing limits by technology, and as compared to table 9, which shows the data collected as part of the CAA section 114 request for this rulemaking, with pushing technology identified. Therefore, separate MACT limits were not developed for each pushing technology from the data submitted to the EPA. In addition, any MACT limits that might be set for subcategories would have less variability than the data in the pooled MACT limit for all pushing technologies.

TABLE 8—EXISTING 40 CFR PART 63 SUBPART CCCCC PM PUSHING LIMITS

Source	Pollutant	gr/dscf	lb/ton
Cokeside shed	PM	0.01	
Cokeside shed vented to CD	PM	0.01	
Moveable shed/hood&CD	PM		0.02
Mobile scrubber car: Short battery	PM		0.03
Mobile scrubber car: Tall battery	PM		0.01
Mobile scrubber car: Mobile CD	PM		0.04

TABLE 9—AVAILABLE PUSHING DATA BY FACILITY AND PUSHING EQUIPMENT TYPE

Facility	Unit description	Facility type	CAA section 114 data	HAP data collected for MACT limits
CC-Burnsharbor-IN	moveable shed/hood&baghouse	ByP	2016	Hg, AG, HCN, PAH.
CC-Middletown-OH	moveable shed/hood&baghouse	ByP	2016	Hg, AG, HCN, PAH.
CC-Monessen-PA	moveable shed/hood&baghouse	ByP	2016	Hg, AG, HCN, PAH.
SC-GraniteCity-IL	flat push hot car mobile scrubber car&multiclone	HNR	2016	Hg.
SC-Middletown-OH	flat push hot car mobile scrubber car&multiclone	HNR	2016	AG, HCN, Hg, PAH.
ABC-Tarrant-AL	moveable shed/hood&baghouse	ByP		none.
CC-Warren-OH	mobile scrubber car—short battery	ByP		none.
BLU-Birmingham-AL	moveable shed/hood&baghouse	ByP		none.
EES-RiverRouge-MI	moveable shed/hood&baghouse	ByP		AG, HCN, PAH.
SC-EastChicago-IN	moveable shed/hood&baghouse	HNR		none.
SC-FranklinFurnace-OH	mobile scrubber car with multiclone	HNR		none.
SC-Vansant-VA	cokeside shed	HNR		none.
USS-Clairton-PA	moveable shed/hood&baghouse	ByP		none.

[56] *Use of the Upper Prediction Limit for Calculating MACT Floors.* Memorandum from D. L Jones, EPA/OAQPS/SPPD, Research Triangle Park, North Carolina, to Docket No. EPA–HQ–OAR–2002–0085–0890. September 2, 2021.

[57] *Use of the Upper Prediction Limit for Calculating MACT Floors.* Memorandum from D. L Jones, EPA/OAQPS/SPPD, Research Triangle Park, North Carolina, to Docket No. EPA–HQ–OAR–2002–0085–0890. September 2, 2021.

[58] *Approach for Applying the Upper Prediction Limit to Limited Datasets.* D.L. Jones, U.S. Environmental Protection Agency. Research Triangle Park, NC. May 1, 2023. Docket ID Nos. EPA–HQ–OAR–2002–0085–0891 and EPA–HQ–OAR–2003–0051–0664.

For the proposal, the EPA evaluated potential control technologies for pushing sources as documented in the *Proposal Technology Review Memorandum.*[59] The EPA found that the add-on controls for pushing were not cost effective and, therefore, we did not propose BTF limits for pushing sources. However, the EPA also estimated that the coke ovens pushing sources would be able to meet the MACT limits developed from the 2016 CAA section 114 data with no additional controls, as documented in the *Proposal MACT/BTF Memorandum.*[60]

The EPA collected test data from the 2016 CAA section 114 test requests for HNR HRSG main stacks. The EPA conducted a second CAA section 114 testing request in 2022 for additional stack testing data from HNR HRSG main stacks. The EPA used the available data to calculate the MACT limits, as described in the *Proposal MACT/BTF Memorandum.*[61]

SunCoke provided the EPA with previous stack test data from 2006–2022 with their 2016 CAA section 114 submission. After the August 2023 proposal, the EPA reviewed the previous test reports submitted that were within five years prior to 2016 and that matched the requirements for testing in the CAA section 114 requests to add to the MACT data pool. We determined that there were four test reports listed in table 10 of this section, three for HNR HRSG main stacks and one for HNR B/W stacks, that were applicable to sources and pollutants in the CAA section 114 requests and, therefore, we have incorporated these data into a revised MACT floor calculation for the final rule.

We received test data from Cokenergy, Inc., for HNR HRSG main stacks at the SunCoke facility in Indiana Harbor in 2022, but these data were received too late to incorporate into the proposed rule. These data also are included in the MACT limits for HNR HRSG main stacks for the final rule.

In addition, we received test data from EES Coke on April 24, 2024, that included HAP test data from a February 21, 2024, emission test for pushing and battery stacks. We determined that of the HAP tested, the data for AG, HCN, and PAH for pushing and AG, HCN, and Hg from battery stacks were valid. Therefore, these data also were incorporated into the MACT limits.

The additional test data added to the final MACT data pool that were not reflected in the proposed MACT limits are shown in table 10. The results of these additions to the MACT data pool are shown in table 7 and documented in the *Final Rule MACT/BTF Memorandum.*[62]

TABLE 10—ADDITIONAL DATA RECEIVED AFTER PROPOSAL

Facility ID	Unit type	Unit tested	Pollutant	Test date
SC-GraniteCity-IL	HNR HRSG main stack	main baghouse stack	PM	8/25/2011
SC-GraniteCity-IL	HNR HRSG main stack	main baghouse stack	PM	5/30/2012
SC-Middletown-OH	HNR HRSG main stack	main baghouse stack	PM, Hg	4/1/2015
SC-Middletown-OH	HNR HRSG B/W stack	HRSG bypass stack #4	PM, Hg	6/26/2012
Cokenergy	HNR main stack	HRSG main stack	AG, Hg, nonmercury HAP, PAH.	2/2/2023
EES-RiverRouge-MI	pushing	pushing emission control system stack.	AG, HCN, PAH	2/21/2024
EES-RiverRouge-MI	battery stacks	underfire combustion stack	AG, HCN, Hg	2/21/2024

For the August 2023 proposal, the EPA estimated the costs for additional controls that would be used at the HNR facility without a HRSG to meet the proposed BTF limits for Hg and PM at HNR B/W stacks at this facility. The EPA has re-evaluated the proposed costs for the BTF limits based on comments received and revised the cost estimates for the HNR facility without HRSG. The revised costs are much higher than the costs at proposal ($7.5M capital and $4.6M annual costs ($2022) v. revised costs of capital $340M capital and $56M annual costs ($2023)). We also received comments that it would be infeasible to construct controls at this facility given the configuration of the facility between the bordering roads, rivers, and train tracks on all sides. Therefore, due to the physical constraints and high costs, the EPA is not finalizing the BTF standards for Hg and PM for HNR B/W stacks at facilities with no HRSG. As such, revised MACT standards for HNR B/W stacks were determined by incorporating the previous SunCoke Hg and PM test data described above and the data for the HNR facility without HRSG (previously used in the BTF analysis). The revised MACT limits for final rule apply to all HNR B/W stacks, *i.e.,* HNR facilities with and without HRSG.

The EPA agrees that the MACT standards should be consistent with the CAA and based on ''sound science'' as the commenter describes. The EPA utilized data conducted and submitted in compliance with two CAA section 114 requests, in 2016 and 2022, and additional valid data received after the proposed rule was published. The EPA developed the standards according to well-established CAA section 112(d)(2) and (3) procedures, established EPA methods and policy, and case law and incorporated operational variability by applying a UPL to the MACT floors. See

[59] *Technology Review for the Coke Ovens: Pushing, Quenching, and Battery Stack and Coke Oven Batteries Source Categories.* D.L. Jones, U.S. Environmental Protection Agency, and G.E. Raymond, RTI International. U.S. Environmental Protection Agency, Research Triangle Park, North Carolina. May 1, 2023. Docket ID Nos. EPA–HQ–OAR–2002–0085–0873 and EPA–HQ–OAR–2003–0051–0682.

[60] *Maximum Achievable Control Technology Standard Calculations, Cost Impacts, and Beyond-the-Floor Cost Impacts for Coke Ovens Facilities under 40 CFR part 63, Subpart CCCCC—Proposed Rule.* D.L. Jones, U.S. Environmental Protection Agency, and G. Raymond, RTI International. U.S. Environmental Protection Agency, Research Triangle Park, North Carolina. May 1, 2023. Docket ID Nos. EPA–HQ–OAR–2002–0085 and EPA–HQ–OAR–2003–0051.

[61] *Maximum Achievable Control Technology Standard Calculations, Cost Impacts, and Beyond-the-Floor Cost Impacts for Coke Ovens Facilities under 40 CFR part 63, Subpart CCCCC—Proposed Rule.* D. L. Jones, U.S. Environmental Protection Agency, and G. Raymond, RTI International. U.S. Environmental Protection Agency, Research Triangle Park, North Carolina. May 1, 2023. Docket ID Nos. EPA–HQ–OAR–2002–0085 and EPA–HQ–OAR–2003–0051.

[62] *Maximum Achievable Control Technology Standard Calculations, Cost Impacts, and Beyond-the-Floor Cost Impacts for Coke Ovens Facilities under 40 CFR part 63, subpart CCCCC—Final Rule.* D.L. Jones, U.S. Environmental Protection Agency, and G. Raymond and Michael Laney, RTI International. U.S. Environmental Protection Agency, Research Triangle Park, North Carolina. May 1, 2024. Docket ID Nos. EPA–HQ–OAR–2002–0085 and EPA–HQ–OAR–2003–0051.

the *UPL Memorandum* [63] and *Final Rule MACT/BTF Memorandum* [64] for details of the MACT standards development.

In regard to the comment that the proposed amendments to PQBS and COB NESHAP are based on ''limited data'' that were not peer-reviewed, the EPA notes that it would be out of the ordinary to subject data used to support a CAA regulation to a scientific peer review process. The methods used to collect data are peer reviewed, and the EPA engaged in a dialogue with the coke oven plants regarding the data produced in response to a CAA section 114 request to ensure that data was representative. Finally, the notice and comment process to promulgate a rule is an opportunity for interested parties to raise issues regarding the data relied upon by the EPA. These measures typically relied upon by the EPA to ensure the quality of data were followed in this rule process.

Finally, the requirement for establishing the minimum stringency level under CAA section 112(d)(3) for categories or subcategories with fewer than 30 sources is that the EPA base those standards on ''the average emission limitation achieved by the best performing 5 sources (for which the Administrator has or could reasonably obtain emissions information).'' These final standards meet that requirement.

Comment: One commenter asserted that the EPA has not justified their decision to set BTF limits for their Jewell facility, nor has the EPA demonstrated that the limits are ''achievable'' as required by the CAA. The commenter argued the BTF limits are far from technically, physically, and economically achievable, however, even if they were, meeting the limits would have significant energy requirements and non-air quality health and environmental impacts that the EPA insufficiently considered. Additionally, the EPA's determination that the BTF measures were ''cost-effective'' was based on erroneous data concerning not only the costs of such measures, but also their effectiveness at reducing Hg and other HAP emissions.

The commenter said the EPA's costs are underestimated for other reasons as well, including the following:

- The EPA miscalculated the emissions reductions of the proposed BTF limits at their Jewell facility because they wrongly assumed the feasible reductions of a baghouse and ACI system on a long-term basis. According to the commenter, 99 percent removal for the baghouse is a more realistic assumption of long-term removal than the 99.9 percent removal assumed by the EPA. Similarly, for Hg, a baghouse with ACI combination can only reasonably provide 80 percent Hg removal on a long-term basis versus the 90 percent reduction assumed by the EPA.
- The EPA's estimates did not include cooling before subjecting the 1,600 °F exhaust from the HNR B/W stacks to emissions controls, as would be necessary for the baghouse to function. The oven exhaust must be cooled from 1,600 °F or more to a maximum of 400 °F for high temperature bag material to function. And an air quench, as opposed to a water quench, would be required because the enormous water volumes otherwise required would far exceed the limitations of Dismal Creek, the source of plant cooling water. The air quench would result in a constant steam cloud within the valley. The commenter contended these two factors alone make a baghouse and an ACI system technically infeasible for this site.
- The ductwork costs assume only a nominal length of unlined, galvanized steel duct between the battery stacks and the air emission controls. No provision for refractory lining, and ductwork foundations, structural support, access platforms, and underground routing of the duct were considered.
- The assumed height of the exhaust stack was too low. Given the valley location of the Jewell facility, an exhaust stack of significant height should have been considered.
- A shaker baghouse—notably the lowest capital cost baghouse type—was assumed. Shaker baghouses are old technology no longer used in industry because of high maintenance requirements, challenges with operation, and degradation of removal efficiency over time. A compartmentalized, pulse jet baghouse is the industry standard for this application.
- The EPA failed to consider the characteristics of the exhaust gases and the requisite materials of construction.
- The EPA incorrectly assumed the volume of flue gas that would need to be treated based on arbitrary data from a single stack at a different plant.
- The EPA failed to consider the unique retrofit requirements that would be necessary given the age, configuration, layout, and underground utilities existing at the Jewell facility.
- The EPA significantly underestimated the amount of electricity usage and hazardous waste that would be generated.
- The EPA used an incorrect algorithm to calculate the total capital investment for ACI (Sargent & Lundy 2011).
- The EPA used an incorrect methodology to calculate the ACI rates. Based on the methodology included in a later study by the same authors (Sargent & Lundy 2017), the rate should be 699 lbs/hr rather than 50 lbs/hr, as the EPA assumed.
- The EPA did not sufficiently consider the infrastructure upgrades that would be needed to install controls to meet BTF limits at their Jewell facility.
- The EPA wrongly calculated the increased energy costs to meet the BTF limits for their Jewell facility. The commenter noted they have not been able to locate the EPA's energy analysis.
- The EPA underestimated the tons of hazardous dust disposal at 761 tpy.

The commenter contended that their Jewell facility, which is in a river valley with rivers, a state road, railroad tracks, and extremely steep gradients on two sides, does not have sufficient space to install the size of baghouse(s) needed to control the exhaust from the COB. The commenter contended installing the infrastructure could require surfaces to be levelled and forested areas to be cleared. These electrical upgrades would likely impact wetlands, visual resources, soils, and/or vegetation and wildlife species in the affected areas, which the EPA does not appear to have considered.

Response: The EPA agrees with some of the commenter's points and suggested revisions and has incorporated them into revised air pollution control device (APCD) costs and BTF Hg and PM HAP metals cost effectiveness, as described below. Details of the revised cost estimates can be found in the *Final Rule MACT/BTF Memorandum*.[65]

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[63] *Use of the Upper Prediction Limit for Calculating MACT Floors.* Memorandum from D.L Jones, EPA/OAQPS/SPPD, Research Triangle Park, North Carolina, to Docket No. EPA–HQ–OAR–2002–0085–0890. September 2, 2021.

[64] *Maximum Achievable Control Technology Standard Calculations, Cost Impacts, and Beyond-the-Floor Cost Impacts for Coke Ovens Facilities under 40 CFR part 63, Subpart CCCCC—Final Rule.* D.L. Jones, U.S. Environmental Protection Agency, and G. Raymond and Michael Laney, RTI International. U.S. Environmental Protection Agency, Research Triangle Park, North Carolina. May 1, 2024. Docket ID Nos. EPA–HQ–OAR–2002–0085 and EPA–HQ–OAR–2003–0051.

[65] *Maximum Achievable Control Technology Standard Calculations, Cost Impacts, and Beyond-the-Floor Cost Impacts for Coke Ovens Facilities under 40 CFR part 63, Subpart CCCCC—Final Rule.* D.L. Jones, U.S. Environmental Protection Agency, and G. Raymond and Michael Laney, RTI International. U.S. Environmental Protection Agency, Research Triangle Park, North Carolina. May 1, 2024. Docket ID Nos. EPA–HQ–OAR–2002–0085 and EPA–HQ–OAR–2003–0051.

- The EPA revised the BTF cost estimates developed by the EPA for proposal using some, but not all, of SunCoke's suggestions submitted with their comments, such that the EPA's cost and cost effectiveness (CE) estimates now include the following SunCoke costs/procedures that the EPA agrees are better estimates, as described in the *Final Rule MACT/BTF Memorandum;*[66] increased duct length based on SunCoke provided values; increased the stack flowrates based on SunCoke provided values; added 1 baghouse for a total of 3 baghouses; decreased the operating hours; lowered Hg control efficiency based on SunCoke's comment about long-term removal efficiency; lowered baghouse control efficiency based on SunCoke's comment about long-term removal efficiency; different units of measurement for ACI injection rate (lb/hr) based on SunCoke provided estimates; and itemized direct and indirect capital costs for installing baghouses. The estimated CE for Hg and non-Hg metals control were revised to $51K/lb and $14M/ton, respectively.
- The EPA did not use SunCoke's values/estimates/procedures for: ACI 2017 cost equation; estimating ductwork costs; 5 percent interest rate; and $44.25 labor rate. Instead, we used the EPA's previous method of estimating ACI control costs from 1996 proposed hazardous waste incineration NESHAP[67] (using SunCoke's ACI lb/hr injection rates), the EPA Cost Manual for ductwork costs (using SunCoke's length of ductwork), 2022 interest rate of 7.5 percent, and a labor rate of $29.44/hr from U.S. Bureau of Labor Statistics.

The result of revising the costs components are as follows: estimated capital costs are $340M, estimated annual costs are $56M, with cost-effectiveness of $14M/ton non-Hg metals and $51,000/lb Hg. Based on these cost considerations along with concerns raised by the commenter above regarding infeasibility to install these controls, the EPA has decided to not promulgate the BTF standards.

Therefore, the MACT floor emission limits will apply to all HNR waste heat stacks, including the SunCoke Vansant, Virginia waste heat stacks, regardless of the presence of HRSGs. See the *Final Rule MACT/BTF Memorandum*[68] for details.

The EPA agrees that the calculation for the increased electricity use was not explicitly documented in the information used for proposal. The values can be calculated using data in the attachment to the *Proposal MACT/BTF Memorandum*[69] ''*Appendix_D_BTFCosts_Bypass_ACI–PBH*'' excel file, in the tab 'BH-duct8V', as follows:

(1) Using cell B129 value of electricity 514,816 $/yr;

(2) Divide by cell D112 electricity price 0.0671 $/kWh; and

(3) Multiply by 2 for the two APCD configurations to obtain a total of 15.3 million kilowatt-hours of increased electricity use [Note, the preamble to the proposed rule erroneously cited 15.1 million kilowatt-hour, due to rounding differences].

4. What is the rationale for our final approach for the amendments pursuant to CAA sections 112(d)(2) and (3)?

As mandated by the *LEAN*[70] court decision, the EPA is finalizing MACT standards for previously unregulated HAP emissions pursuant to CAA sections 112(d)(2) and (3). The final MACT limits were developed using the valid data available to the EPA according to established procedures for development of MACT limits which includes accounting for operation variability with use of UPL procedures[71] and accounting for small datasets.[72] Based on the available data, we expect all facilities to be able to meet these MACT floor limits without the need for additional controls. These MACT floor-based limits are based on the UPL calculated with available data. All the test data results we have (based on 2- or 3-run averages) are below the promulgated MACT floor limits. The UPLs account for variability and provide limits that reflect the requirements of the statute.

D. Periods of Startup, Shutdown, and Malfunction (SSM) for the NESHAP for Coke Ovens: Pushing, Quenching, and Battery Stacks and the NESHAP for Coke Oven Batteries

1. What did we propose pursuant to SSM for the NESHAP for Coke Ovens: Pushing, Quenching, and Battery Stacks and the NESHAP for Coke Oven Batteries source categories?

We proposed the removal of exemptions for periods of startup, shutdown, and malfunction (SSM) consistent with a 2008 court decision, *Sierra Club* v. *EPA,* 551 F.3d 1019 (D.C. Cir. 2008), and that the emissions standards apply at all times. In establishing the standards in this rule, the EPA has taken into account startup and shutdown periods and, for the reasons explained in the proposal preamble, has not established alternate standards for those periods.

2. How did the amendments pursuant to SSM change in the final rule for the NESHAP for Coke Ovens: Pushing, Quenching, and Battery Stacks and the NESHAP for Coke Oven Batteries source categories?

Only minor changes from those proposed were made for SSM for the NESHAP for PQBS and COB source categories.

3. What key comments did we receive on SSM and what are our responses?

We received a few comments on SSM, with some in favor of the removal and some that were not. The key comments on SSM are summarized in this section along with the EPA's responses to the comments. Other comments received on SSM are summarized along with the EPA's responses in the *Response to Comment*[73] document, which is located in the dockets to the rules.

[66] *Maximum Achievable Control Technology Standard Calculations, Cost Impacts, and Beyond-the-Floor Cost Impacts for Coke Ovens Facilities under 40 CFR part 63, Subpart CCCCC—Final Rule.* D.L. Jones, U.S. Environmental Protection Agency, and G. Raymond and Michael Laney, RTI International. U.S. Environmental Protection Agency, Research Triangle Park, North Carolina. May 1, 2024. Docket ID Nos. EPA–HQ–OAR–2002–0085 and EPA–HQ–OAR–2003–0051.

[67] Revised Standards for Hazardous Waste Combustors. Proposed Rule. U.S. Environmental Protection Agency, Washington, DC. 61 FR 17358. April 19, 1996. Docket Number EPA–HQ–OAR–2004–0022. *https://www.govinfo.gov/content/pkg/FR-1996-04-19/pdf/96-7872.pdf.*

[68] *Maximum Achievable Control Technology Standard Calculations, Cost Impacts, and Beyond-the-Floor Cost Impacts for Coke Ovens Facilities under 40 CFR part 63, subpart CCCCC—Final Rule.* D.L. Jones, U.S. Environmental Protection Agency, and G. Raymond and Michael Laney, RTI International. U.S. Environmental Protection Agency, Research Triangle Park, North Carolina. May 1, 2024. Docket ID Nos. EPA–HQ–OAR–2002–0085 and EPA–HQ–OAR–2003–0051.

[69] *Maximum Achievable Control Technology Standard Calculations, Cost Impacts, and Beyond-the-Floor Cost Impacts for Coke Ovens Facilities under 40 CFR part 63, subpart CCCCC—Proposed Rule.* D.L. Jones, U.S. Environmental Protection Agency, and G. Raymond, RTI International. U.S. Environmental Protection Agency, Research Triangle Park, North Carolina. May 1, 2023. Docket ID Nos. EPA–HQ–OAR–2002–0085 and EPA–HQ–OAR–2003–0051.

[70] *Louisiana Environmental Action Network* v. *EPA,* 955 F.3d 1088 (D.C. Cir. 2020).

[71] *Use of the Upper Prediction Limit for Calculating MACT Floors.* Memorandum from D.L Jones, EPA/OAQPS/SPPD, Research Triangle Park, North Carolina, to Docket No. EPA–HQ–OAR–2002–0085–0890. September 2, 2021.

[72] *Approach for Applying the Upper Prediction Limit to Limited Datasets.* D.L. Jones, U.S. Environmental Protection Agency. Research Triangle Park, NC. May 1, 2023. Docket ID Nos. EPA–HQ–OAR–2002–0085–0891 and EPA–HQ–OAR–2003–0051–0664.

[73] *Summary of Public Comments and Responses for Coke Ovens: Pushing, Quenching, and Battery Stacks Residual Risk and Technology Review, and Coke Oven Batteries Periodic Technology Review.* U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Sector Policies and Programs Division (D243–02), Research Triangle Park, North Carolina. May 1, 2024.

Comment: A commenter said that eliminating the SSM provisions subjects coke manufacturers to penalties based on events that cannot be avoided. The commenter requested the EPA to develop work practice standards to address SSM and/or allow facilities to follow a SSM plan during SSM events. Two commenters said they disagreed with the EPA's proposal to eliminate the SSM provisions and that the emission standards applying during these periods. The commenters said that alternate limits must be established for emissions during these periods because the proposed limits in 40 CFR 63.7297 (''What emission limitations must I meet for HRSG main stacks?'') would be impossible to meet otherwise. The commenter continued that they believed the EPA should evaluate the need for a work practice standard that would allow coke facility owners/operators to address major malfunctions following a site-specific plan, in lieu of normal emission standards, and use the facilities' SSM plans to develop work practices. The commenter stated that the EPA has discretion to account for emissions that occur during malfunctions and set separate work practice standards where (1) sufficient information is available, and (2) the circumstances indicate that treating malfunction periods the same as normal operating periods would not be appropriate. The commenters noted that emissions during malfunction periods may increase until it is possible to complete repairs safely and restart the equipment and that coke facilities should have an option to meet work practice requirements for malfunction periods or meet the requirements applicable to normal operating periods. If a facility chooses to meet the requirements applicable to malfunction periods, then the work practice standard could require that the facility create and follow a malfunction work plan with site-specific operating conditions, unless doing so would not be possible due to safety considerations. A commenter disagreed with the EPA's proposal to eliminate the requirement to have a written SSM plan, and thus eliminate the ability of facilities to demonstrate compliance if the regulated entity complies with the plan during SSM.

Response: The EPA expects control devices to be operating during startup and shutdown (SS); therefore, no additional requirements should be needed for startup or shutdown. The EPA asked for comments on whether any situations exist where separate standards, such as work practices, would be more appropriate during periods of SS rather than the current standard. The commenters did not provide a description of specific situations where work practice standards, or any specific work practices, would be more appropriate than the numerical emissions standards we are finalizing in this rule (or standards that were already in the NESHAP) that would be appropriate during startup or shut down.

In regard to the commenter's statement that ''coke facilities should have an option to meet work practice requirements for malfunction periods or meet the requirements applicable to normal operating periods,'' the EPA notes that facilities always have the option of complying with the applicable limits and using work practices, even during a malfunction. As stated in the proposal preamble [88 FR 55890]: '' the standards that apply during normal operation apply during periods of malfunction.'' As the EPA has consistently explained, in the event that a source fails to comply with the applicable CAA section 112 standards, the EPA would determine an appropriate response based on, among other things, the good faith efforts of the source to minimize emissions during the violative period, including preventative and corrective actions, as well as root cause analyses to ascertain and rectify excess emissions. Additionally, the EPA will continue to evaluate violations on a case-by-case basis and determine whether an enforcement action is appropriate.'' The D.C. Circuit upheld the EPA's general approach to malfunctions in *U.S. Sugar Corp.* v. *EPA,* 830 F.3d 579, 606–610 (2016) (CAA section 112 ''permits the EPA to ignore malfunctions in its standard setting and account for them instead through its regulatory discretion'').

With regard to commenters statements addressing the removal of SSM plan requirements, note that affected units are subject to emission standards at all times. The applicability of a standard during any SSM event will ensure that sources have ample incentive to plan for and achieve compliance and thus the SSM plan requirements are no longer necessary.

Comment: A commenter agreed with removal of the SSM provisions because the EPA now lacks the authority to retain SSM exemptions. The commenter contended the EPA correctly proposed to remove SSM loopholes from Subparts L and CCCCC. The commenter explained that the CAA directs the EPA to set emission standards for all HAP emitted by a source category, and such emission standards must apply continuously. The [previous] existing emission standards allowed a general exemption during SSM periods. This general exemption is inconsistent with the Act's mandate that standards apply continuously, and as such, the D.C. Circuit struck it down in 2008, in *Sierra Club* v. *EPA.* The EPA thus lacks any authority to retain such an exemption when it reviews standards under CAA section 112(d)(6): ''The obligatory periodic review and revision of 'emission standards' thus must ensure that each source category's standard imposes appropriate limits. . . .'' Standards that violate the Act because they include SSM exemptions cannot be appropriate. Commenter stated that the EPA correctly declines to factor malfunction emissions into standards. The EPA's position is not only reasonable, but the only one consistent with the Act. Congress rewrote CAA section 112 in 1990 to ensure that emissions of HAPs would be controlled. During malfunctions, by definition, emission controls fail. Incorporating such emissions into standards would thus allow uncontrolled emissions, contrary to Congress's intent and binding D.C. Circuit precedent.

Response: We acknowledge the support by the commenter. We note that malfunctions can include malfunction of process operations or monitoring equipment as well as failure of emission controls.

4. What is the rationale for our final approach for the amendments pursuant to SSM?

Periods of startup, normal operations, and shutdown are all predictable and routine aspects of a source's operations. Malfunctions, in contrast, are neither predictable nor routine. Instead, they are by definition, sudden infrequent and not reasonably preventable failures of emissions control, process, or monitoring equipment (40 CFR 63.2) (definition of malfunction). Nor are emissions during a malfunction able to be reliably measured with EPA methods which specify that these methods are only to be used during normal operations. The EPA interprets CAA section 112 as not requiring emissions that occur during periods of malfunction to be factored into development of CAA section 112 standards (either numerical or as work practices)and this reading has been upheld as reasonable in *U.S. Sugar Corp.* v. *EPA,* 830 F.3d 579, 606–610 (2016). The D.C. Circuit agreed with the EPA's approach, as it relates to the difficulties in determining an appropriate numerical standard that would reflect the MACT limits required by CAA section 112 and the immense spread of variability that would ensue if the EPA were to include conditions during a malfunction. In essence, the D.C. Circuit concluded that any such standard would be too broad and would be meaningless with respect to the intent of CAA section 112 MACT standards.

We are finalizing the removal of exemptions for periods of SSM consistent with a 2008 court decision, *Sierra Club* v. *EPA,* 551 F.3d 1019 (D.C. Cir. 2008), and clarifying that the emissions standards apply at all times. We are not promulgating any separate standards for startup or shut down because the control devices in use in the industry operate at all times.

In its 2008 decision in *Sierra Club* v. *EPA,* 551 F.3d 1019 (D.C. Cir. 2008), the United States Court of Appeals for the District of Columbia Circuit (the Court) vacated portions of two provisions in the EPA's CAA section 112 regulations governing the emissions of HAP during periods of SSM. Specifically, the Court vacated the SSM exemption contained in 40 CFR 63.6(f)(1) and 40 CFR 63.6(h)(1), holding that under section 302(k) of the CAA, emissions standards or limitations must be continuous in nature and that the SSM exemption violates the CAA's requirement that some CAA section 112 standards apply continuously.

With the issuance of the mandate in *Sierra Club* v. *EPA,* the exemptions that were in 40 CFR 63.6(f)(1) and (h)(1) are null and void. The EPA amended 40 CFR 63.6(f)(1) and (h)(1)) on March 11, 2021, to reflect the Court order and correct the CFR to remove the SSM exemption. In this action, we are eliminating any cross-reference to the vacated provisions in the regulatory text including 40 CFR 63.7310(a) and table 1 of the PQBS NESHAP and 40 CFR 63.300(e) and 63.310 for the COB NESHAP. Consistent with *Sierra Club* v. *EPA,* we are promulgating standards in these rules that apply at all times. We are also promulgating several revisions to table 1 of the PQBS NESHAP (the General Provisions applicability table) as is explained in more detail below and in the proposal preamble. For example, we are eliminating the incorporation of the General Provisions' requirement that the source develop an SSM plan. We also are eliminating or revising certain recordkeeping and reporting requirements related to the SSM exemption as further described as follows.

The EPA has attempted to ensure that the provisions we are promulgating to eliminate are inappropriate, unnecessary, or redundant in the absence of the SSM exemption. In promulgating the standards in this rule, the EPA has taken into account SS periods and, for the reasons explained as follows, has not promulgated alternate standards for those periods: The coke oven industry has not identified (and there are no data indicating) any specific problems with removing the SSM provisions due to the nature of the coke process to operate continuously. If an oven is shut down (cold), it often has to be significantly repaired before it can be restored to operational status before starting back up, which is the reason why coke ovens instead are put in (hot) idle mode when not operating.

For all the above these reasons, we are finalizing that the standards for PQBS NESHAP and the COB NESHAP apply at all times including startup, shut down, and malfunction.

E. Other Issues

1. What did we propose?

We did not propose any amendments that were expected to force facilities to close, as described in the economic analysis performed for the proposed rule. We also did not propose to list CBRP facilities under CAA section 112.

2. How did the amendments pursuant to Other Issues change for the NESHAP for Coke Ovens: Pushing, Quenching, and Battery Stacks and the NESHAP for Coke Oven Batteries source categories?

a. Facility Closures

We did not finalize any amendments that were expected to force facilities to close, as described in the economic analysis for the final rule. See section V.D.

b. Listing CBRP Facilities Under CAA Section 112

In the final rules as in the proposal, we are not listing CBRP facilities under CAA section 112 but we intend to list CBRP operations as a source category under CAA section 112(c) in a separate, future regulatory action. We intend to provide the EPA's rationale for such listing in the future action along with details of the EPA's regulatory activities in regard to the CBRP facility. We will perform data gathering to support the listing using a CAA section 114 request that we intend to distribute by the end of the 2024 calendar year and that will request information related to CAA section 112 requirements.

3. What key comments did we receive on the Other Issues and what are our responses?

The key comments on the Other Issues are summarized in this section along with the EPA's responses to the comments. Other comments received on these issues are summarized along with the EPA's responses in the *Response to Comment* [74] document, which is located in the dockets to the rules.

a. Facility Closures

We received a few comments on the potential for facility closures as a result of the proposed amendments. These comments are summarized below along with the EPA responses.

Comment: Commenters stated that they believe the EPA's proposed changes would cause additional coke plant closures or curtailments, leading to a decline in domestic steel and cast iron production. Commenters further stated that regulations rendering domestic cokemaking infeasible would further cripple the domestic steel and iron foundry industries, increase the necessity to import these products, hinder the U.S. transition to a low-carbon economy, and cause job loss in economically distressed areas. Commenters requested that the current proposal be modified to minimize impact to industry.

One commenter stated that there are only two remaining blast furnace steelmakers in the U.S., namely Cleveland-Cliffs, Inc., and U.S. Steel, both of whom rely heavily on the coke industry to provide them millions of tons of coke annually. The commenter asserted that should SunCoke be forced to curtail or cease coke production to meet the new limits as required by the EPA rulemaking, SunCoke may be unable to meet its contractual obligations and be unable to supply steelmakers with the quantities of coke necessary to fuel the domestic steel industry.

The commenter emphasized that a strong domestic steel industry is vital to national and economic security, the U.S. clean energy transition and decarbonization strategy, critical infrastructure, and the competitiveness of many domestic manufacturing industries. The domestic steel industry is the cleanest and most energy-efficient in the world; steel production in the

[74] *Summary of Public Comments and Responses for Coke Ovens: Pushing, Quenching, and Battery Stacks Residual Risk and Technology Review, and Coke Oven Batteries Periodic Technology Review.* U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Sector Policies and Programs Division (D243–02), Research Triangle Park, North Carolina. May 1, 2024.

United States has the lowest GHG emissions intensity of the nine largest steel producing countries and the EU–27. The commenter contended that the curtailment of domestic steel production due to a coke supply shortage would make the U.S. dependent on imports of steel from countries where GHG emissions from steel production are substantially higher, not to mention the environmental emissions associated with shipping millions of tons of coke across the world. The commenter also asserted that their cokemaking process creates higher quality, higher strength coke that results in steelmakers using less coke in their blast furnaces and thereby lowering their GHG emissions. The commenter stated that SunCoke invests in maintaining and improving its cokemaking plants with environmentally superior technology and younger cokemaking assets.

Other commenters contended our national security, in both the economic and military senses, depends on being able to convert iron ore into a usable product for our nation. Our manufacturing, transportation, construction, energy, and military all require steel. The U.S. steel industry cannot be 100 percent recycled steel as it needs new iron units for quality and quantity reasons. Coke batteries make coke, coke reduces iron oxide from in the ground to usable pig iron, and pig iron makes steel. It is fundamental to so much of the U.S. economy and we need U.S. Steel's coke batteries to remain operational and competitive.

Several commenters contended the U.S. Department of Commerce has recognized that the domestic steel industry is vital to assuring our national security and maintaining critical infrastructure. It is crucial that we continue to maintain the balance of environmental responsibility and economic opportunity for our country. We should not risk the future of our remaining manufacturing jobs and national security. The U.S. Steel facilities are very important to our region and country. Working together, we can accomplish three important goals for future generations: protect our region's jobs, preserve our environment in which we work and live, and preserve our ability to convert iron ore into steel for national economic and military security.

One commenter stated the proposed EPA rule threatens to make coke production uneconomical (through the cost of controls) and impractical (through compliance with the new standards that, as written, is a practical impossibility). If implemented, the proposed EPA rule will reduce coke reduction in the U.S. at a time when domestic steel production is more important than ever.

Another commenter stated the proposed amendments could be detrimental to the coke industry and reduce U.S. production, with potentially negative ramifications for the U.S. economy.

Another commenter stated over the past decade, numerous coke plants have been forced to close due to aging assets and increasing facility costs to meet existing environmental requirements. The EPA's proposed rule would only further this trend, by imposing unattainable emission limits, extensive compliance tests, and costly surveillance for all coke facilities. These new standards would cost coke plants millions of dollars in compliance and force many to shutter their doors due to the stringent and impractical demands.

Response: The EPA disagrees with the commenter that the rule would cause additional coke plant closures or curtailments, leading to a decline in domestic steel and cast iron production. The EPA estimated that all sources can meet the MACT floor standards and would not have to install controls to meet the limits. Note, the EPA is not finalizing the BTF Hg and PM standards for HNR B/W stacks proposed for facilities with no HRSG.

As explained in the memorandum *Coke Ovens Risk and Technology Review: Compliance Costs* [75] prepared for the proposal, costs for fenceline monitoring were estimated at about $101,496 per facility including recordkeeping and reporting ($2022); costs for MACT compliance testing including recordkeeping and reporting for ByP facilities were estimated to range from $151,802 to $442,414; costs for MACT compliance testing for HNR facilities was estimated to range from $291,285 to $823,767. The MACT compliance testing is required in the final rule to be performed every 5 years or every permit cycle (at the beginning of the permit cycle), whichever period is shorter.

As documented in the *Economic Impact Analysis* (EIA) [76] prepared for the proposed rule, based on the Small Business Association (SBA) standards and the company employment figures (shown in table 3–1 of the EIA), none of the firms that own affected coke facilities are small businesses and the compliance costs are small relative the revenues of the steel industry.

All previous coke plant closures have been due to a combination of market reductions in demand for steel and, therefore, coke, and multiple noncompliance issues with their states for sources that were not Coke PQBS or COB mission sources but which required significant upgrades and cleanup costs.

There currently are three ByP companies producing blast furnace coke at five facilities (two facilities recently shut down). There was an acquisition by Cleveland Cliffs, Inc., of AK Steel and ArcelorMittal in 2020 that reduced the number of companies but not the number of facilities. There is one HNR company producing blast furnace coke at five facilities and two ByP companies producing foundry coke at two facilities (one is cold idle).

See sections V.C. and V.D. of this preamble for more information about the costs and economic impacts of these rules.

b. Listing CBRP Facilities Under CAA Section 112

We received a few comments on listing CBRP facilities under CAA section 112. All except one were in favor of listing. These comments are summarized below along with the EPA response.

Comment: Commenters stated that they believe the EPA should list the CBRP under CAA section 112 so that the standards can be updated in an RTR. The commenters requested that the EPA list the co-located CBRPs as a source category under CAA section 112. The commenters support the EPA's intentions to list co-located CBRP at ByP facilities as a source category under CAA section 112(c)(5). However, where the EPA has not fulfilled its duty to revise technology and risk standards for ByP recovery plants, the EPA must approach listing co-located CBRP with an increased sense of urgency. The commenters asserted the risk and technology review for CBRP was completed prior to the 1990 CAA Amendment framework and is due to be revised. Another commenter requested the EPA update standards on CBRP,

[75] *Coke Ovens Risk and Technology Review: Compliance Costs.* D. L. Jones, U.S. Environmental Protection Agency and G.E. Raymond, RTI International. U.S. Environmental Protection Agency, Research Triangle Park, North Carolina. May 1, 2023. Docket ID Nos. EPA–HQ–OAR–2002–0085 and EPA–HQ–OAR–2003–0051.

[76] *Economic Impact Analysis for the Proposed National Emission Standards for Hazardous Air Pollutants for Coke Ovens: Pushing, Quenching, and Battery Stacks, Residual Risk and Technology Review; National Emission Standards for Hazardous Air Pollutants for Coke Oven Batteries, Technology Review* (EPA–452/R–23–005). U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Health and Environmental Impacts Division, Research Triangle Park, NC. May 2023.

which are not included in this rulemaking but are sources of HAP at coke facilities. One commenter disagrees with the EPA's decision not to revise the standards for the CBRP. The commenter contends that the EPA must list co-located CBRP as a source under CAA section 112(c)(5) and issue standards.

Response: We agree with the commenters that CBRP should be listed under CAA section 112. However, we need to gather information to support both listing and regulation and intend to do that by end of 2024. In order to evaluate the CBRP effectively under CAA section 112, the EPA would need to use a CAA section 114 request to obtain additional data, which could include requests for testing, to enhance the quality of data used to develop the MACT standards, especially considering the complexity of the sources and the need for quantitative testing. The EPA would not be able to finalize a sound and appropriate rule within 2 years; we estimate that the EPA would need about 3 years or more to complete such a final rule. We intend to send a CAA section 114 information request in 2024 to gather data for the future CAA section 112 regulation.

Comment: A commenter addressed the history of CBRPs as a source category listed and the later de-listing pursuant to CAA section 112(c), and the steps they believe necessary to re-list. The commenter noted that the 40 CFR part 61 subpart L NESHAP limits HAP emissions at CBRPs through equipment leak detection and repair (LDAR) work practice standards. The commenter continued that, based upon the 40 CFR part 61, subpart L requirements, in 2001, the EPA published a document delisting CBRP as a source category under CAA section 112(c). The commenter stated that the delisting decision was based on an EPA study where the EPA concluded that the benzene standard, applicable to all CBRP in the listed source category, would determine the floor for any CAA section 112(d) standard; that the EPA did not know of any realistic ''beyond the floor'' options at the time of the de-listing; that the EPA believed that further rulemaking would result in no accompanying benefits; and that any new standard that the EPA would develop under CAA section 112(d) would be based on and be comparable to the existing standard both in terms of application and level of stringency. The commenter concluded that in order for the EPA to list CBRP as a new CAA section 112 source category, the Agency must first re-evaluate its earlier delisting decision and provide a rational basis for reversing this longstanding regulatory determination; and explain why regulating CBRP under multiple sets of standards would be authorized and technically sound.

Response: We are not listing the CBRP source category as part of this final rule. As noted in the August 2023 proposed rule preamble, we intend to list CBRP operations, elements of which currently are addressed in the 40 CFR part 61 regulation, as a source category under CAA section 112(c)(5) in a future action. We plan to issue a CAA section 114 request for information regarding the CBRPs in calendar year 2024.

4. What is the rationale for our final approach for the amendments pursuant to these Other Comments?

a. Facility Closures

There are no amendments included in this final rule that were expected to force facilities to close. The BTF standards for HNR facilities without HRSG are not included in this final rule. We are extending the compliance date for the MACT standards by 6 months, for a total of 18 months after publication of the final rule in the **Federal Register**, which should give facilities the time to prepare for the new standards.

b. Listing CBRP Facilities Under CAA Section 112

We did not list CBRP facilities under CAA section 112 in this final rule because we need to gather information to support both listing and regulation and intend to do that by end of 2024. Gathering additional data will enhance the quality of data used to develop the MACT standards, especially considering the complexity of the sources and the need for testing. We intend to list CBRP operations as a source category under CAA section 112(c)(5) in a separate, future regulatory action. We also intend to provide the EPA's rationale for such listing in this separate future action with details of the EPA's plan for future regulatory activities for the CBRP. We intend to send a CAA section 114 information request by end of 2024 to gather data for the future CAA section 112 regulation.

F. Compliance

1. What did we propose?

The proposed compliance date for the new MACT limits in the PQBS NESHAP was 1 year after publication of the final rule. The proposed compliance date for the two BTF emission limits for HNR B/W stack in the PQBS NESHAP was 3 years after publication of the final rule to allow time for the installation of ductwork and control devices. We estimated that the facility would need 3 years to complete this work and comply with the new PM limit due to the unique configuration of the facility. The proposed requirement for periodic compliance testing after the initial compliance demonstration with the required MACT standards was ''at the end of each permit cycle.''

The proposed compliance date to begin fenceline monitoring under the COB NESHAP was 1 year after the publication date of the final rule; facilities must perform root cause analysis and apply corrective action requirements upon exceedance of an annual average concentration action level starting 3 years after the publication date of the final rule. The proposed compliance date under the COB NESHAP for the revisions to the limits for allowable leaks from doors, lids, and offtakes was 1 year after publication of the final rule.

We proposed the date for complying with the proposed SSM changes to be no later than the effective date of the final rule with the exception of recordkeeping provisions. For recordkeeping under the SSM, we proposed that facilities must comply with this requirement 180 days after the effective date of the final rule. Recordkeeping provisions associated with malfunction events would be effective no later than 180 days after the effective date of the final rule. The EPA proposed to require additional information for recordkeeping of malfunction events, so the additional time was necessary to permit sources to read and understand the new requirements and adjust record keeping systems to comply. The proposed reporting provisions were in accordance with the reporting requirements during normal operations and the semi-annual report of excess emissions.

The proposed date for complying with the proposed electronic reporting submission requirements was 60 days after publication of the final rule for performance tests and 1 year after publication of the final rule or the date the template is made available on the CEDRI website for compliance reports.

2. How did the amendments related to compliance change for the NESHAP for Coke Ovens: Pushing, Quenching, and Battery Stacks and the NESHAP for Coke Oven Batteries source categories?

We changed the required initial MACT compliance in the final rule to be 18 months after publication of the final rule for all MACT emissions limits in the final rule. For the periodic MACT compliance testing, we are promulgating that periodic testing be conducted ''at the beginning of each permit cycle or every 5 years, whichever is shorter.'' The remaining final promulgation compliance dates for the PQBS and COB NESHAP are unchanged from proposal and are as follows: 1 year after the publication date of the final rule to begin fenceline monitoring; 1 year after publication of the final rule for complying with the revisions to the limits for allowable leaks from doors, lids, and offtakes; 1 year after publication of the final rule for compliance with the 20 percent opacity limit for HNR B/W stacks; and 1 year after publication of the final rule for compliance with the zero leaks from HNR oven doors and pressure monitoring in either ovens or tunnels.

For SSM, the final promulgation compliance dates also are unchanged from proposal and are as follows: no later than the publication date of the final rule except for the recordkeeping provisions, which for startup and shutdown are 180 days after the effective date of the final rule and for malfunction events, the recordkeeping requirements are effective no later than 180 days after publication date of the final rule.

3. What key comments did we receive on compliance and what are our responses?

We received a number of comments on compliance deadlines and compliance methods. Some commenters wanted shorter time periods for the deadlines and some wanted longer time periods. In regard to methods, some commenters wanted to use methods not included in the rules and some commenters wanted methods in the rules removed. The key comments on compliance are summarized in this section along with the EPA's responses to the comments. Other comments received on compliance are summarized along with the EPA's responses in the *Response to Comment*[77] document, which is located in the dockets to the rules.

Comment: A commenter stated they believe that, because Title V permits for coke plants can take years, based on the proposed rule text, facilities can delay the PM test indefinitely based on the timing of a Title V reissuance. The commenter requested that the EPA specify intervals to conduct performance testing in months or years rather than relative to the permit cycle. The commenter also requested that citations 40 CFR 63.7321(a) and 63.7333(a)(2) specify performance testing intervals in months or years to avoid facilities indefinitely delaying the PM emission limits test.

Response: We agree with the commenter and instead have required testing ''at the beginning of each permit cycle or every 5 years, whichever is shorter'' instead of only every ''permit cycle.''

Comment: Two commenters stated that because the EPA does not have enough data to calculate representative limits, facilities may not be able to meet limits without installing new controls. Therefore, facilities need 3 years to comply instead of proposed one year to allow facilities to do testing to evaluate the need for additional controls and to design, purchase, and install new equipment, if needed.

Response: Based on available data, we estimate all facilities will be able to meet MACT floor limits without new controls. We looked at all the data available to the EPA and found that only one test run was slightly higher than the MACT floor for one HAP, but compliance is demonstrated a 3-run average and all the 3-run averages for all the HAP are below the MACT floor limits. These limits are based on the UPL calculated with available data. All the test data results we have (based on 3-run averages) are below the promulgated MACT floor limits. The UPL accounts for variability and provides upper bound limits based on available HAP emissions data for these sources. We have no evidence that indicates these facilities will need to install additional controls to meet these MACT floor limits, and the commenters requesting the full 3 years allowed by the statute did not provide such evidence. Rather, these commenters base their request on the assertion that because, in their view, there is not enough data to prove that additional controls are not needed, the compliance date should be set based on the assumption that they will be. The EPA does not believe this rationale is sufficient to justify delaying compliance for 3 years. In the final rule, the EPA is allowing 18 months to comply with the MACT standards to allow sufficient time for the facilities to conduct the compliance emissions testing and in acknowledgement of the remote possibility that some additional action may be needed by facilities to confirm compliance. In that unlikely event, 18 months will allow additional time for the facility to confirm that they can meet the limit.

4. What is the rationale for our final approach for the amendments related to compliance?

Based on consideration of comments and other relevant information, we are promulgating the same compliance dates as proposed for fenceline monitoring, revised leak limits, SSM, and ERT submissions. We conclude that the final compliance dates and timelines for these requirements are appropriate as described previously in this section of the preamble. However, we are promulgating that periodic testing for the MACT limits be conducted ''at the beginning of each permit cycle or every 5 years, whichever is shorter,'' to account for permit periods that can extend for many years beyond 5 years due to delays in permit reviews and to establish compliance at the beginning of the permit cycle because permit conditions may change from the previous permit cycle.

For the MACT standards, as described in responses in previous subsection of this preamble, we made some adjustments to the dates and timelines based on consideration of comments. We conclude that the final compliance dates and timelines for the MACT standards are appropriate as described previously in this section of the preamble.

V. Summary of Cost, Environmental, and Economic Impacts and Additional Analyses Conducted

The following analyses of costs and benefits, and environmental, economic, and environmental justice impacts are presented for the purpose of providing the public with an understanding of the potential consequences 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 on the statutory factors the EPA discussed in sections II.A., IV.B.1., and IV.C.

A. What are the affected facilities?

The affected sources are facilities in the Coke PQBS source category and the COB source category. These sources include any facility engaged in producing coke from coal, where either the ByP process or the HNR process is used. The coke production processes include pushing coke out of ovens, quenching hot coke with water; and, for HNR facilities only, also recovering heat from hot coke oven exhaust to produce steam and, in some cases, also power. In the coke-making process, the production

[77] *Summary of Public Comments and Responses for Coke Ovens: Pushing, Quenching, and Battery Stacks Residual Risk and Technology Review, and Coke Oven Batteries Periodic Technology Review.* U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Sector Policies and Programs Division (D243–02), Research Triangle Park, North Carolina. May 1, 2024.

of coke is achieved by the thermal distillation of coal in oven chambers made of brick or other heat-resistant material at temperatures approaching 2,000 °F (1,100 °C) to separate the gas, water, and tar in coal. The coke product is used as a fuel and source of carbon used in steelmaking. Based on the information we have, there are 11 operating coke manufacturing facilities subject to these NESHAP and one idle facility.

B. What are the air quality impacts?

There are no measurable air quality impacts from this rule that can be guaranteed. However, the promulgated 21 new MACT floor standards for the PQBS NESHAP source category will ensure that emissions of these HAP do not increase and help ensure that air quality in the vicinity of coke oven facilities does not degrade over time. In addition, the promulgated reduction in allowable emissions from coke oven doors, lids, and offtakes in the COB source category will ensure that emissions of HAP do not increase and that air quality does not degrade over time. We also are promulgating fenceline monitoring, which would improve compliance assurance and potentially result in some unquantified additional emission reductions. Lastly, we also are requiring that standards apply during periods of SSM.

The EPA has not quantified any benefits associated with this final rule, because all covered facilities are expected to already have HAP emissions levels that are below the final limits, based on facility data available to the EPA. However, the EPA anticipates that this final rule's new requirements will increase the likelihood of facilities successfully detecting any HAP emissions in excess of the specified thresholds, allowing for earlier corrective action and thus preventing pollution increases that could otherwise occur. The potential public health benefits associated with such prevention are difficult to estimate, given that they correspond to hypothetical scenarios of emissions beyond those indicated by current facility data, and are thus not quantified in the EPA's analysis

C. What are the cost impacts?

Cost impacts are due to the required source testing that includes: testing every 5 years to demonstrate compliance with the promulgated MACT floor standards for PQBS; weekly opacity testing of HNR B/W heat stacks; daily visible leak testing of HNR ovens doors; and fenceline monitoring at ByP facilities. The total costs for the rules are estimated to be $4.0 million per year for the 11 operating facilities ($2023), with $500,000 per facility, on average for the five HNR facilities and $250,000 per facility, on average, for the 6 ByP facilities. The compliance testing is estimated to cost $3.3 million total for the 11 operating facilities, with $300,000 per facility on average. The HNR B/W stack opacity testing is estimated to be $22,000 total for the five HNR facilities, with $4,400 per facility on average. The HNR daily door leak testing with EPA Method 303A is estimated to be $105,000 total for the five HNR facilities, with $21,000 per facility on average. The fenceline monitoring costs are estimated to be $640,472 for the six ByP facilities, with $107,000 per facility on average.[78]

D. What are the economic impacts?

The EPA prepared an EIA for the final rule,[79] which is available in the docket for this action. This final rule is not a significant regulatory action under Executive Order 12866 section 3(f)(1), as amended by Executive Order 14094, since it is not likely to have an annual effect on the economy of $200 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, territorial, or tribal governments or communities. The EIA analyzed the potential cost impacts under the promulgated requirements, and the projected impacts are presented for the 2025–2036 time period. The EIA analyzes the projected impacts of the final rule in order to better inform the public about its potential effects.

If the compliance costs, which are key inputs to an EIA, are small relative to the receipts of the affected industries, then the impact analysis may consist of a calculation of annual (or annualized) costs as a percent of sales for affected parent companies. This type of analysis is often applied when a partial equilibrium or more complex EIA approach is deemed unnecessary given the expected size of the impacts. The annualized cost per sales for a company represents the maximum price increase in the affected product or service needed for the company to completely recover the annualized costs imposed by the regulation. We conducted a cost-to-sales analysis to estimate the economic impacts of this promulgation, given that the equivalent annualized value (EAV), which represents a flow of constant annual values that would yield a sum equivalent to the present value of the compliance costs over the period 2025–2036. The EAV is estimated at $3.9 million using a 2 percent discount rate, $3.9 million using a 3 percent discount rate, and $3.7 million using a 7 percent discount rate in 2022 dollars, which is small relative to the revenues of the steel industry (of which the coke industry is a part).

There are five parent companies that operate active coke facilities: Cleveland-Cliffs, Inc. U.S. Steel, SunCoke Energy, Inc., DTE Energy Company (EES Coke in River Rouge (Detroit), Michigan), and the Drummond Company (ABC Coke in Tarrant City, Alabama). Each reported greater than $1 billion in revenue in 2021. The EPA estimated the annualized compliance cost each firm is expected to incur and determined the estimated cost-to-sales ratio for each firm is less than 0.2 percent. James C. Justice Companies owns the idled Bluestone Coke facility, and the EPA estimated the compliance cost-to-sales ratio, if the facility were to resume operations, would be less than 0.1 percent. Therefore, the projected economic impacts of the expected compliance costs of the promulgation are likely to be small. The EPA also conducted a small business screening to determine the possible impacts of the promulgated rule on small businesses. Based on the Small Business Administration size standards and business information gathered by the EPA, this source category has one small business, which would not be subject to significant cost by the promulgated requirements.

In this section of the preamble and in the EIA [80] for this final rule, we focus on the compliance cost impacts to the firms who own affected facilities. Other than the simple cost-to-sales analysis described earlier in this section, we do

[78] *Coke Ovens Risk and Technology Review: Compliance Costs.* D.L. Jones, U.S. Environmental Protection Agency and G.E. Raymond, RTI International. U.S. Environmental Protection Agency, Research Triangle Park, North Carolina. May 1, 2024. Docket ID Nos. EPA–HQ–OAR–2002–0085 and EPA–HQ–OAR–2003–0051.

[79] *Economic Impact Analysis for the Final National Emission Standards for Hazardous Air Pollutants for Coke Ovens: Pushing, Quenching, and Battery Stacks, Residual Risk and Technology Review; National Emission Standards for Hazardous Air Pollutants for Coke Oven Batteries, Technology Review* (EPA–452/R–23–005). U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Health and Environmental Impacts Division, Research Triangle Park, NC. May 2024.

[80] *Economic Impact Analysis for the Final National Emission Standards for Hazardous Air Pollutants for Coke Ovens: Pushing, Quenching, and Battery Stacks, Residual Risk and Technology Review; National Emission Standards for Hazardous Air Pollutants for Coke Oven Batteries, Technology Review* (EPA–452/R–23–005). U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Health and Environmental Impacts Division, Research Triangle Park, NC. May 2024.

not have the data or methods to assess potential price impacts or distributional consequences of the potential pass-through of regulatory costs to consumers of intermediate and final products for which coke is an input.

With regard to emissions reductions, this rule has no quantifiable emission reductions. At this time, since these impacts are uncertain and not quantifiable, the EPA is unable to assess the total costs, benefits, and distributional consequences of these actions at the community level.

For more information on the potential benefits of this rulemaking, see section V.E. of this preamble. For additional discussion on the environmental justice analyses conducted and their results, see section V.F.

E. What are the benefits?

The promulgated amendments revise the standards such that they apply at all times, which includes periods of SSM, and may result in some unquantified additional emissions reductions (and associated potential public health benefits) compared to historic or current emissions (*i.e.,* before the SSM exemptions were removed). Additional elements of the promulgated amendments, including MACT standards for previously unregulated HAP emissions, lower ByP coke oven emission leak limits, ensuring zero HNR door leaks, and HNR B/W stack opacity limits also may result in unquantified additional emissions reductions (and associated potential public health benefits) that improve accountability and compliance assurance. Also, the promulgated fenceline monitoring will improve compliance assurance and potentially result in some unquantified additional emission reductions (and associated public health benefits).

The EPA has not quantified any benefits associated with this final rule because all covered facilities are expected to already have HAP emissions levels that are below the final limits, based on facility data available to the EPA. However, the EPA anticipates that this final rule's new requirements will increase the likelihood of facilities successfully detecting any HAP emissions in excess of the specified thresholds, allowing for earlier corrective action and thus preventing pollution increases that could otherwise occur. The potential public health benefits associated with such prevention are difficult to estimate, given that they correspond to hypothetical scenarios of emissions beyond those indicated by current facility data, and are thus not quantified in EPA's analysis.

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*,'' [81] 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* [82] states that a regulatory action may involve potential environmental justice concerns if it could: (1) create new disproportionate impacts on communities with environmental justice concerns; (2) exacerbate existing disproportionate impacts on communities with environmental justice concerns; or (3) present opportunities to address existing disproportionate impacts on communities with environmental justice concerns through this action under development.

The EPA's environmental justice *Technical Guidance* [83] states that ''[t]he analysis of potential environmental justice concerns for regulatory actions should address three questions: (A) Are there potential environmental justice concerns associated with environmental stressors affected by the regulatory action for population groups of concern in the baseline? (B) Are there potential environmental justice 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 environmental justice concerns created or mitigated compared to the baseline?''

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 sections 112, which are based solely on the statutory factors the EPA is required to consider.

1. Coke Ovens: Pushing, Quenching, and Battery Stacks Source Category Demographics

The EPA examined the potential for the 12 coke oven facilities to disproportionately impact residents in certain demographic groups living in proximity to the facilities. Specifically, the EPA analyzed how demographics and risk are distributed under the PQBS NESHAP. The methodology and detailed results of the demographic analysis are presented in the document titled *Analysis of Demographic Factors for Populations Living Near Coke Oven Facilities—Final,*[84] which is available in the docket for this action.

To examine the potential for disproportionate impacts on certain population groups, the EPA conducted a proximity demographic analysis and a risk-based demographic analysis. A proximity demographic analysis is an assessment of individual demographic groups in the total population living within 10 km (~6.2 miles) and 50 km (~31 miles) of the affected facilities. A risk-based demographic analysis is an assessment of risks to individual demographic groups in the population living within 10 km and 50 km of the facilities. In this preamble, we focus on the 10 km radius for the demographic analysis because it encompasses all the facility MIR locations and captures 99 percent of the population with cancer risks greater than or equal to 1-in-1 million from coke ovens PQBS source category emissions. The results of the proximity analysis for populations living within 50 km are included in the document titled *Analysis of Demographic Factors for Populations Living Near Coke Oven Facilities—Final,*[85] which is available in the docket for this action (EPA–HQ–OAR–2002–0085).

The total population, population percentages, and population count for each demographic group for the entire U.S. population is shown in the column titled ''Nationwide Average for Reference'' in table 11 of this preamble.

[81] *Technical Guidance for Assessing Environmental Justice in Regulatory Analysis.* U.S. Environmental Protection Agency. June 2016. Quote is from Section 3—Key Analytic Considerations, page 11. *https://www.epa.gov/sites/default/files/2016-06/documents/ejtg_5_6_16_v5.1.pdf.*

[82] *Technical Guidance for Assessing Environmental Justice in Regulatory Analysis.* U.S. Environmental Protection Agency. June 2016. Quote is from Section 3—Key Analytic Considerations, page 11. *https://www.epa.gov/sites/default/files/2016-06/documents/ejtg_5_6_16_v5.1.pdf.*

[83] *Technical Guidance for Assessing Environmental Justice in Regulatory Analysis.* U.S. Environmental Protection Agency. June 2016. Quote is from Section 3—Key Analytic Considerations, page 11. *https://www.epa.gov/sites/default/files/2016-06/documents/ejtg_5_6_16_v5.1.pdf.*

[84] *Analysis of Demographic Factors for Populations Living Near Coke Oven Facilities—Final.* U.S. Environmental Protection Agency, Research Triangle Park, North Carolina. May 2024. Docket ID Nos. EPA–HQ–OAR–2002–0085 and EPA–HQ–OAR–2003–0051.

[85] *Analysis of Demographic Factors for Populations Living Near Coke Oven Facilities—Final.* U.S. Environmental Protection Agency, Research Triangle Park, North Carolina. May 2024. Docket ID Nos. EPA–HQ–OAR–2002–0085 and EPA–HQ–OAR–2003–0051.

These national data are provided as a frame of reference to compare to the results of the proximity analysis and the risk-based analysis.

The results of the category proximity demographic analysis (see table 11, column titled ''Proximity Analysis for Pop. Living within 10 km of Coke Oven Facilities'') indicate that a total of 1.3 million people live within 10 km of the 12 coke oven facilities. The percent of the population that is African American is more than double the national average (28 percent versus 12 percent). The percent of people living below the poverty level is almost double the national average (21 percent versus 13 percent) and the percent of people living below twice the poverty level is above the national average (41 percent versus 30 percent).

The PQBS source category risk-based demographic analysis (see table 11 in this preamble), which focuses on populations that have higher cancer risks, indicates that there are approximately 2,500 people with cancer risks greater than or equal to 1-in-1 million living around two PQBS facilities, one in Pennsylvania and one in Virginia. Over 99 percent of the population with cancer risks greater than or equal to 1-in-1 million are living around the Virginia facility; therefore, the demographics for the population living around this facility dominates the risk-based demographics. The population with cancer risks greater than or equal to 1-in-1 million due to emissions from the PQBS source category is predominantly white (83 percent versus 60 percent nationally).[86] The population with cancer risks greater than or equal to 1-in-1 million for emissions from the PQBS source category also are above the national average for: (1) the percent of the population living below poverty (15 percent versus 13 percent); (2) the percent of the population living below twice the poverty level (34 percent versus 30 percent); and (3) the percent of the population that is over 25 without a high school diploma (23 percent versus 12 percent). Note that no reduction in actual emissions or risk is expected for the PQBS source category as a result of these final actions.

TABLE 11—SOURCE CATEGORY: DEMOGRAPHICS OF POPULATIONS LIVING WITHIN 10 km OF FACILITIES WITH CANCER RISK GREATER THAN OR EQUAL TO 1-IN-1 MILLION FROM EMISSIONS FROM THE PQBS SOURCE CATEGORY COMPARED TO THE NATIONAL AVERAGE AND PROXIMITY DEMOGRAPHICS

Demographic group	Nationwide average for reference	Proximity analysis for population living within 10 km of coke oven facilities	Cancer risk ≥1-in-1 million within 10 km of coke oven facilities
Total Population	330M	1.3M	2.5K
Number of Facilities		12	2
Race and Ethnicity by Percent/Number of People			
White	60%	58%	83%
	196M	737K	2K
African American	12%	28%	10%
	40M	359K	300
Native American	0.6%	0.2%	0%
	2M	3K	0
Hispanic or Latino (includes white and nonwhite)	19%	10%	2%
	63M	133K	<100
Other and Multiracial	9%	4%	5%
	29M	47K	100
Income by Percent/Number of People			
Below Poverty Level	13%	21%	15%
	42M	267K	400
Below 2x Poverty Level	30%	41%	34%
	100M	524K	900
Education by Percent/Number of People			
Over 25 and without a High School Diploma	12%	12%	23%
	38M	152K	600
Over 25 and with a High School Diploma	88%	88%	77%
	292M	1.1M	2K
Linguistically Isolated by Percent/Number of People			
Linguistically Isolated	5%	3%	2%

[86] Note, since there are fewer than 100 people with a noncancer hazard index greater than or equal to 1 living around one facility, we did not conduct risk-based demographics for noncancer.

TABLE 11—SOURCE CATEGORY: DEMOGRAPHICS OF POPULATIONS LIVING WITHIN 10 km OF FACILITIES WITH CANCER RISK GREATER THAN OR EQUAL TO 1-IN-1 MILLION FROM EMISSIONS FROM THE PQBS SOURCE CATEGORY COMPARED TO THE NATIONAL AVERAGE AND PROXIMITY DEMOGRAPHICS—Continued

Demographic group	Nationwide average for reference	Proximity analysis for population living within 10 km of coke oven facilities	Cancer risk ≥1-in-1 million within 10 km of coke oven facilities
	17M	33K	<100

Notes: The nationwide population count and all demographic percentages are based on the Census' 2016–2020 American Community Survey five-year block group averages and include Puerto Rico. Demographic percentages based on different averages may differ. The total population counts are based on the 2020 Decennial Census block populations. To avoid double counting, the ''Hispanic or Latino'' category is treated as a distinct demographic category for these analyses. A person is identified as one of five racial/ethnic categories above: White, African American, Native American, Other and Multiracial, or Hispanic/Latino. A person who identifies as Hispanic or Latino is counted as Hispanic/Latino for this analysis, regardless of what race this person also may have identified as in the Census.

2. Coke Oven Whole-Facility Demographics

As described in section IV.B.5. of this preamble, we assessed the facility-wide (or ''whole-facility'') risks for 12 coke oven facilities in order to compare the PQBS NESHAP source category risk to the whole facility risks. This whole-facility demographic analysis characterizes the risks communities face from all HAP sources at coke oven facilities. The whole facility risk assessment includes all sources of HAP emissions at each facility (described in the memorandum *HAP Emissions from Coke Oven Facilities—Final Rule*[87]). Note, no reduction in actual emissions or risk is expected at the whole facility level.

The whole-facility demographic analysis is an assessment of individual demographic groups in the total population living within 10 km (~6.2 miles) and 50 km (~31 miles) of the facilities. In this preamble, we focus on the 10 km radius for the demographic analysis because it encompasses all the facility MIR locations and captures 99 percent of the population with cancer risks greater than or equal to 1-in-1 million from the PQBS NESHAP source category emissions. The results of the whole-facility demographic analysis for populations living within 50 km are included in the document titled *Analysis of Demographic Factors for Populations Living Near Coke Oven Facilities—Final,*[88] which is available in the docket for this action.

While the source category population with risks ≥ 1-in-1 million (shown in table 11 of this preamble) is disproportionately White (83 percent living within 10 km of coke oven facilities *v.* 60 percent nationally), the whole-facility population with risks ≥ 1-in-1 million (shown in table 12 of this section) is disproportionately African American (30 percent living within 10 km of coke oven facilities *v.* 12 percent nationally). Specifically, the whole-facility population with risk greater than 1-in-1 million is 30 percent African American compared to the national average of 12 percent. In addition, the percentage of the whole-facility population living within 10 km of coke oven facilities with cancer risks ≥ 1-in1 million that is living below the poverty level (17 percent) and also the population living below two times the poverty level (36 percent) are above the corresponding national average (13 percent and 30 percent).

TABLE 12—WHOLE-FACILITY: DEMOGRAPHICS OF POPULATIONS LIVING WITHIN 10 km OF FACILITIES WITH CANCER RISK GREATER THAN OR EQUAL TO 1-IN-1 MILLION FROM COKE OVEN WHOLE-FACILITY EMISSIONS COMPARED TO THE NATIONAL AVERAGE AND PROXIMITY DEMOGRAPHICS

Demographic group	Nationwide average for reference	Proximity analysis for pop. living within 10 km of coke oven facilities	Cancer risk ≥1-in-1 million within 10 km of coke oven facilities
Total Population	330M	1.3M	491K
Number of Facilities		12	7
Race and Ethnicity by Percent/Number of People			
White	60%	58%	62%
	196M	737K	303K
African American	12%	28%	30%
	40M	359K	149K
Native American	0.6%	0.2%	0.1%
	2M	3K	500
Hispanic or Latino (includes white and nonwhite)	19%	10%	4%
	63M	133K	21K
Other and Multiracial	9%	4%	3%

[87] *HAP Emissions from Coke Oven Facilities—Final Rule.* D.L. Jones, U.S. Environmental Protection Agency; and G.E. Raymond and E. Kerr, RTI International. U.S. Environmental Protection Agency, Research Triangle Park, North Carolina. May 1, 2024. Docket ID Nos. EPA–HQ–OAR–2002–0085 and EPA–HQ–OAR–2003–0051.

[88] *Analysis of Demographic Factors for Populations Living Near Coke Oven Facilities—Final.* U.S. Environmental Protection Agency, Research Triangle Park, North Carolina. May 2024. Docket ID Nos. EPA–HQ–OAR–2002–0085 and EPA–HQ–OAR–2003–0051.

TABLE 12—WHOLE-FACILITY: DEMOGRAPHICS OF POPULATIONS LIVING WITHIN 10 km OF FACILITIES WITH CANCER RISK GREATER THAN OR EQUAL TO 1-IN-1 MILLION FROM COKE OVEN WHOLE-FACILITY EMISSIONS COMPARED TO THE NATIONAL AVERAGE AND PROXIMITY DEMOGRAPHICS—Continued

Demographic group	Nationwide average for reference	Proximity analysis for pop. living within 10 km of coke oven facilities	Cancer risk ≥1-in-1 million within 10 km of coke oven facilities
	29M	47K	17K
Income by Percent/Number of People			
Below Poverty Level	13% 42M	21% 267K	17% 84K
Below 2x Poverty Level	30% 100M	41% 524K	36% 176K
Education by Percent/Number of People			
Over 25 and without a High School Diploma	12% 38M	12% 152K	8% 40K
Over 25 and with a High School Diploma	88% 292M	88% 1.1M	92% 451K
Linguistically Isolated by Percent/Number of People			
Linguistically Isolated	5% 17M	3% 33K	1% 6K

Notes: The nationwide population count and all demographic percentages are based on the Census' 2016–2020 American Community Survey five-year block group averages and include Puerto Rico. Demographic percentages based on different averages may differ. The total population counts are based on the 2020 Decennial Census block populations. To avoid double counting, the ''Hispanic or Latino'' category is treated as a distinct demographic category for these analyses. A person is identified as one of five racial/ethnic categories above: White, African American, Native American, Other and Multiracial, or Hispanic/Latino. A person who identifies as Hispanic or Latino is counted as Hispanic/Latino for this analysis, regardless of what race this person may have also identified as in the Census.

G. What analysis of children's environmental health did we conduct?

This action is not subject to Executive Order 13045 because the EPA does not believe the environmental health or safety risks addressed by this action present a disproportionate risk to children. The EPA's assessment of the potential impacts to human health from emissions at existing coke ovens sources in the PQBS source category are discussed in section IV.B. and IV.C. of this preamble.

A total of 281,000 children ages 0–17 live within 10 km of Coke Oven facilities, which is 22 percent of the total population within 10 km of Coke Ovens. This percentage is the same as the national percentage for children ages 0–17 (22 percent). Due to emissions from the PQBS source category, there are approximately 200 children (0–17 years) with increased lifetime cancer risks of greater than or equal to 1-in-1 million. This represents 8 percent of the total population living of 2,500 people within 10 km of coke ovens that have an increased lifetime cancer risk greater than or equal to 1-in-1 million due to PQBS emissions (see Table 11). Therefore, the number of children ages 0–17 living near these facilities is not disproportionately high.

Children breathe more air per unit of body weight than adults and are more susceptible to the impacts of mutagenic carcinogens and neurodevelopmental toxicants, both of which are found in COE. Because this action sets MACT standards for Hg, which is a known neurodevelopmental toxicant and was previously unregulated for this source category, and because the rule includes lower leak limits for coke ovens to minimize fugitive releases of COE, the final standards will prevent, and possibly reduce, the exposure of children to both cancer and noncancer health effects. In addition, the fenceline monitoring work practice required in the final rule, where benzene is used as a surrogate for COE, also may prevent and possibly reduce exposure of children to mutagenic carcinogens and neurodevelopmental toxicants.

The methodology and detailed results of the demographic analysis are presented in a technical report, *Analysis of Demographic Factors for Populations Living Near Coke Oven Facilities—Final,*[89] available in the docket for this action.

[89] *Analysis of Demographic Factors for Populations Living Near Coke Oven Facilities—Final.* U.S. Environmental Protection Agency, Research Triangle Park, North Carolina. May 2024.

VI. Statutory and Executive Order Reviews

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

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

This action is a ''significant regulatory action'' as defined under 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, *Economic Impact Analysis for the Final National Emission Standards for Hazardous Air Pollutants for Coke Ovens: Pushing, Quenching, and Battery Stacks, Residual Risk and Technology Review; National Emission Standards for Hazardous Air Pollutants for Coke*

Docket ID Nos. EPA–HQ–OAR–2002–0085 and EPA–HQ–OAR–2003–0051.

Oven Batteries Technology Review,[90] is available in the dockets EPA–HQ–OAR–2002–0085 and EPA–HQ–OAR–2003–0051.

B. Paperwork Reduction Act (PRA)

The information collection activities in this promulgated rule have been submitted for approval to OMB under the PRA. The ICR documents that the EPA prepared have been assigned EPA ICR numbers 1995.10 and 1362.15. You can find a copy of the ICRs in the dockets for this rule, and they are briefly summarized here.

We are promulgating amendments to the PQBS NESHAP that require compliance testing for 17 MACT limits and to the COB NESHAP that require fenceline monitoring. Furthermore, the amendments also require electronic reporting and remove the SSM exemptions in both NESHAP. We are also incorporating other revisions (*e.g.,* facility counts) that affect reporting and recordkeeping for coke oven facilities. This information would be collected to assure compliance with the CAA.

For ICR: NESHAP for PQBS (40 CFR part 63, subpart CCCCC) (OMB Control Number 2060–0521)

Respondents/affected entities: PQBS source category.

Respondent's obligation to respond: Mandatory (40 CFR part 63, subpart CCCCC).

Estimated number of respondents: 12 facilities.

Frequency of response: One time.

Total estimated burden: 26,800 hours (per year). Burden is defined at 5 CFR 1320.3(b).

Total estimated cost: $3,490,000 (per year), which includes $107,000 annualized capital, or operation and maintenance costs. Of the total cost, $950,000 (per year) is for this promulgation, and $2,433,000 is for other costs related to continued compliance with the NESHAP and the operation and maintenance of leak detectors and continuous opacity monitors. The total rule costs reflect an overall increase of $540,000 (per year) from the previous ICR due to the compliance with 17 additional MACT floor emission limits, transition to electronic reporting, and elimination of SSM requirements.

For ICR: NESHAP for COB (40 CFR part 63, subpart L) (OMB Control Number 2060–0253)

Respondents/affected entities: COB source category.

Respondent's obligation to respond: Mandatory (40 CFR part 63, subpart L).

Estimated number of respondents: 12 facilities.

Frequency of response: One time.

Total estimated burden: The annual recordkeeping and reporting burden for facilities to comply with all of the requirements in the NESHAP is estimated to be 2,800 hours (per year). Burden is defined at 5 CFR 1320.3(b).

Total estimated cost: $6,650,000 (per year), which includes $0 annualized capital, or operations and maintenance costs. Of the total cost, $270,000 (per year) is for this promulgation and $6,380,000 is for other costs related to continued compliance with the NESHAP. The total rule costs reflect a decrease of $230,000 (per year) from the previous ICR, due to revised HNR facility counts, transition to electronic reporting, addition of fenceline monitoring, and elimination of SSM requirements.

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.

C. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. This action will not impose any requirements on small entities. Small entities that may be impacted by this rulemaking include Coke facilities located within an integrated iron and steel manufacturing facility under NAICS 331110 (Iron and Steel Mills and Ferroalloy Manufacturing) with 1500 or fewer employees, or facilities under NAICS 324199 (All Other Petroleum and Coal Products Manufacturing, with 500 or fewer workers. None of the facilities currently in operation that are potentially affected by this rulemaking promulgation under these size definitions are ''small businesses'' and therefore will not have a significant economic impact. Additional details of the analysis can be found in the EIA[91] prepared for this rule.

D. Unfunded Mandates Reform Act (UMRA)

This action does not contain an unfunded mandate of $100 million or more as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. While this action creates an enforceable duty on the private sector, the cost does not exceed $100 million or more.

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. It will not have substantial direct effects on tribal governments, on the relationship between the Federal government and Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes. No tribal governments own facilities subject to these NESHAP. Thus, Executive Order 13175 does not apply to 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 not subject to Executive Order 13045 because the EPA does not believe the environmental health or safety risks addressed by this action present a disproportionate risk to children. This action's health and risk assessments for PQBS source category are contained in section IV. of this preamble and further documented in *The Residual Risk Assessment for the Coke Ovens: Pushing, Quenching, and Battery Stack Source Category in Support of the 2024 Risk and Technology Review Final*

[90] *Economic Impact Analysis for the Final National Emission Standards for Hazardous Air Pollutants for Coke Ovens: Pushing, Quenching, and Battery Stacks, Residual Risk and Technology Review; National Emission Standards for Hazardous Air Pollutants for Coke Oven Batteries, Technology Review* (EPA–452/R–23–005). U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Health and Environmental Impacts Division, Research Triangle Park, NC. May 2024.

[91] *Economic Impact Analysis for the Final National Emission Standards for Hazardous Air Pollutants for Coke Ovens: Pushing, Quenching, and Battery Stacks, Residual Risk and Technology Review; National Emission Standards for Hazardous Air Pollutants for Coke Oven Batteries, Technology Review* (EPA–452/R–23–005). U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Health and Environmental Impacts Division, Research Triangle Park, NC. May 2024.

Rule,[92] available in the docket for this action (EPA–HQ–OAR–2002–0085).

The EPA's *Policy on Children's Health*[93] applies to this action. Although we did not perform a risk assessment of the COB source category in this action, we note that COE, which is primarily emitted from this source category, has a mutagenic mode of action; therefore, changes to the standards for the COB NESHAP under the technology review could reduce the exposure of children to mutagens. In addition, this action sets MACT standards for Hg, which is a known neurodevelopmental toxicant and was previously unregulated for this source category; therefore, the new Hg standards will provide additional protection for the exposure of children to noncancer impacts as well. Additional information on how the Policy was applied is available under ''Children's Environmental Health'' in the **SUPPLEMENTARY INFORMATION** section of this preamble.

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. We have concluded this action is not likely to have any adverse energy effects.

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

This action involves technical standards. Therefore, the EPA conducted searches for the RTR for the PQBS NESHAP and the NESHAP for COB through the Enhanced National Standards Systems Network Database managed by the American National Standards Institute (ANSI). We also contacted voluntary consensus standards (VCS) organizations and accessed and searched their databases. For COB NESHAP, we conducted searches for EPA Methods 1, 2, 2F, 2G, 3, 3A, 3B, 4, 5, 5D, 9, 18, 22 of 40 CFR part 60, appendix A, EPA Methods 303, 303A of 40 CFR part 63, appendix A. No applicable VCS were identified for EPA Methods 2F, 2G, 5D, 22, 303, and 303A. For PQBS NESHAP, searches were conducted for EPA Methods 1, 2, 2F, 2G, 3, 3A, 3B, 4, 5, 5D, 9, 23, 26, 26A, 29 of 40 CFR part 60, appendix A, EPA Methods 316 and 320 40 CFR part 63, appendix A. No applicable VCS were identified for EPA Methods 2F, 2G, 5D, and 316.

During the EPA's VCS search, if the title or abstract (if provided) of the VCS described technical sampling and analytical procedures that are similar to the EPA's reference method, the EPA reviewed it as a potential equivalent method. We reviewed all potential standards to determine the practicality of the VCS for this rule. This review requires significant method validation data that meet the requirements of EPA Method 301 for accepting alternative methods or scientific, engineering and policy equivalence to procedures in the EPA reference methods. The EPA may reconsider determinations of impracticality when additional information is available for a particular VCS.

The EPA incorporates by reference, for 40 CFR part 63, subpart CCCCC, the VCS ANSI/ASME PTC 19.10–1981 Part 10, ''Flue and Exhaust Gas Analyses,'' a method for quantitatively determining the gaseous constituents of exhausts resulting from stationary combustion and includes a description of the apparatus, and calculations which are used in conjunction with Performance Test Codes to determine quantitatively, as an acceptable alternative to EPA Method 3B of appendix A to 40 CFR part 60 for the manual procedures only and not the instrumental procedures. The manual method segment of the oxygen determination is performed through the absorption of oxygen. This VCS may be obtained from *https://webstore.ansi.org/*or from the ANSI Headquarters at 1899 L Street NW, 11th floor, Washington, DC 20036.

The EPA previously received approval to incorporate this method in § 63.309 (subpart L), where it appears in the amendatory text of this rule.

The EPA promulgates to incorporate by reference, for 40 CFR part 63, subparts CCCCC and L, the VCS ASTM D7520–16, ''Standard Test Method for Determining the Opacity of a Plume in the Outdoor Ambient Atmosphere'' is an acceptable alternative to EPA Method 9 with the following caveats:

- During the digital camera opacity technique (DCOT) certification procedure outlined in section 9.2 of ASTM D7520–16, you or the DCOT vendor must present the plumes in front of various backgrounds of color and contrast representing conditions anticipated during field use such as blue sky, trees, and mixed backgrounds (clouds and/or a sparse tree stand).
- You must also have standard operating procedures in place including daily or other frequency quality checks to ensure the equipment is within manufacturing specifications as outlined in section 8.1 of ASTM D7520–16.
- You must follow the record keeping procedures outlined in 40 CFR 63.10(b)(1) for the DCOT certification, compliance report, data sheets, and all raw unaltered JPEGs used for opacity and certification determination.
- You or the DCOT vendor must have a minimum of four (4) independent technology users apply the software to determine the visible opacity of the 300 certification plumes. For each set of 25 plumes, the user may not exceed 15 percent opacity of any one reading and the average error must not exceed 7.5 percent opacity.

This approval does not provide or imply a certification or validation of any vendor's hardware or software. The onus to maintain and verify the certification and/or training of the DCOT camera, software and operator in accordance with ASTM D7520–16 and this letter is on the facility, DCOT operator, and DCOT vendor.

The ASTM D7520–16 method describes procedures to determine the opacity of a plume, using digital imagery and associated hardware and software, where opacity is caused by PM emitted from a stationary point source in the outdoor ambient environment. The opacity of emissions is determined by the application of a DCOT that consists of a digital still camera, analysis software, and the output function's content to obtain and interpret digital images to determine and report plume opacity.

The EPA promulgates to incorporate by reference for 40 CFR part 63, subpart L, the VCS ASTM D6420–18, ''Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography/Mass Spectrometry'' is an acceptable alternative to EPA Method 18 only when the target compounds are all known and the target compounds are all listed in ASTM D6420 as measurable. This method should not be used for methane and ethane because atomic mass is less than 35. ASTM D6420 should never be specified as a total VOC method. This test method employs a direct interface gas chromatograph/mass spectrometer to identify and quantify 36 volatile organic compounds, however, the use of the method in this rule is only applicable to benzene, toluene, and xylene.

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[92] *Residual Risk Assessment for the Coke Ovens: Pushing, Quenching, and Battery Stacks Source Category in Support of the 2024 Risk and Technology Review Final Rule.* U.S. Environmental Protection Agency, Office of Air and Radiation, Office of Air Quality Planning and Standards, Research Triangle Park, NC. May 2024. Docket No. EPA–HQ–OAR–2002–0085.

[93] See *https://www.epa.gov/children/childrens-health-policy-and-plan#A1.*

The EPA promulgates to incorporate by reference, for 40 CFR part 63, subpart CCCCC, the VCS ASTM D6784–16, ''Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro 3 Method)'' is an acceptable alternative to EPA Method 29 (portion for Hg only) as a method for measuring Hg. This method applies to concentrations of approximately 0.5–100 μg/Nm^3. This test method describes equipment and procedures for obtaining samples from effluent ducts and stacks, equipment and procedures for laboratory analysis, and procedures for calculating results.

The EPA promulgates to incorporate by reference, for 40 CFR part 63, subpart CCCCC, the VCS ASTM D6348–12 (2020), ''Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform (FTIR) Spectroscopy,'' as an acceptable alternative to EPA Method 320 of appendix A to 40 CFR part 63 with caveats requiring inclusion of selected annexes to the standard as mandatory. The ASTM D6348–12 (2020) method is an extractive FTIR spectroscopy-based field test method and is used to quantify gas phase concentrations of multiple target compounds in emission streams from stationary sources. This field test method provides near real time analysis of extracted gas samples. In the September 22, 2008, NTTAA summary, ASTM D6348–03(2010) was determined equivalent to EPA Method 320 with caveats. ASTM D6348–12 (2020) is a revised version of ASTM D6348–03(2010) and includes a new section on accepting the results from direct measurement of a certified spike gas cylinder, but still lacks the caveats we placed on the D6348–03(2010) version. We are finalizing that the test plan preparation and implementation in the Annexes to ASTM D 6348–12 (2020), annexes Al through A8 are mandatory; and in ASTM D6348–12 (2020) Annex A5 (Analyte Spiking Technique), the percent (%) R must be determined for each target analyte (Equation A5.5). We are finalizing that, in order for the test data to be acceptable for a compound, %R must be 70% > R ≤ 130%. If the %R value does not meet this criterion for a target compound, the test data is not acceptable for that compound and the test must be repeated for that analyte (*i.e.,* the sampling and/or analytical procedure should be adjusted before a retest). The %R value for each compound must be reported in the test report, and all field measurements must be corrected with the calculated %R value for that compound by using the following equation:

$$Reported\,Results = \frac{Stack\ Concentration}{\%R} = 100$$

The ASTM methods are available at ASTM International at *www.astm.org* or 1100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, telephone number: (610) 832–9500, fax number: (610) 832–9555 at *service@astm.org.*

Additional information for the VCS search and determinations can be found in the memorandum *Voluntary Consensus Standard Results for Coke Ovens: Pushing, Quenching and Battery Stacks: National Emission Standards for Hazardous Air Pollutants* and *Voluntary Consensus Standard Results for Coke Oven Batteries: National Emission Standards for Hazardous Air Pollutants for Coke Oven Batteries,* available in the EPA–HQ–OAR–2002–0085, EPA–HQ–OAR–2003–0051 dockets for the promulgated rule.

The EPA is also incorporating by reference, for 40 CFR part 63, subpart L, the Quality Assurance Handbook for Air Pollution Measurement Systems, Volume IV: Meteorological Measurements, Version 2.0 (Final), March 2008 (EPA–454/B–08–002). The Quality Assurance Handbook for Air Pollution Measurement Systems; Volume IV: Meteorological Measurements is an EPA developed guidance manual for the installation, operation, maintenance and calibration of meteorological systems including the wind speed and direction using anemometers, temperature using thermistors, and atmospheric pressure using aneroid barometers, as well as the calculations for wind vector data for on-site meteorological measurements. This VCS may be obtained from the EPA's National Service Center for Environmental Publications (*https://www.epa.gov/nscep*).

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.

As discussed in section V.F. of this preamble, the population with risks greater than or equal to 1-in-1 million due to emissions from all sources of HAP at coke oven facilities is disproportionately (30 percent) African American compared to the national average (12 percent African American). About 83 percent of the 491,000 people with a cancer risk greater than or equal to 1-in-1 million live within 10 km of 3 facilities—two in Alabama and one in Pennsylvania. The population with cancer risks greater than or equal to 1-in-1 million living within 10 km of the two facilities in Alabama is 56 percent African American, which is significantly higher than the national average of 12 percent. In addition, the population with risks ≥ 1-in-1 million due to emissions from all sources of HAP at coke oven facilities that is below the poverty level (17 percent) is above the national average (13 percent).

The EPA believes that this action is not likely to change existing disproportionate and adverse effects on communities with environmental justice concerns. Although the promulgated measures are not estimated to decrease actual emissions or the number of people who have risks greater than or equal to 1-in-1 million due to HAP emissions (see table 12 of this preamble), this action will limit allowable emissions from coke ovens sources in 40 CFR part 63, subparts CCCCC and L. The EPA also is promulgating that coke oven facilities conduct fenceline monitoring for benzene and report these data electronically to the EPA. The fenceline monitoring requirements will help ensure that emissions from sources listed under CAA section 112 are being appropriately controlled. The fenceline monitoring results will be publicly available on a quarterly basis to ensure transparency and, consequently, provide fenceline communities with greater access to information about potential exposures.

The information supporting this Executive Order review is described in section V.F. of this preamble and in the document *Analysis of Demographic*

Factors for Populations Living Near Coke Oven Facilities—Final[94] located in the docket for this rule (EPA–HQ–OAR–2002–0085).

K. Congressional Review Act (CRA)

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

List of Subjects in 40 CFR Part 63

Environmental protection, Administrative practice and procedures, Air pollution control, Hazardous substances, Incorporation by reference, Intergovernmental relations, Reporting and recordkeeping requirements.

Michael S. Regan,

Administrator.

For the reasons stated in the preamble, title 40, chapter I of the Code of Federal Regulations 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. Section 63.14 is amended by revising paragraphs (f)(1), (i)(88), (96), (105), and (110), the introductory text of paragraph (o), and paragraph (o)(3) to read as follows:

§ 63.14 Incorporation by reference.

* * * * *

(f) * * *

(1) ANSI/ASME PTC 19.10–1981, Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus], issued August 31, 1981; IBR approved for §§ 63.309(k); 63.365(b); 63.457(k); 63.772(e) and (h); 63.865(b); 63.997(e); 63.1282(d) and (g); 63.1450(a), (b), (d), (e), and (g); 63.1625(b); table 5 to subpart EEEE; §§ 63.3166(a); 63.3360(e); 63.3545(a); 63.3555(a); 63.4166(a); 63.4362(a); 63.4766(a); 63.4965(a); 63.5160(d); table 4 to subpart UUUU; table 3 to subpart YYYY; table 4 to subpart AAAAA; § 63.7322(b); table 5 to subpart DDDDD; §§ 63.7822(b); 63.7824(e); 63.7825(b); 63.8000(d); table 4 to subpart JJJJJ; table 4 to subpart KKKKK; §§ 63.9307(c); 63.9323(a); 63.9621(b) and (c);table 4 to subpart SSSSS; tables 4 and 5 of subpart UUUUU; table 1 to subpart ZZZZZ; §§ 63.11148(e); 63.11155(e); 63.11162(f); 63.11163(g); table 4 to subpart JJJJJJ; §§ 63.11410(j); 63.11551(a); 63.11646(a); 63.11945.

* * * * *

(i) * * *

(88) ASTM D6348–12 (Reapproved 2020), Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, Approved February 1, 2012; IBR approved for §§ 63.365(b); 63.7322(d), (e), and (g); 63.7825(g) and (h).

* * * * *

(96) ASTM D6420–18, Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, approved November 1, 2018, IBR approved for §§ 63.305(c); 63.987(b); 63.997(e); 63.2354(b); table 5 to subpart EEEE; §§ 63.2450(j); 63.8000(d).

* * * * *

(105) ASTM D6784–16, Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), Approved March 1, 2016; IBR approved for §§ 63.1450(d); 63.9621; table 5 to subpart UUUUU; appendix A to subpart UUUUU; § 63.7322(c).

* * * * *

(110) ASTM D7520–16, Standard Test Method for Determining the Opacity of a Plume in the Outdoor Ambient Atmosphere, approved April 1, 2016; IBR approved for §§ 63.301; 63.305(c) and (f); 63.309(d), (j), and (m); 63.311(d); 63.1450(c) (e), and (g); 63.1453(h); 63.1625(b); 63.7334(a); §§ 63.7823(c) through (f), 63.7833(g); table 3 to subpart LLLLL; § 63.11423(c).

* * * * *

(o) * * *

(3) EPA–454/B–08–002, Quality Assurance Handbook for Air Pollution Measurement Systems, Volume IV: Meteorological Measurements, Version 2.0 (Final), March 2008, IBR approved for §§ 63.314(b); 63.7792(b).

* * * * *

■ 3. Effective July 15, 2024, § 63.14 is amended by revising paragraphs (f)(1) and (i)(89) and (96) to read as follows:

§ 63.14 Incorporations by reference.

* * * * *

(f) * * *

(1) ANSI/ASME PTC 19.10–1981, Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus], issued August 31, 1981; §§ 63.116(c) and (h); 63.128(a); 63.145(i); 63.309(k); 63.365(b); 63.457(k); 63.490(g); 63.772(e) and (h); 63.865(b); 63.997(e); 63.1282(d) and (g); 63.1450(a), (b), (d). (e), (g); 63.1625(b); table 5 to subpart EEEE; §§ 63.3166(a); 63.3360(e); 63.3545(a); 63.3555(a); 63.4166(a); 63.4362(a); 63.4766(a); 63.4965(a); 63.5160(d); table 4 to subpart UUUU; table 3 to subpart YYYY; table 4 to subpart AAAAA; § 63.7322(b); table 5 to subpart DDDDD; §§ 63.7822(b); 63.7824(e); 63.7825(b); 63.8000(d); table 4 to subpart JJJJJ; table 4 to subpart KKKKK; §§ 63.9307(c); 63.9323(a); 63.9621(b) and (c);table 4 to subpart SSSSS; tables 4 and 5 of subpart UUUUU; table 1 to subpart ZZZZZ; §§ 63.11148(e); 63.11155(e); 63.11162(f); 63.11163(g); table 4 to subpart JJJJJJ; §§ 63.11410(j); 63.11551(a); 63.11646(a); 63.11945.

* * * * *

(i) * * *

(89) ASTM D6348–12 (Reapproved 2020), Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, Approved February 1, 2012; IBR approved for §§ 63.109(a); 63.365(b); 63.509(a); 63.7322(d), (e), and (g); 63.7825(g) and (h).

* * * * *

(96) ASTM D6420–18, Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, approved November 1, 2018' IBR approved for §§ 63.101(b); 63.115(g); 63.116(c); 63.126(d); 63.128(a); 63.139(c); 63.145(d) and (i); 63.150(g); 63.180(d; 63.305(c); 63.482(b); 63.485(t); 63.488(b); 63.490(c) and (e); 63.496(b); 63.500(c); 63.501(a); 63.502(j); 63.503(a) and (g); 63.525(a) and (e); 63.987(b); 63.997(e); 63.2354(b); table 5 to subpart EEEE; §§ 63.2450(j); 63.8000(d).

* * * * *

Subpart L—National Emission Standards for Coke Oven Batteries

■ 4. Section 63.300 is amended by revising paragraphs (b) and (e) to read as follows:

§ 63.300 Applicability.

* * * * *

(b) The provisions for new sources in §§ 63.302(b) and (c) and 63.303(b) apply to each greenfield coke oven battery and to each new or reconstructed coke oven battery at an existing coke plant if the changes to or addition of a coke oven battery results in an increase in the design capacity of the coke plant as of

[94] *Analysis of Demographic Factors for Populations Living Near Coke Oven Facilities—Final.* U.S. Environmental Protection Agency, Research Triangle Park, North Carolina. May 2024. Docket ID Nos. EPA–HQ–OAR–2002–0085 and EPA–HQ–OAR–2003–0051.

November 15, 1990, (including any capacity qualifying under § 63.304(b)(6), and the capacity of any coke oven battery subject to a construction permit on November 15, 1990, which commenced operation before October 27, 1993.

* * * * *

(e) The emission limitations set forth in this subpart shall apply at all times. At all times, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

* * * * *

■ 5. Section 63.301 is amended by:

■ a. Adding a definition in alphabetical order for ''Bypass stack'';

■ b. Revising the definitions for ''By-product coke oven battery'' and ''Certified observer'';

■ c. Adding definitions in alphabetical order for ''Corrective action'', ''Day'', ''Fenceline'', ''Heat and/or nonrecovery coke oven battery'', ''Heat recovery steam generator'', ''Heat recovery steam generator bypass/waste heat stack'', ''Heat recovery steam generator main stack'';

■ d. Revising the definition for ''Nonrecovery coke oven battery'';

■ e. Adding definitions in alphabetical order for ''Not tall oven battery'';

■ f. Revising the definition for ''Pushing'';

■ g. Adding definitions in alphabetical order for ''Pushing/charging machine (PCM)'' and ''Root cause analysis'';

■ h. Revising the definition for ''Short coke oven battery''; and

■ i. Adding a definition in alphabetical order for ''Waste heat stack''.

The additions and revisions read as follows:

§ 63.301 Definitions.

* * * * *

Bypass stack at a heat recovery facility means a stack through which emissions are discharged from a common tunnel that collects gases from a coke oven battery. and where the emissions are not passed through a heat recovery unit. Common tunnels typically are equipped with afterburners to further reduce organic emissions in the coke oven gas.

By-product coke oven battery means a source consisting of a group of ovens connected by common walls, where coal undergoes destructive distillation under positive pressure to produce coke and coke oven gas, from which by-products are recovered.

Certified observer means a visual emission observer, certified under (if applicable) Method 303 and Method 9 or ASTM D7520–16 (if applicable; see § 63.14 for availability) and employed by the Administrator, which includes a delegated enforcement agency or its designated agent. For the purpose of notifying an owner or operator of the results obtained by a certified observer, the person does not have to be certified.

* * * * *

Corrective action means the design, operation and maintenance changes that one takes consistent with good engineering practice to reduce or eliminate the likelihood of the recurrence of the primary cause and any other contributing cause(s) of an event identified by a root cause analysis as having resulted in a discharge of gases from an affected facility in excess of specified thresholds.

Day for monitoring purposes means any operation of the unit of more than three hours total for any time in the 24-hour period between 12:00 a.m. on one calendar day and 12:00 a.m. on the next calendar day.

* * * * *

Fenceline is a location on the border of the coke oven manufacturing facility property.

* * * * *

Heat and/or nonrecovery coke oven battery means a group of ovens, connected by common side walls, in which coal undergoes destructive distillation under negative pressure to produce coke and coke oven gas and from which by-products are not recovered. The common tunnels typically contain afterburners to further reduce organic emissions in the coke oven gas. For nonrecovery plants (*i.e.,* no chemical recovery) with heat recovery, the oven gases are vented through common tunnels to a heat recovery steam generator that produces steam. Heat recovery coke oven batteries may release oven gases through common tunnels and then into the atmosphere through bypass stacks when the heat recovery steam generators are not available due to maintenance or repair. For nonrecovery coke oven batteries (*i.e.,* no chemical recovery) without heat recovery, oven gases are vented through common tunnels and then released to the atmosphere through waste heat stacks.

Heat recovery steam generator is a process unit that recovers heat from coke oven gas in order to produce steam. Units typically are equipped with desulfurization units and baghouses to remove pollutants from the exhaust gases.

Heat recovery steam generator bypass/waste heat stack means a stack that allows coke oven gas to be vented from the coke oven batteries through common tunnels and into the atmosphere when there are no heat recovery steam generator units available for heat recovery. Common tunnels typically are equipped with afterburners to further reduce organic emissions in the coke oven gas.

Heat recovery steam generator main stack means the stack that is the point of final discharge to the atmosphere of the gases emanating from a heat recovery steam generator and its control devices, which typically are desulfurization units and baghouses.

* * * * *

Nonrecovery coke oven battery means a source consisting of a group of ovens connected by common walls, where coal undergoes destructive distillation under negative pressure to produce coke, and which is designed for the combustion of the coke oven gas from which by-products are not recovered. Also known as a heat and/or nonrecovery battery. Nonrecovery coke oven battery refers to units from which heat is recovered from the coke oven gas exhaust as well as units where heat is not recovered. Both heat and/or nonrecovery batteries are connected by common tunnels that typically include afterburners to further reduce organic emissions in the coke oven gas.

Not tall oven battery means a coke oven battery with ovens less than 6 meters (20 feet) in height.

* * * * *

Pushing, for the purposes of § 63.305, means the coke oven operation that commences when the pushing ram starts into the oven to push out coke that has completed the coking cycle and ends when the quench car is clear of the coke side shed.

Pushing/charging machine (PCM) means the combined coke oven pushing and charging machine operated on rail tracks to open an oven door, push the finished coke from the open oven, and close the oven door, and to charge the adjacent oven with coal to start the coking cycle. Typically used with horizontal ovens such as those at nonrecovery coke facilities.

Root cause analysis is an assessment conducted through a process of investigation to determine the primary underlying cause and all other contributing causes to an exceedance of an action level set forth in this rule.

* * * * *

Short coke oven battery means a coke oven battery with ovens less than 6 meters (20 feet) in height. Also called a ''not tall'' oven battery.

* * * * *

Waste heat stack at a heat and/or nonrecovery facility means a stack that allows coke oven gas to be vented from the coke oven batteries through common tunnels and into the atmosphere when there are no units available for heat recovery. Common tunnels typically contain afterburners to further reduce organic emissions in coke oven gas.

■ 6. Section 63.302 is amended by:

■ a. Adding paragraph (a)(4); and

■ b. Revising paragraph (d).

The addition and revision read as follows:

§ 63.302 Standards for by-product coke oven batteries.

(a) * * *

(4) On and after July 7, 2025:

(i) for facilities with coke production capacity more than or equal to 3 million tpy coke and as determined by the procedures in § 63.309(d)(1), 2.5 percent leaking coke oven doors for each tall by-product coke oven battery and 1.7 percent leaking coke oven doors for each not tall by-product coke oven battery;

(ii) for facilities with coke production capacity less than 3 million tpy coke and as determined by the procedures in § 63.309(d)(1), 3.8 percent leaking coke oven doors for each tall by-product coke oven battery and 3.2 percent leaking coke oven doors for each not tall by-product coke oven battery;

(iii) 0.32 percent leaking topside port lids, as determined by the procedures in § 63.309(d)(1);

(iv) 2.1 percent leaking offtake system(s), as determined by the procedures in § 63.309(d)(1); and

(v) 12 seconds of visible emissions per charge, as determined by the procedures in § 63.309(d)(2).

* * * * *

(d) Emission limitations and requirements applied to each coke oven battery utilizing a new recovery technology shall be less than the following emission limitations or shall result in an overall annual emissions rate for coke oven emissions for the battery that is lower than that obtained by the following emission limitations on and after July 7, 2025:

(1) Coke oven doors on by-product coke oven batteries at facilities with production capacity more than or equal to 3 million tpy coke:

(i) 2.5 percent leaking coke oven doors on tall by-product coke oven batteries, as defined in § 63.301 and as determined by the procedures in § 63.309(d)(1); and

(ii) 1.7 percent leaking coke oven doors for each not tall by-product coke oven battery, as determined by the procedures in § 63.309(d)(1);

(2) For coke oven doors on by-product coke oven batteries at facilities with coke production capacity less than 3 million tpy coke:

(i) 3.8 percent leaking coke oven doors on tall by-product coke oven batteries, as determined by the procedures in § 63.309(d)(1); and

(ii) 3.2 percent leaking coke oven doors on not tall by-product coke oven batteries, as determined by the procedures in § 63.309(d)(1);

(3) 2.1 percent leaking offtake system(s), as determined by the procedures in § 63.309(d)(1);

(4) 0.32 percent leaking topside port lids, as determined by the procedures in § 63.309(d)(1); and

(5) 12 seconds of visible emissions per charge, as determined by the procedures in § 63.309(d)(2).

■ 7. Section 63.303 is amended by revising paragraphs (a)(1), (b)(1), and (c) introductory text to read as follows:

§ 63.303 Standards for nonrecovery coke oven batteries.

(a) * * *

(1) For coke oven doors and common tunnels;

(i) 0.0 percent leaking coke oven doors, as determined by the procedures in § 63.309(d)(1); and

(ii) The owner or operator shall monitor and record, once per day for each day of operation, the pressure in each oven or in each common battery tunnel during pushing, charging, and coking to ensure that the ovens are operated under a negative pressure.

(iii) The date for compliance with (a)(1)(i) and (ii) of this section is on and after July 7, 2025.

* * * * *

(b) * * *

(1) For coke oven doors and common tunnels;

(i) 0.0 percent leaking coke oven doors, as determined by the procedures in § 63.309(d)(1); and

(ii) The owner or operator shall monitor and record, once per day for each day of operation, the pressure in each oven or in each common battery tunnel during pushing, charging, and coking to ensure that the ovens are operated under a negative pressure.

(iii) The date for compliance with (b)(1)(i) and (ii) of this section is on and after July 7, 2025, or upon initial startup, whichever is later.

* * * * *

(c) Except as provided in § 63.304(a), (b), and (d), the owner or operator of any nonrecovery coke oven battery shall meet the work practice standards in paragraphs (c)(1) and (2) of this section.

* * * * *

■ 8. Section 63.304 is amended by:

■ a. Revising paragraph (b)(6);

■ b. Designating the undesignated paragraph following paragraph (b)(6)(v) as (b)(7)

■ c. Adding paragraph (b)(8).

The revision and addition read as follows:

§ 63.304 Standards for compliance date extension.

* * * * *

(b) * * *

(6) The owner or operator of a cold-idle coke oven battery that shut down prior to November 15, 1990, shall submit a written request to the Administrator to include the battery in the design capacity of a coke plant as of November 15, 1990. A copy of the request shall also be sent to Director, Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, NC 27711. The Administrator will review and approve or disapprove a request according to the following procedures:

(i) Requests will be reviewed for completeness in the order received. A complete request shall include:

(A) Battery identification;

(B) Design information, including the design capacity and number and size of ovens; and

(C) A brief description of the owner or operator's plans for the cold-idle battery, including a statement whether construction of a padup rebuild or a brownfield coke oven battery is contemplated.

(ii) A complete request shall be approved if the design capacity of the battery and the design capacity of all previous approvals does not exceed the capacity limit in paragraph (b)(6)(i)(C) of this section.

(iii) The total nationwide coke capacity of coke oven batteries that receive approval under paragraph (b)(6) of this section shall not exceed 2.7 million Mg/yr (3.0 million ton/yr).

(iv) If a construction permit is required, an approval shall lapse if a construction permit is not issued within 3 years of the approval date, or if the construction permit lapses.

(v) If a construction permit is not required, an approval will lapse if the battery is not restarted within 2 years of the approval date.

(7) The owner or operator of a by-product coke oven battery with fewer than 30 ovens may elect to comply with an emission limitation of 2 or fewer leaking coke oven doors, as determined by the procedures in § 63.309(d)(4), as an alternative to the emission limitation for coke oven doors in paragraphs (b)(2)(i), (b)(3) (i) through (ii), (b)(4)(i), (b)(5), and (b)(6) of this section.

(8) On and after July 7, 2025:

(i) 2.5 percent leaking coke oven doors on each tall by-product coke oven battery and for each by-product coke oven battery owned or operated by a foundry coke producer, as determined by the procedures in § 63.309(d)(1) for facilities with production capacity greater than 3 million tpy coke or 1.7 percent leaking coke oven doors for each not tall by-product coke oven battery and for each by-product coke oven battery owned or operated by a foundry coke producer, as determined by the procedures in § 63.309(d)(1) for facilities with production capacity greater than 3 million tpy coke; and

(ii) 3.8 percent leaking coke oven doors on each tall by-product coke oven battery and for each by-product coke oven battery owned or operated by a foundry coke producer, as determined by the procedures in § 63.309(d)(1) for facilities with production capacity less than 3 million tpy coke or 3.2 percent leaking coke oven doors for each not tall by-product coke oven battery and for each by-product coke oven battery owned or operated by a foundry coke producer, as determined by the procedures in § 63.309(d)(1) for facilities with production capacity less than 3 million tpy coke.

* * * * *

■ 9. Section 63.305 is amended by:

■ a. Adding paragraph (c)(3)(iii); and.

■ b. Revising paragraphs (c)(5)(ii)(A) and (f)(4).

The addition and revisions read as follows:

§ 63.305 Alternative standards for coke oven doors equipped with sheds.

* * * * *

(c) * * *

(3) * * *

(iii) Alternatively, ASTM D7520–16, (incorporated by reference, see § 63.14) may be used with the following conditions:

(A) During the digital camera opacity technique (DCOT) certification procedure outlined in section 9.2 of ASTM D7520–16 (incorporated by reference, see § 63.14), the owner or operator or the DCOT vendor must present the plumes in front of various backgrounds of color and contrast representing conditions anticipated during field use such as blue sky, trees, and mixed backgrounds (clouds and/or a sparse tree stand).

(B) The owner or operator must also have standard operating procedures in place including daily or other frequency quality checks to ensure the equipment is within manufacturing specifications as outlined in section 8.1 of ASTM D7520–16 (incorporated by reference, see § 63.14).

(C) The owner or operator must follow the recordkeeping procedures outlined in § 63.10(b)(1) for the DCOT certification, compliance report, data sheets, and all raw unaltered JPEGs used for opacity and certification determination.

(D) The owner or operator or the DCOT vendor must have a minimum of four independent technology users apply the software to determine the visible opacity of the 300 certification plumes. For each set of 25 plumes, the user may not exceed 15 percent opacity of anyone reading and the average error must not exceed 7.5 percent opacity.

(E) Use of this approved alternative does not provide or imply a certification or validation of any vendor's hardware or software. The onus to maintain and verify the certification and/or training of the DCOT camera, software, and operator in accordance with ASTM D7520–16 (incorporated by reference, see § 63.14) and these requirements is on the facility, DCOT operator, and DCOT vendor.

* * * * *

(5) * * *

(ii) * * *

(A) Measure the total emission rate of benzene, toluene, and xylene exiting the control device using Method 18 in appendix A–6 to 40 CFR part 60 and the emission rate of benzene soluble organics entering the control device as described in the test plan submitted pursuant to paragraph (b) of this section. The voluntary consensus standard ASTM D6420–18, (incorporated by reference, see § 63.14) is an acceptable alternative to EPA Method 18 for benzene, toluene, and xylene; or

* * * * *

(f) * * *

(4) The opacity of emissions from the control device for the shed shall be monitored in accordance with the requirements of either paragraph (f)(4)(i) or (ii) of this section, at the election of the owner or operator.

(i) The owner or operator shall install, operate, and maintain a continuous opacity monitor, and record the output of the system, for the measurement of the opacity of emissions discharged from the emission control system per §§ 63.300(e) and 63.8(d)(1) and (2).

(A) Each continuous opacity monitoring system shall meet the requirements of Performance Specification 1 in appendix B to 40 CFR part 60; and

(B) Each continuous opacity monitoring system shall be operated, calibrated, and maintained according to the procedures and requirements specified in 40 CFR part 52; and

(C) The owner or operator shall keep the written procedures required by § 63.8(d)(1) and (2) on record for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Administrator. If the performance evaluation plan is revised, the owner or operator shall keep previous (*i.e.,* superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. The program of corrective action should be included in the plan required under § 63.8(d)(2); or

(ii) A certified observer shall monitor and record at least once each day during daylight hours, opacity observations for the control device for the shed using Method 9 in appendix A–4 to 40 CFR part 60. Alternatively, ASTM D7520–16, (incorporated by reference, see § 63.14) may be used with the following conditions:

(A) During the digital camera opacity technique (DCOT) certification procedure outlined in section 9.2 of ASTM D7520–16 (incorporated by reference, see § 63.14), the owner or operator or the DCOT vendor must present the plumes in front of various backgrounds of color and contrast representing conditions anticipated during field use such as blue sky, trees, and mixed backgrounds (clouds and/or a sparse tree stand).

(B) The owner or operator must also have standard operating procedures in place including daily or other frequency quality checks to ensure the equipment is within manufacturing specifications as outlined in section 8.1 of ASTM D7520–16 (incorporated by reference, see § 63.14).

(C) The owner or operator must follow the recordkeeping procedures outlined in § 63.10(b)(1) for the DCOT certification, compliance report, data sheets, and all raw unaltered JPEGs used for opacity and certification determination.

(D) The owner or operator or the DCOT vendor must have a minimum of four independent technology users apply the software to determine the visible opacity of the 300 certification plumes. For each set of 25 plumes, the user may not exceed 15 percent opacity of anyone reading and the average error must not exceed 7.5 percent opacity.

(E) Use of this approved alternative does not provide or imply a certification or validation of any vendor's hardware or software. The onus to maintain and verify the certification and/or training of the DCOT camera, software, and operator in accordance with ASTM D7520–16 (incorporated by reference, see § 63.14) and these requirements is on the facility, DCOT operator, and DCOT vendor.

* * * * *

■ 10. Section 63.309 is amended by revising paragraphs (a) introductory text, (d)(1), (2), and (5), (g), (j)(1), (k) introductory text, (k)(1) introductory text, (k)(1)(iii), and (m) to read as follows:

§ 63.309 Performance tests and procedures.

(a) Except as otherwise provided, a daily performance test shall be conducted each day, 7 days per week for each new and existing coke oven battery, the results of which shall be used in accordance with procedures specified in this subpart to determine compliance with each of the applicable visible emission limitations for coke oven doors, topside port lids, offtake systems, and charging operations in this subpart. If a facility pushes and charges only at night, then that facility must, at its option, change their schedule and charge during daylight hours or provide adequate lighting so that visible emission inspections can be made at night. ''Adequate lighting'' will be determined by the enforcement agency. The performance test should be based on representative performance (*i.e.,* performance based on the entire range of normal operating conditions) of the affected source for the period being tested. Representative conditions exclude periods of startup and shutdown. You may not conduct performance tests during periods of malfunction. You must record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent the entire range of normal operations, including operational conditions for maximum emissions if such emissions are not expected during maximum production. You shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

* * * * *

(d) * * *

(1) The 30-run rolling average of the percent leaking coke oven doors, topside port lids, and offtake systems on each coke oven battery, using the equations in sections 12.5, 12.6, and 12.7 of Method 303 (or section 12 of Method 303A) in appendix A to this part;

(2) For by-product coke oven battery charging operations, the logarithmic 30-day rolling average of the seconds of visible emissions per charge for each battery, using the equation in section 12.4 of Method 303 in appendix A to this part;

* * * * *

(5) For an approved alternative emission limitation for coke oven doors according to § 63.305, the weekly or monthly observation of the percent leaking coke oven doors using Method 303 in appendix A to this part, the percent opacity of visible emissions from the control device for the shed using Method 9 in appendix A–4 to 40 CFR part 60 or ASTM D7520–16 (incorporated by reference, see § 63.14), and visible emissions from the shed using Method 22 in appendix A–7 to 40 CFR part 60;

* * * * *

(g) Compliance with the alternative standards for nonrecovery coke oven batteries in § 63.303; shed inspection, maintenance requirements, and monitoring requirements for parameters affecting the shed exhaust or pushing/charging machine or equivalent device flow rate for batteries subject to alternative standards for coke oven doors under § 63.305; work practice emission control plan requirements in § 63.306; standards for bypass/bleeder stacks in § 63.307; and standards for collecting mains in § 63.308 is to be determined by the enforcement agency based on review of records and inspections.

* * * * *

(j) * * *

(1) Using a certified observer, determine the average opacity of five consecutive charges per week for each charging emissions capture system if charges can be observed according to the requirements of Method 9 in appendix A–4 to 40 CFR part 60 or ASTM D7520–16 (as applicable; incorporated by reference, see § 63.14), except as specified in paragraphs (j)(1)(i) and (ii) of this section.

(i) Instead of the procedures in section 2.4 of Method 9 in appendix A–4 to 40 CFR part 60 or section 8.4 of ASTM D7520–16 (as applicable; incorporated by reference, see § 63.14), record observations to the nearest 5 percent at 15-second intervals for at least five consecutive charges.

(ii) Instead of the procedures in section 2.5 of Method 9 in appendix A–4 to 40 CFR part 60 or section 8.5 of ASTM D7520–16 (as applicable; incorporated by reference, see § 63.14), determine and record the highest 3-minute average opacity for each charge from the consecutive observations recorded at 15-second intervals.

* * * * *

(k) The owner or operator of a new nonrecovery coke oven battery shall conduct a performance test to demonstrate initial compliance with the emission limitations for a charging emissions control device in § 63.303(d)(2) within 180 days of the compliance date that is specified for the affected source in § 63.300(a)(4) and report the results in the notification of compliance status. The owner or operator shall prepare a site-specific test plan according to the requirements in § 63.7(c) and shall conduct each performance test according to the requirements in paragraphs (a) and (k)(1) through (4) of this section.

(1) Determine the concentration of PM according to the following test methods in appendices A–1 through A–3 to 40 CFR part 60

* * * * *

(iii) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas. You may also use as an alternative to Method 3B, the manual method (but not instrumental procedures) for measuring the oxygen, carbon dioxide, and carbon monoxide content of exhaust gas, ANSI/ASME PTC 19.10–1981 (incorporated by reference, see § 63.14).

* * * * *

(m) Visible emission observations of a charging emissions control device required by § 63.303(d)(3)(iii) must be performed by a certified observer according to Method 9 in appendix A–4 to 40 CFR part 60 or ASTM D7520–16 (as applicable; incorporated by reference, see § 63.14) for one 6-minute period.

■ 11. Remove and reserve § 63.310.

§ 63.310 [Removed and Reserved]

■ 12. Section 63.311 is amended by:

■ a. Removing paragraphs (b)(2) and (5).

■ b. Redesignating paragraphs (b)(3) and (4) as paragraphs (b)(2) and (3), and paragraphs (b)(6) and (7) as paragraphs (b)(4) and (5);
■ c. Revising and republishing paragraphs (d);
■ d. Revising paragraphs (e), (f) introductory text, (f)(1)(iv), and (f)(2)(ii)(A);
■ e. Removing paragraph (f)(6).
■ f. Adding a paragraph heading to paragraph (g);
■ g. Revising paragraph (g)(1); and
■ h. Adding paragraphs (h) through (l).

The revisions and additions read as follows:

§ 63.311 Reporting and recordkeeping requirements.

* * * * *

(d) *Semiannual compliance certification.* The owner or operator of a coke oven battery shall include the following information in the semiannual compliance certification:

(1) Certification, signed by the owner or operator, that no coke oven gas was vented, except through the bypass/bleeder stack flare system of a by-product coke oven battery during the reporting period or that a venting report has been submitted according to the requirements in paragraph (e) of this section.

(2) Certification, signed by the owner or operator, that work practices were implemented if applicable under § 63.306.

(3) Certification, signed by the owner or operator, that all work practices for nonrecovery coke oven batteries were implemented as required in § 63.303(b)(3).

(4) Certification, signed by the owner or operator, that all coke oven door leaks on a nonrecovery battery were stopped according to the requirements in § 63.303(c)(2) and (3). If a coke oven door leak was not stopped according to the requirements in § 63.303(c)(2) and (3), or if the door leak occurred again during the coking cycle, the owner or operator must report the information in paragraphs (d)(4)(i) through (iv) of this section.

(i) The oven number of each coke oven door for which a leak was not stopped according to the requirements in § 63.303(c)(2) and (3) or for a door leak that occurred again during the coking cycle.

(ii) The total duration of the leak from the time the leak was first observed.

(iii) The cause of the leak (including unknown cause, if applicable), any actions taken to minimize emissions in accordance with and § 63.300(e), the corrective action taken to stop the leak.

(iv) Whether the failure occurred during a period of startup, shutdown or malfunction.

(5) Certification, signed by the owner or operator, that the opacity of emissions from charging operations for a new nonrecovery coke oven battery did not exceed 20 percent. If the opacity limit in § 63.303(d)(1) was exceeded, the owner or operator must report the number, duration, and cause of the deviation (including unknown cause, if applicable), and the corrective action taken

(6) Before September 3, 2024, report the results of any PM performance test for a charging emissions control device for a new nonrecovery coke oven battery conducted during the reporting period as required in § 63.309(l). Beginning on September 3, 2024, report PM performance test results according to paragraph (i) of this section.

(7) Certification, signed by the owner or operator, that all work practices for a charging emissions control device for a new nonrecovery coke oven battery were implemented as required in § 63.303(d)(3). If a Method 9 in appendix A–4 to 40 CFR part 60 or ASTM D7520–16 (as applicable; incorporation by reference, see § 63.14) visible emissions observation exceeds 10 percent, the owner or operator must report the duration and cause of the deviation (including unknown cause, if applicable), and the corrective action taken.

(8) Certification, signed by the owner or operator, that all work practices for oven dampers on a new nonrecovery coke oven battery were implemented as required in § 63.303(d)(4).

(9) Facility name and address (including the county) and the beginning and ending date of the reporting period.

(e) *Report for the venting of coke oven gas other than through a flare system.* The owner or operator shall report any venting of coke oven gas through a bypass/bleeder stack that was not vented through the bypass/bleeder stack flare system to the Administrator as soon as practicable but no later than 24 hours after the beginning of the event. A written or electronic report shall be submitted within 30 days of the event and shall include a description of the event and, if applicable, a copy of the notification for a hazardous substance release required pursuant to 40 CFR 302.6.

(f) *Recordkeeping.* The owner or operator shall maintain files of all required information in a permanent form suitable for inspection at an onsite location for at least 1 year and must thereafter be accessible within 3 working days to the Administrator for the time period specified in 40 CFR 70.6(a)(3)(ii)(B). Copies of the work practice plan developed under § 63.306 shall be kept onsite at all times. The owner or operator shall record the occurrence and duration of each startup, shutdown, or malfunction of process, air pollution control, and monitoring equipment, and maintain the following information:

(1) * * *

(iv) Records to demonstrate compliance with the work practice requirement for door leaks in § 63.303(c). These records must include the oven number of each leaking door, total duration of the leak from the time the leak was first observed, the cause of the leak (including unknown cause, if applicable), the corrective action taken to return the affected unit to its normal or usual manner operation, and the amount of time taken to stop the leak from the time the leak was first observed. Beginning on January 2, 2025, an estimate of the quantity of each regulated pollutant emitted over any emission limit, a description of the method used to estimate the emissions, and whether the failure occurred during a period of startup, shutdown or malfunction. If you failed to meet an applicable standard, the compliance report must include the start date, start time, cause, and duration (in hours) of each failure. For each failure, beginning on January 2, 2025, the compliance report must include a list of the affected sources or equipment, actions taken to minimize emissions, an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions.

* * * * *

(2) * * *

(ii) * * *

(A) Records of opacity readings from the continuous opacity monitor for the control device for the shed. Beginning on January 2, 2025, if you failed to meet an applicable standard, the compliance report must include whether the failure occurred during a period of startup, shutdown, or malfunction of process, air pollution control, and monitoring equipment; the start date, start time, and duration (in hours) of each failure; and any corrective actions taken to return the affected unit to its normal or usual manner of operation. For each failure, beginning on January 2, 2025, the compliance report must include a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions; and

* * * * *

(g) *Record availability.* * * *

(1) Requests under paragraph (g) of this section shall be submitted in writing or electronically, and shall identify the records or reports that are subject to the request with reasonable specificity;

* * * * *

(h) *Electronic reporting of compliance certification reports.* Beginning on July 7, 2025, or once the report template for this subpart has been available on the EPA's Compliance and Emissions Data Reporting Interface (CEDRI) website for one year, whichever date is later, submit all subsequent reports to the EPA via the CEDRI according to § 63.9(k) except that confidential business information (CBI) should be submitted according to paragraph (k) of this section.

(i) *Electronic Reporting of Performance Tests.* Beginning on September 3, 2024, within 60 days after the date of completing each performance test required by this subpart, you must submit the results of the performance test following the procedure specified in § 63.9(k) except that CBI should submitted be according to paragraph (k) of this section. Data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (*https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert*) at the time of the test must be submitted in a file format generated using the EPA's ERT. Alternatively, you may submit an electronic file consistent with the extensible markup language (XML) schema listed on the EPA's ERT website. Data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test must be included as an attachment in the ERT or alternate electronic file. If a performance test consists only of opacity or EPA Method 303 measurements, reporting using the ERT and CEDRI is not required.

(j) *Fenceline monitoring reporting.* For fenceline monitoring systems subject to § 63.314 of this subpart, each owner or operator must submit fenceline monitoring reports on a quarterly basis using the appropriate electronic template on the CEDRI website (*https://www.epa.gov/electronic-reporting-air-emissions/cedri*) for this subpart and following the procedure specified in § 63.9(k), except any medium submitted through mail must be sent to the attention of the Coke Ovens Sector Lead. The first quarterly report must cover the period beginning on the compliance date that is specified in § 63.314(a) of this subpart and ending on March 31, June 30, September 30 or December 31, whichever date is the first date that occurs after the owner or operator has completed at least one sampling period. Each subsequent quarterly report must cover one of the following reporting periods: Quarter 1 from January 1 through March 31; Quarter 2 from April 1 through June 30; Quarter 3 from July 1 through September 30; and Quarter 4 from October 1 through December 31. Each quarterly report must be electronically submitted no later than 45 calendar days following the end of the reporting period.

(1) Facility name and address (including the county).

(2) Year and reporting quarter (*i.e.,* Quarter 1, Quarter 2, Quarter 3, or Quarter 4).

(3) For each passive tube monitor: The latitude and longitude location coordinates; the sampler name; and identification of the type of sampler (*i.e.,* regular monitor, extra monitor, duplicate, field blank, inactive). Coordinates must be in decimal degrees with at least five decimal places.

(4) The beginning and ending dates for each sampling period.

(5) Individual sample results for benzene reported in units of micrograms per cubic meter ($\mu g/m^3$) for each monitor for each sampling period that ends during the reporting period. Results below the method detection limit shall be flagged as below the detection limit and reported at the method detection limit. Where individual sample results are corrected according to a site specific monitoring plan according to § 63.314(f), both the original and the corrected results are reported.

(6) Data flags that indicate each monitor that was skipped for the sampling period, if the owner or operator uses an alternative sampling frequency under § 63.314(a)(2)(iii).

(7) Data flags for each outlier determined in accordance with section 9.2 of Method 325A in appendix A to this part. For each outlier, the owner or operator must submit the individual sample result of the outlier, as well as the evidence used to conclude that the result is an outlier.

(8) The biweekly concentration difference (Δc) for benzene for each sampling period and, beginning the first quarterly report with sufficient data to calculate an annual average, the annual average Δc for benzene for each sampling period.

(9) Indication of whether the owner or operator was required to develop a corrective action plan under § 63.314(e) of this subpart.

(k) *Confidential business information (CBI).* For notifications and reports required to be submitted to CEDRI:

(1) The EPA will make all the information submitted through CEDRI available to the public without further notice to you. Do not use CEDRI to submit information you claim as CBI. Although we do not expect persons to assert a claim of CBI, if you wish to assert a CBI claim for some of the information submitted under paragraphs (h) or (i) of this section, you must submit a complete file, including information claimed to be CBI, to the EPA.

(2) For performance test reports according to paragraph (j) of this section, the file must be generated using the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website.

(3) Clearly mark the part or all of the information that you claim to be CBI. Information not marked as CBI may be authorized for public release without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.

(4) The preferred method to receive CBI is for it to be transmitted electronically using email attachments, File Transfer Protocol, or other online file sharing services. Electronic submissions must be transmitted directly to the OAQPS CBI Office at the email address *oaqpscbi@epa.gov,* and as described above, should include clear CBI markings. For performance test reports, the CBI should be flagged to the attention of the Group Leader, Measurement Policy Group; for all other reports and notifications, to the attention of the Coke Ovens Sector Lead. If assistance is needed with submitting large electronic files that exceed the file size limit for email attachments, and if you do not have your own file sharing service, please email *oaqpscbi@epa.gov* to request a file transfer link.

(5) If you cannot transmit the file electronically, you may send CBI information through the postal service to the following address: OAQPS Document Control Officer (C404–02), OAQPS, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, Attention Group Leader, Measurement Policy Group or Coke Oven Sector Lead as indicated in paragraph (k)(4) of this section. The mailed CBI material should be double wrapped and clearly marked. Any CBI

markings should not show through the outer envelope.

(6) All CBI claims must be asserted at the time of submission. Anything submitted using CEDRI cannot later be claimed CBI. Furthermore, under CAA section 114(c), emissions data is not entitled to confidential treatment, and the EPA is required to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available.

(7) You must submit the same file submitted to the CBI office with the CBI omitted to the EPA via the EPA's CDX as described in paragraphs (h), (i), or (j) of this section.

(l) *Fenceline monitoring recordkeeping.* For fenceline monitoring systems subject to § 63.314, each owner or operator shall keep the records specified in paragraphs (l)(1) through (10) of this section on an ongoing basis.

(1) Coordinates of all fenceline monitors, including co-located samplers and field blanks, and if applicable, the meteorological station. The owner or operator shall determine the coordinates using an instrument with an accuracy of at least 3 meters. The coordinates shall be in decimal degrees with at least five decimal places.

(2) The start and stop times and dates for each sample, as well as the tube identifying information.

(3) Sampling period average temperature and barometric pressure measurements.

(4) For each outlier determined in accordance with Section 9.2 of Method 325A in appendix A to this part, the sampler location of and the concentration of the outlier and the evidence used to conclude that the result is an outlier.

(5) For samples that will be adjusted for a background, the location of and the concentration measured simultaneously by the background sampler(s), and the perimeter samplers to which it applies.

(6) Individual sample results, the calculated Δc for benzene for each sampling period and the two samples used to determine it, whether background correction was used, and the annual average Δc calculated after each sampling period.

(7) Method detection limit for each sample, including co-located samples and blanks.

(8) Documentation of the root cause analysis and any corrective action taken each time the action level was exceeded, including the dates the root cause analysis was initiated and the resulting correction action(s) were taken.

(9) Any corrective action plan developed under § 63.314(e).

(10) Other records as required by Methods 325A and 325B in appendix A to this part.

(11) If a near-field source correction is used as provided in § 63.314(f), or if an alternative test method is used that provides time-resolved measurements, records of hourly meteorological data, including temperature, barometric pressure, wind speed and wind direction, calculated daily unit vector wind direction and daily sigma theta, and other records specified in the site-specific monitoring plan.

■ 13. Section 63.313 is amended by adding paragraph (d)(6) to read as follows:

§ 63.313 Implementation and enforcement.

* * * * *

(d) * * *

(6) Approval of an alternative to any electronic reporting to the EPA required by this subpart.

■ 14. Add § 63.314 to subpart L to read as follows:

§ 63.314 Fenceline monitoring provisions.

For each by-product coke oven battery facility as defined in § 63.301 of this subpart, beginning no later than July 7, 2025, the owner or operator of a coke manufacturing facility shall conduct sampling along the facility property boundary and analyze the samples in accordance with paragraphs (a) through (g) of this section.

(a) The owner or operator must conduct sampling along the facility property boundary and analyze the samples in accordance with Methods 325A and 325B in appendix A to this part and paragraphs (a)(1) through (a)(2) of this section. The monitoring perimeter may be located within the facility, inside the facility property boundary. However, the monitoring perimeter must encompass all potential sources of benzene that are located within the facility's property boundary.

(1) The target analyte is benzene. The owner or operator must follow the procedure in section 9.6 of Method 325B in appendix A to this part to determine the detection limit of benzene for each sampler used to collect samples and blanks.

(2) The owner or operator must use a sampling period and sampling frequency as specified in paragraphs (a)(2)(i) through (a)(2)(iii) of this section.

(i) A 14-day sampling period must be used unless a shorter sampling period is determined to be necessary under paragraph (e) or (g) of this section. A sampling period is defined as the period during which a sampling tube is deployed at a specific sampling location with the diffusive sampling end cap in-place and does not include the time required to analyze the sample. For the purpose of this subpart, a 14-day sampling period may be no shorter than 13 calendar days and no longer than 15 calendar days, but the routine sampling period must be 14 calendar days.

(ii) Except as provided in paragraph (a)(2)(iii) of this section, the frequency of sample collection must be once each contiguous 14-day sampling period, such that the beginning of the next 14-day sampling period begins immediately upon the completion of the previous 14-day sampling period.

(iii) When an individual monitor consistently achieves results for benzene at or below the level specified in paragraph (a)(3) of this section, the owner or operator may elect to use the applicable minimum sampling frequency specified in paragraphs (a)(2)(iii)(A) through (E) of this section for that monitoring site. When calculating Δc for the monitoring period when using this alternative for burden reduction, use zero for the lowest sampling result for each monitoring period where one or more samples was not taken and/or analyzed for benzene.

(A) If every sample at a monitoring site is at or below the level specified in paragraph (a)(3) of this section for 2 years (52 consecutive samples), every other sampling period can be skipped for that monitoring site, *i.e.,* sampling will occur approximately once per month.

(B) If every sample at a monitoring site that is monitored at the frequency specified in paragraph (a)(2)(iii)(A) of this section is at or below the level specified in paragraph (a)(3) of this section for 2 years (*i.e.,* 26 consecutive ''monthly'' samples), five 14-day sampling periods can be skipped for that monitoring site following each period of sampling, *i.e.,* sampling will occur approximately once per quarter.

(C) If every sample at a monitoring site that is monitored at the frequency specified in paragraph (a)(2)(iii)(B) of this section is at or below the level specified in paragraph (a)(3) of this section for 2 years (*i.e.,* 8 consecutive quarterly samples), twelve 14-day sampling periods can be skipped for that monitoring site following each period of sampling, *i.e.,* sampling will occur twice a year.

(D) If every sample at a monitoring site that is monitored at the frequency specified in paragraph (a)(2)(iii)(C) of this section is at or below the level specified in paragraph (a)(3) of this section for 2 years (*i.e.,* 4 consecutive semiannual samples), only one sample per year is required for that monitoring site. For yearly sampling, samples shall occur at least 10 months but no more than 14 months apart.

(E) If at any time a sample for a monitoring site that is monitored at the frequency specified in paragraph (a)(2)(iii)(A) through (D) of this section returns a result that is above the level specified in paragraph (a)(3) of this section, the sampling site must return to the original sampling requirements of contiguous 14-day sampling periods with no skip periods for one quarter (six 14-day sampling periods). If every sample collected during this quarter is at or below the level specified in paragraph (a)(3) of this section, the owner or operator may revert back to the reduced monitoring schedule applicable for that monitoring site prior to the sample reading exceeding the level specified in paragraph (a)(3) of this section. If any sample collected during this quarter is above the level specified in paragraph (a)(3) of this section, that monitoring site must return to the original sampling requirements of contiguous 14-day sampling periods with no skip periods for a minimum of two years. The burden reduction requirements can be used again for that monitoring site once the requirements of paragraph (a)(2)(iii)(A) of this section are met again, *i.e.,* after 52 contiguous 14-day samples with no results above the level specified in paragraph (a)(3) of this section.

(3) To use the alternative sampling frequency outlined in paragraph (a)(2) of this section, an individual monitor must consistently achieve results for benzene at or below 0.7 $\mu g/m^3$.

(b) The owner or operator shall collect and record meteorological data according to the applicable requirements in paragraphs (b)(1) through (3) of this section.

(1) If a near-field source correction is used as provided in paragraph (f)(2) of this section and/or if an alternative test method is used that provides time-resolved measurements, the owner or operator must use an on-site meteorological station in accordance with section 8.3 of Method 325A in appendix A to this part. Collect and record hourly average meteorological data, including temperature, barometric pressure, wind speed and wind direction, and calculate daily unit vector wind direction and daily sigma theta.

(2) For cases other than those specified in paragraph (b)(1) of this section, the owner or operator shall collect and record sampling period average temperature and barometric pressure using either an on-site meteorological station in accordance with section 8.3 of Method 325A in appendix A to this part or, alternatively, using data from a National Weather Service (NWS) meteorological station provided the NWS meteorological station is within 40 kilometers (25 miles) of the coke manufacturing facility.

(3) If an on-site meteorological station is used, the owner or operator shall follow the calibration and standardization procedures for meteorological measurements in EPA–454/B–08–002 (incorporated by reference, see § 63.14).

(c) Within 45 days of completion of each sampling period, the owner or operator shall determine whether the results are above or below the action level as follows.

(1) The owner or operator must determine the facility impact on the benzene concentration (Δc) for each sampling period according to either paragraph (c)(1)(i) or (ii) of this section, as applicable.

(i) Except when near-field source correction is used as provided in paragraph (c)(1)(ii) of this section, the owner or operator shall determine the highest and lowest sample results for benzene concentrations from the sample pool and calculate Δc as the difference in these concentrations. Co-located samples must be averaged together for the purposes of determining the benzene concentration for that sampling location, and, if applicable, for determining Δc. The owner or operator shall adhere to the following procedures when one or more samples for the sampling period are below the method detection limit for benzene:

(A) If the lowest detected value of benzene is below detection, the owner or operator shall use zero as the lowest sample result when calculating Δc.

(B) If all sample results are below the method detection limit, the owner or operator shall use the method detection limit as the highest sample result and zero as the lowest sample result when calculating Δc.

(C) In the case of co-located samples, if one sample is above the method detection limit while the other sample is below the method detection limit, the owner or operator must use the method detection limit as the result for the sample that is below the method detection limit for purposes of averaging the results to determine the concentration at a particular sampling location, and, if applicable, for determining Δc.

(ii) When near-field source correction is used as provided in paragraph (f)(2) of this section, the owner or operator must determine Δc using the calculation protocols outlined in paragraph (c)(1)(i) of this section except as provided in this paragraph (c)(1)(ii), and the additional requirements in paragraph (f)(2) of this section, as well as any additional requirements outlined in the approved site-specific monitoring plan. The Δc for the sampling period is equal to the higher of the values in paragraphs (c)(1)(ii)(A) and (B) of this section.

(A) The highest corrected sample result from a sampling location where near-field source correction is used during the sampling period.

(B) The difference in concentration between the highest sample result that was not corrected for a near-field source during the sampling period and the lowest sample result for the sampling period.

(2) The owner or operator must calculate the annual average Δc based on the average of the 26 most recent 14-day sampling periods. The owner or operator must update this annual average value after receiving the results of each subsequent 14-day sampling period.

(3) The action level for benzene is 7 $\mu g/m^3$ on an annual average basis. If the annual average Δc value for benzene is greater than 7 $\mu g/m^3$, the concentration is above the action level, and the owner or operator must conduct a root cause analysis and corrective action in accordance with paragraph (d) of this section.

(d) Once the action level in paragraph (c)(3) of this section has been exceeded, the owner or operator must take the following actions to bring the annual average Δc back below the action level.

(1) Within 5 days of updating the annual average value as required in paragraph (c)(2) of this section and determining that the action level in paragraph (c)(3) of this section has been exceeded (*i.e.,* in no case longer than 50 days after completion of the sampling period), the owner or operator must initiate a root cause analysis to determine appropriate corrective action. A root cause analysis is an assessment conducted through a process of investigation to determine the primary underlying cause and all other contributing causes to an exceedance of the action level set forth in paragraph (c)(3) of this section.

(i) Root cause analysis may include, but is not limited to:

(A) Leak inspection using Method 21 in appendix A–7 to 40 CFR part 60, optical gas imaging, or handheld monitors.

(B) Visual inspection to determine the cause of the high benzene emissions.

(C) Employing progressively more frequent sampling, analysis and meteorology (*e.g.,* using shorter sampling periods for Methods 325A and 325B in appendix A to this part, or using active sampling techniques, like those utilized as part of a site-specific monitoring plan).

(D) Operator knowledge of process changes (*e.g.,* a malfunction or release event).

(ii) If the root cause cannot be identified using the type of techniques described in paragraph (d)(1)(i) of this section, the owner or operator must employ more frequent sampling and analysis to determine the root cause of the exceedance.

(A) The owner or operator may first employ additional monitoring points and shorter sampling periods for Methods 325A and 325B in appendix A to this part for benzene to determine the root cause of the exceedance.

(B) If the owner or operator has not determined the root cause of the exceedance within 30 days of determining that the action level has been exceeded, the owner or operator must employ the appropriate real-time sampling techniques (*e.g.,* mobile gas chromatographs, optical spectroscopy instruments, sensors) to locate the cause of the exceedance. If the root cause is not identified after 48 hours, either the real-time monitor must be relocated or an additional real-time monitor must be added. Relocation or addition of extra real-time monitors must continue after each 48-hour period of nonidentification until the owner or operator can identify the root cause of the exceedance.

(2) If either the underlying primary or other contributing causes of the exceedance are deemed to be under the control of the owner or operator and subject to a regulation codified in 40 CFR part 63, except as provided in paragraph (c)(3) of this section, the owner or operator must take appropriate corrective action as expeditiously as possible to bring annual average fenceline concentrations back below the action level set forth in paragraph (c)(3) of this section and to prevent future exceedances from the same underlying cause(s).

(3) If the underlying primary or other contributing cause of the exceedance is under the control of the owner or operator but not subject to a regulation codified in 40 CFR part 63, as evidenced through the root cause analysis in paragraph (d)(1) of this section and supported by appropriate real-time sampling techniques consistent with paragraph (d)(1)(ii)(B) of this section, the owner or operator is not required to take corrective action under this subpart at any portion of the facility not subject to a regulation codified in 40 CFR part 63. However, the owner or operator must add additional monitoring locations in accordance with section 8.2.1.3 of EPA Method 325A in appendix A to this part or update their site-specific monitoring plan to add additional real-time monitors to account and correct for this near-field source of emissions not subject to a regulation codified in 40 CFR part 63 within 60 days of determining the underlying cause.

(4) The root cause analysis must be completed and initial corrective actions, if applicable, taken no later than 45 days after determining there is an exceedance of an action level.

(5) Except as noted in paragraph (d)(6) of this section, until the annual average Δc is below the action level again, following the completion of the initial corrective action, the owner or operator must conduct a new root cause analysis according to this paragraph (d), and if required, submit a corrective action plan under paragraph (e) of this section following any sampling period for which the Δc for the sampling period is greater than the action level in paragraph (c)(3) of this section.

(6) This paragraph applies when an owner or operator is required under paragraph (d)(3) of this section to update the site-specific monitoring plan to account for an additional near-field emission source. Until the annual average Δc is below the action level again, following implementation of the approved revision to the site-specific monitoring plan, the owner or operator must conduct a new root cause analysis according to this paragraph (d), and if required, submit a corrective action plan under paragraph (e) of this section following any sampling period for which the Δc for the sampling period is greater than the action level in paragraph (c)(3) of this section.

(e) An owner or operator must develop a corrective action plan if any of the conditions in paragraphs (e)(1) through (e)(3) of this section are met. The corrective action plan must describe the corrective action(s) completed to date, additional measures that the owner or operator proposes to employ to reduce annual average fenceline concentrations below the action level set forth in paragraph (c)(3) of this section, and a schedule for completion of these measures. The corrective action plan does not need to be approved by the Administrator. However, if upon review, the Administrator disagrees with the additional measures outlined in the plan, the owner or operator must revise and resubmit the plan within 7 calendar days of receiving comments from the Administrator.

(1) Except as noted in paragraph (e)(3) of this section, if upon completion of the root cause analysis and initial corrective actions required under paragraph (d) of the section, the Δc value for the next sampling period, for which the sampling start time begins after the completion of the initial corrective actions, is greater than the level specified in paragraph (c)(3) of this section. The corrective action plan must include the implementation of real-time sampling techniques to locate the primary and other contributing causes of the exceedance. The owner or operator must submit the corrective action plan to the Administrator within 60 days after receiving the analytical results indicating that the Δc value for the sampling period following the completion of the initial corrective action is greater than the level specified in paragraph (c)(3) of this section.

(2) The owner or operator must develop a corrective action plan if complete implementation of all corrective measures identified in the root cause analysis required by paragraph (e) of this section will require more than 45 days. The owner or operator must submit the corrective action plan to the Administrator no later than 60 days following the completion of the root cause analysis required in paragraph (d) of this section.

(3) The owner or operator must develop a corrective action plan if upon completion of the root cause analysis and following implementation of the approved revision to the site-specific monitoring plan required under paragraph (d)(3) of this section, the Δc value for the next sampling period, for which the sampling start time begins after implementation of the approved revision to the site-specific monitoring plan, is greater than the level specified in paragraph (c)(3) of this section. The corrective action plan must include the implementation of real-time sampling techniques to locate the primary and other contributing causes of the exceedance. The owner or operator must submit the corrective action plan to the Administrator within 60 days after receiving the analytical results indicating that the Δc value for the sampling period following the implementation of the approved revision to the site-specific monitoring plan is greater than the level specified in paragraph (c)(3) of this section.

(f) An owner or operator may request approval from the Administrator for a site-specific monitoring plan to account for offsite upwind sources or onsite sources not subject to a regulation codified in 40 CFR part 63 according to the requirements in paragraphs (f)(1) through (4) of this section.

(1) The owner or operator must prepare and submit a site-specific monitoring plan and receive approval of the site-specific monitoring plan prior to using the near-field source alternative calculation for determining Δc provided in paragraph (f)(2) of this section. The site-specific monitoring plan shall include, at a minimum, the elements specified in paragraphs (f)(1)(i) through (v) of this section. The procedures in section 12 of Method 325A in appendix A to this part are not required, but may be used, if applicable, when determining near-field source contributions.

(i) Identification of the near-field source or sources. For onsite sources, specify that the onsite source is not subject to a regulation codified in 40 CFR part 63 and identify any federal regulation or federally enforceable permit condition the source is subject to.

(ii) Identification of the fenceline monitoring locations impacted by the near-field source. If more than one near-field source is present, identify the near-field source or sources that are expected to contribute to the concentration at each monitoring location.

(iii) A description of (including sample calculations illustrating) the planned data reduction; treatment of invalid data and data below detection limits; and calculations to determine the near-field source concentration contribution for each monitoring location.

(iv) A detailed description of the measurement technique, measurement location(s), the standard operating procedures, measurement frequency, recording frequency, measurement detection limit, and data quality indicators to ensure accuracy, precision, and validity of the data. If you are accounting for on-site sources, you must use a real-time sampling technique (*e.g.,* mobile gas chromatographs, optical spectroscopy instruments, sensors).

(v) A detailed description of how data will be handled during periods of calm wind conditions (*i.e.,* less than 2 miles per hour).

(2) When an approved site-specific monitoring plan is used, the owner or operator shall determine Δc for comparison with action level according to paragraph (c) of this section. When determining the sample results for use in the Δc calculation, the concentration for any monitor that has been corrected using an approved site-specific monitoring plan will be corrected according to the procedures specified in paragraphs (f)(2)(i) and (ii) of this section.

(i) For each monitoring location corrected using the site-specific monitoring plan, the corrected fenceline concentration at that monitoring station will be equal to the fenceline concentration measured with Methods 325A and 325B in appendix A to this part minus the near-field source contributing concentration at the measurement location determined using the additional measurements and calculation procedures included in the approved site-specific monitoring plan.

(ii) If the fenceline concentration at the monitoring station is below the method detection limit for Methods 325A and 325B in appendix A to this part, no near-field source contribution can be subtracted from that monitoring station for that sampling period.

(3) The site-specific monitoring plan shall be submitted and approved as described in paragraphs (f)(3)(i) through (iv) of this section.

(i) The site-specific monitoring plan must be submitted to the Administrator for approval.

(ii) The site-specific monitoring plan shall also be submitted to the following address: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Sector Policies and Programs Division, U.S. EPA Mailroom (D243–02), Attention: Metals and Inorganic Chemicals Group, 109 T.W. Alexander Drive, Research Triangle Park, NC 27711. Electronic copies in lieu of hard copies also may be submitted to *fencelineplan@epa.gov.*

(iii) The Administrator shall approve or disapprove the plan in 120 days. The plan shall be considered approved if the Administrator either approves the plan in writing or fails to disapprove the plan in writing. The 120-day period shall begin when the Administrator confirms receipt of a complete site-specific monitoring plan.

(iv) If the Administrator finds any deficiencies in the site-specific monitoring plan and disapproves the plan in writing, the owner or operator may revise and resubmit the site-specific monitoring plan following the requirements in paragraphs (f)(3)(i) and (ii) of this section. The 120-day period starts over with the resubmission of the revised monitoring plan. The Administrator may indicate in writing that a submitted plan is incomplete and specify the information necessary for completeness.

(4) The approval by the Administrator of a site-specific monitoring plan will be based on the completeness, accuracy and reasonableness of the request for a site-specific monitoring plan. Factors that the Administrator will consider in reviewing the request for a site-specific monitoring plan include, but are not limited to, those described in paragraphs (f)(4)(i) through (v) of this section.

(i) The identification of the near-field source or sources and evidence of how the sources impact the fenceline concentration.

(ii) The location(s) selected for additional monitoring to determine the near-field source concentration contribution.

(iii) The identification of the fenceline monitoring locations impacted by the near-field source or sources.

(iv) The appropriateness of the planned data reduction and calculations to determine the near-field source concentration contribution for each monitoring location, including the handling of invalid data, data below the detection limit, and data during calm periods.

(v) The adequacy of the description of and the rationale for the measurement technique, measurement location(s), the standard operating procedure, the measurement and recording frequency, measurement detection limit, and data quality indicators proposed to ensure accuracy, precision, and validity of the data.

(g) The owner or operator shall comply with the applicable recordkeeping and reporting requirements in § 63.311.

(h) As outlined in § 63.7(f), the owner or operator may submit a request for an alternative test method. At a minimum, the request must follow the requirements outlined in paragraphs (h)(1) through (7) of this section.

(1) The alternative method may be used in lieu of all samplers or a partial number of the passive samplers required in Method 325A in appendix A to this part.

(2) The alternative method must be validated according to Method 301 in appendix A of this part or contain performance-based procedures and indicators to ensure self-validation.

(3) The method detection limit must nominally be at least one-third of the action level. The alternate test method must describe the procedures used to provide field verification of the detection limit in the sample matrix being measured.

(4) If the alternative test method will be used to replace some or all passive samplers required under paragraph (a) of this section, the spatial coverage must be equal to or better than the spatial coverage provided in Method 325A in appendix A to this part.

(i) For path average concentration open-path instruments, the physical path length of the measurement shall be no more than a passive sample footprint (the spacing that would be provided by the sorbent traps when following Method 325A). For example, if Method 325A requires spacing monitors A and B 610 meters (2000 feet) apart, then the physical path length limit for the measurement at that portion of the fenceline shall be no more than 610 meters (2000 feet).

(ii) For range resolved open-path instrument or approach, the instrument or approach must be able to resolve an average concentration over each passive sampler footprint within the path length of the instrument.

(iii) The extra samplers required in sections 8.2.1.3 of Method 325A may be omitted when they fall within the path length of an open-path instrument.

(5) At a minimum, non-integrating alternative test methods must provide a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(6) For alternative test methods capable of real time measurements (less than a 5-minute sampling and analysis cycle), the alternative test method may allow for elimination of data points corresponding to outside emission sources for purpose of calculation of the high point for the two-week average. The alternative test method approach must have wind speed, direction and stability class of the same time resolution and within the footprint of the instrument.

(7) For purposes of averaging data points to determine the Δc for the 14-day average high sample result, all results measured under the method detection limit must use the method detection limit. For purposes of averaging data points for the 14-day average low sample result, all results measured under the method detection limit must use zero.

Subpart CCCCC—National Emission Standards for Hazardous Air Pollutants for Coke Ovens: Pushing, Quenching, and Battery Stacks

■ 15. Section 63.7280 is revised to read as follows:

§ 63.7280 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for pushing, soaking, quenching, battery stacks, heat and/or nonrecovery (HNR) heat recovery steam generator (HRSG) main stacks, and HNR HRSG bypass/waste heat stacks at facilities that produce coke in coke oven batteries and facilities that recover heat from coke oven gas. This subpart also establishes requirements to demonstrate initial and continuous compliance with all applicable emission limitations, work practice standards, and operation and maintenance requirements in this subpart.

■ 16. Section 63.7282 is revised to read as follows:

§ 63.7282 What parts of my plant does this subpart cover?

(a) This subpart applies to each new or existing affected source at your coke plant. The affected source is each coke oven battery and units that recover heat from coke oven gas from the coke batteries.

(b) This subpart covers emissions from pushing, soaking, quenching, by-product battery stacks, HNR HRSG main stacks, and HNR HRSG bypass/waste heat stacks from each affected source, as applicable to the coke oven facility.

(c) An affected source at your coke plant is existing if you commenced construction or reconstruction of the affected source before July 3, 2001.

(d) An affected source at your coke plant is new if you commenced construction or reconstruction of the affected source on or after July 3, 2001. An affected source is reconstructed if it meets the definition of ''reconstruction'' in § 63.2. This paragraph (d) does not apply to the emission limitations listed in §§ 63.7290(b) through (d), 63.7296(c) through (f), 63.7297(a) through (d), and 63.7298(a) through (e) for capture systems and control devices applied to pushing emissions, battery stacks, HNR HRSG main stacks, and HNR HRSG bypass/waste heat stacks, respectively.

(e) An affected source at your coke plant is existing for the emissions limitations listed in §§ 63.7290(b) through (d), 63.7296(c) through (f), 63.7297(a) through (d), and 63.7298(a) through (e) for capture systems and control devices applied to pushing emissions, battery stacks, HNR HRSG main stacks, and HNR HRSG bypass/waste heat stacks, respectively if you commenced construction or reconstruction of the affected source before August 16, 2023.

(f) An affected source at your coke plant is new for the emissions limitations listed in §§ 63.7290(b) through (d), 63.7296(c) through (f), 63.7297(a) through (d), and 63.7298(a) through (e) for capture systems and control devices applied to pushing emissions, battery stacks, HNR HRSG main stacks, and HNR HRSG bypass/waste heat stacks, respectively if you commenced construction or reconstruction of the affected source on or after August 16, 2023.

■ 17. Section 63.7283 is revised to read as follows:

§ 63.7283 When do I have to comply with this subpart?

(a) If you have an existing affected source, you must comply with each emission limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you no later than April 14, 2006. This paragraph does not apply to the emission limitations listed in §§ 63.7290(b) through (d), 63.7296(c) through (f), 63.7297(a) through (d), and 63.7298(a) through (e) for capture systems and control devices applied to pushing emissions, battery stacks, HNR HRSG main stacks, and HNR HRSG bypass/waste heat stacks, respectively.

(b) If you have a new affected source and its initial startup date is on or before April 14, 2003, you must comply with each emission limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you by April 14, 2003. This paragraph does not apply to the emission limitations listed in §§ 63.7290(b) through (d), 63.7296(c) through (f), 63.7297(a) through (d), and 63.7298(a) through (e) for capture systems and control devices applied to pushing emissions, battery stacks, HNR HRSG main stacks, and HNR HRSG bypass/waste heat stacks, respectively.

(c) If you have a new affected source and its initial startup date is after April 14, 2003, you must comply with each emission limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you upon initial startup. This paragraph does not apply to the emission limitations listed in §§ 63.7290(b) through (d), 63.7296(c) through (f), 63.7297(a) through (d), and 63.7298(a) through (e) for capture systems and control devices applied to pushing emissions, battery stacks, HNR HRSG main stacks, and HNR HRSG bypass/waste heat stacks, respectively.

(d) With regard to the §§ 63.7290(b) through (d), 63.7296(c) through (f), 63.7297(a) through (d), and 63.7298(a) through (e) emission limitations for capture systems and control devices applied to pushing emissions, battery stacks, HNR HRSG main stacks, and HNR HRSG bypass/waste heat stacks, respectively:

(1) If you have an existing affected source or a new or reconstructed affected source for which construction or reconstruction commenced on or before August 16, 2023, you must be in

compliance no later than January 5, 2026.

(2) If you have a new or reconstructed affected source for which construction or reconstruction commenced after August 16, 2023, you must be in compliance no later than January 5, 2026 or upon startup, whichever is later.

(e) With regard to the § 63.7299 opacity limitations for HNR HRSG bypass/waste heat stacks:

(1) If you have an existing affected source or a new or reconstructed affected source for which construction or reconstruction commenced on or before August 16, 2023, you must be in compliance no later than July 7, 2025.

(2) If you have a new or reconstructed affected source for which construction or reconstruction commenced after August 16, 2023, you must be in compliance no later than July 7, 2025, or upon initial startup, whichever is later.

(f) You must meet the notification and schedule requirements in § 63.7340. Several of these notifications must be submitted before the compliance date for your affected source.

■ 18. Section 63.7290 is revised to read as follows:

§ 63.7290 What emission limitations must I meet for capture systems and control devices applied to pushing emissions?

(a) You must not discharge to the atmosphere emissions of particulate matter from a control device applied to pushing emissions from a new or existing coke oven battery that exceed the applicable limit in paragraphs (a)(1) through (4) of this section:

(1) 0.01 grain per dry standard cubic foot (gr/dscf) if a cokeside shed is used to capture emissions;

(2) 0.02 pound per ton (lb/ton) of coke if a moveable hood vented to a stationary control device is used to capture emissions;

(3) If a mobile scrubber car that does not capture emissions during travel is used:

(i) 0.03 lb/ton of coke for a control device applied to pushing emissions from a short battery, or

(ii) 0.01 lb/ton of coke for a control device applied to pushing emissions from a tall battery; and

(4) 0.04 lb/ton of coke if a mobile control device that captures emissions during travel is used.

(b) You must not discharge to the atmosphere emissions of mercury from a control device applied to pushing emissions from a new coke oven battery that exceeds 5.1E–07 lb/ton coke or existing coke oven battery that exceeds 8.9E–07 lb/ton coke.

(c) You must not discharge to the atmosphere emissions of total acid gases from a control device applied to pushing emissions from a new coke oven battery that exceeds 5.3E–04 lb/ton coke or existing coke oven battery that exceeds 0.013 lb/ton coke.

(d) You must not discharge to the atmosphere emissions of hydrogen cyanide from a control device applied to pushing emissions from a new coke oven battery that exceeds 3.8E–05 lb/ton coke or existing coke oven battery that exceeds 0.0015 lb/ton coke.

(e) You must not discharge to the atmosphere emissions of total polycyclic aromatic hydrocarbons (PAH) from a control device applied to pushing emissions from a new coke oven battery that exceeds 1.4E–05 lb/ton coke or existing coke oven battery that exceeds 4.0E–04 lb/ton coke.

(f) You must meet each operating limit in paragraphs (f)(1) through (4) of this section that applies to you for a new or existing coke oven battery.

(1) For each venturi scrubber applied to pushing emissions, you must maintain the daily average pressure drop and scrubber water flow rate at or above the minimum levels established during the initial performance test.

(2) For each hot water scrubber applied to pushing emissions, you must maintain the daily average water pressure and water temperature at or above the minimum levels established during the initial performance test.

(3) For each capture system applied to pushing emissions, you must maintain the daily average volumetric flow rate at the inlet of the control device at or above the minimum level established during the initial performance test; or

(i) For each capture system that uses an electric motor to drive the fan, you must maintain the daily average fan motor amperes at or above the minimum level established during the initial performance test; and

(ii) For each capture system that does not use a fan driven by an electric motor, you must maintain the daily average static pressure at the inlet to the control device at an equal or greater vacuum than the level established during the initial performance test or maintain the daily average fan revolutions per minute (RPM) at or above the minimum level established during the initial performance test.

(4) For each multicyclone, you must maintain the daily average pressure drop at or below the minimum level established during the initial performance test.

■ 19. Section 63.7293 is revised to read as follows:

§ 63.7293 What work practice standards must I meet for fugitive pushing emissions if I have a nonrecovery coke oven battery?

(a) You must meet the requirements in paragraphs (a)(1) and (2) of this section for each new and existing nonrecovery coke oven battery.

(1) You must visually inspect each oven prior to pushing by opening the door damper and observing the bed of coke.

(2) Do not push the oven unless the visual inspection indicates that there is no smoke in the open space above the coke bed and that there is an unobstructed view of the door on the opposite side of the oven.

(b) As provided in § 63.6(g), you may request to use an alternative to the work practice standard in paragraph (a) of this section.

■ 20. Section 63.7296 is revised to read as follows:

§ 63.7296 What emission limitations must I meet for battery stacks?

You must not discharge to the atmosphere any emissions from any battery stack at a new or existing by-product coke oven battery that exhibit an opacity greater than the applicable limits in paragraphs (a) and (b) of this section and emissions greater than the applicable limits in paragraphs (c) through (f) of this section.

(a) Daily average of 15 percent opacity for a battery on a normal coking cycle.

(b) Daily average of 20 percent opacity for a battery on batterywide extended coking.

(c) Emissions of particulate matter from a new by-product coke oven battery stack that exceeds 0.013 gr/dscf at 10 percent oxygen or existing by-product coke oven battery stack that exceeds 0.13 gr/dscf at 10 percent oxygen.

(d) Emissions of mercury from a new by-product coke oven battery stack that exceeds 7.1E–06 lb/ton coke or existing by-product coke oven battery stack that exceeds 4.5E–05 lb/ton coke.

(e) Emissions of total acid gases from a new by-product coke oven battery stack that exceeds 0.013 lb/ton coke or existing by-product coke oven battery stack that exceeds 0.16 lb/ton coke.

(f) Emissions of hydrogen cyanide from a new by-product coke oven battery stack that exceeds 7.4E–04 lb/ton coke or existing by-product coke oven battery stack that exceeds 0.032 lb/ton coke.

■ 21. Sections 63.7297 through 63.7299 are added to read as follows:

Sec.

63.7297 What emission limitations must I meet for HNR HRSG main stacks?

§ 63.7297 What emission limitations must I meet for HNR HRSG main stacks?

You must not discharge to the atmosphere any emissions from any HNR HRSG main stack at a new or existing HNR coke oven battery that exhibit emissions greater than the applicable limits in paragraphs (a) through (d) of this section.

(a) Emissions of particulate matter from any HNR HRSG main stack at a new HNR coke oven battery that exceeds 8.8E–04 gr/dscf at 10 percent oxygen or any HNR HRSG main stack at an existing HNR coke oven battery that exceeds 0.0049 gr/dscf at 10 percent oxygen.

(b) Emissions of mercury from any HNR HRSG main stack at a new HNR coke oven battery that exceeds 1.5E–06 gr/dscf at 10 percent oxygen or any HNR HRSG main stack at an existing HNR coke oven battery that exceeds 3.0E–06 gr/dscf at 10 percent oxygen.

(c) Emissions of total acid gases from any HNR HRSG main stack at a new HNR coke oven battery that exceeds 0.0034 gr/dscf at 10 percent oxygen or any HNR HRSG main stack at an existing HNR coke oven battery that exceeds 0.049 gr/dscf at 10 percent oxygen.

(d) Emissions of total PAHs from any HNR HRSG main stack at a new HNR coke oven battery that exceeds 4.7E–07 gr/dscf at 10 percent oxygen or any HRSG main stack at existing HNR coke oven battery that exceeds 4.8E–07 gr/dscf at 10 percent oxygen.

§ 63.7298 What emission limitations must I meet for HNR HRSG bypass/waste heat stacks?

You must not discharge to the atmosphere any emissions from any HNR HRSG bypass/waste heat stack at a new or existing HNR coke oven battery that exhibit emissions greater than the applicable limits in paragraphs (a) through (e) of this section.

(a) Emissions of particulate matter from any HNR HRSG bypass/waste heat stack at a new HNR coke oven battery that exceeds 0.022 gr/dscf at 10 percent oxygen or any HNR HRSG bypass/waste heat stack at an existing HNR coke battery that exceeds 0.032 gr/dscf at 10 percent oxygen.

(b) Emissions of mercury from any HNR HRSG bypass/waste heat stack at a new HNR coke oven battery that exceeds 8.6E–06 gr/dscf at 10 percent oxygen or any HNR HRSG bypass/waste heat stack at an existing HNR coke oven battery that exceeds 1.2E–05 gr/dscf at 10 percent oxygen.

(c) Emissions of total acid gases from any HNR HRSG bypass/waste heat stack at a new HNR coke oven battery that exceeds 0.12 gr/dscf at 10 percent oxygen or any HNR HRSG bypass/waste heat stack at an existing HNR coke battery that exceeds 0.095 gr/dscf at 10 percent oxygen.

(d) Emissions of total PAHs from any HNR HRSG bypass/waste heat stack at a new or existing HNR coke oven battery that exceeds 2.7E–06 gr/dscf at 10 percent oxygen.

(e) Emissions of formaldehyde from any HNR HRSG bypass/waste heat stack at a new HNR coke oven battery that exceeds 1.8E–05 gr/dscf at 10 percent oxygen or any HNR HRSG bypass/waste heat stack at an existing HNR coke oven battery that exceeds 0.0012 gr/dscf at 10 percent oxygen.

§ 63.7299 What opacity limitations must I meet for HNR HRSG bypass/waste heat stacks?

The owner or operator shall observe the exhaust stack of each bypass or waste heat stacks once each week that exhaust is emitted through each stack continuously for more than an hour. The observation shall be made when exhaust is being emitted through the bypass or waste heat stack to determine if opacity, as a 6-minute average measured according to EPA Method 9 in appendix A–4 to 40 CFR part 60, exceeds 20 percent opacity. The owner or operator shall record the results of each observation. If a bypass event does not occur during a week or does not exceed one hour in duration, then no measurement is required for that week. If exhaust is emitted through any bypass or waste heat stack continuously for more than an hour during a week and no opacity measurement has been performed, the owner or operator shall record in the operating record the reason why conditions did not permit an opacity observation. If opacity greater than 20 percent opacity is observed during any weekly measurement, the owner or operator must:

(a) Take corrective action to reduce the emissions contributing to the opacity;

(b) Record the cause of opacity exceeding 20 percent and the corrective action taken; and

(c) Report opacity exceedances in any HNR HRSG bypass or HNR waste heat stacks in the quarterly semiannual compliance report required by § 63.7341.

■ 22. Section 63.7300 is amended by revising paragraph (a) and (c) to read as follows:

§ 63.7300 What are my operation and maintenance requirements?

(a) As required by § 63.7310(a) you must always operate and maintain your affected source, including air pollution control and monitoring equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by this subpart.

* * * * *

(c) You must prepare and operate at all times according to a written operation and maintenance plan for each capture system and control device applied to pushing emissions from a new or existing coke oven battery. Each plan must address at a minimum the elements in paragraphs (c)(1) through (4) of this section.

(1) Monthly inspections of the equipment that are important to the performance of the total capture system (*e.g.,* pressure sensors, dampers, and damper switches). This inspection must include observations of the physical appearance of the equipment (*e.g.,* presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). In the event a defect or deficiency is found in the capture system (during a monthly inspection or between inspections), you must complete repairs within 30 days after the date that the defect or deficiency is discovered. If you determine that the repairs cannot be completed within 30 days, you must submit a written request for an extension of time to complete the repairs that must be received by the permitting authority not more than 20 days after the date that the defect or deficiency is discovered. The request must contain a description of the defect or deficiency, the steps needed and taken to correct the problem, the interim steps being taken to mitigate the emissions impact of the defect or deficiency, and a proposed schedule for completing the repairs. The request shall be deemed approved unless and until such time as the permitting authority notifies you that it objects to the request. The permitting authority may consider all relevant factors in deciding whether to approve or deny the request (including feasibility and safety). Each approved schedule must provide for completion of repairs as expeditiously as practicable, and the permitting authority may request modifications to the proposed schedule as part of the approval process.

(2) Preventative maintenance for each control device, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

(3) Corrective action for all baghouses applied to pushing emissions. In the event a bag leak detection system alarm is triggered, you must initiate corrective action to determine the cause of the alarm within 1 hour of the alarm, initiate corrective action to correct the cause of the problem within 24 hours of the alarm, and complete the corrective action as soon as practicable. Actions may include, but are not limited to:

(i) Inspecting the baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in emissions.

(ii) Sealing off defective bags or filter media.

(iii) Replacing defective bags or filter media or otherwise repairing the control device.

(iv) Sealing off a defective baghouse compartment.

(v) Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system.

(vi) Shutting down the process producing the particulate emissions.

(4) Beginning January 5, 2026, you must identify and implement a set of site-specific good combustion practices for each battery. These good combustion practices should correspond to your standard operating procedures for maintaining the proper and efficient combustion within battery waste heat flues. Good combustion practices include, but are not limited to, the elements listed in paragraphs (c)(4)(i) through (v) of this section.

(i) Proper operating conditions for each battery (*e.g.,* minimum combustion temperature, burner alignment, or proper fuel-air distribution/mixing).

(ii) Routine inspection and preventative maintenance and corresponding schedules of each battery.

(iii) Performance analyses of each battery.

(iv) Maintaining applicable operator logs.

(v) Maintaining applicable records to document compliance with each element.

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■ 23. Section 63.7310 is revised to read as follows:

§ 63.7310 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitations, work practice standards, and operation and maintenance requirements in this subpart at all times. At all times, you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

(b) During the period between the compliance date specified for your affected source in § 63.7283 and the date upon which continuous monitoring systems have been installed and certified and any applicable operating limits have been set, you must maintain a log detailing the operation and maintenance of the process and emissions control equipment.

■ 24. Section 63.7320 is amended by revising paragraph (a) to read as follows:

§ 63.7320 By what date must I conduct performance tests or other initial compliance demonstrations?

(a) As required in § 63.7(a)(2), you must conduct a performance test to demonstrate compliance with each limit in:

(1) Section 63.7290(a) through (e) for emissions of particulate matter, mercury, total acid gases, HCN, and total PAH from a control device applied to pushing emissions that applies to you within 180 calendar days after the compliance date that is specified in § 63.7283.

(2) Section 63.7296(c) through (f) for emissions of particulate matter, mercury, total acid gases, and HCN from a battery stack that applies to you within 180 calendar days after the compliance date that is specified in § 63.7283.

(3) Section 63.7297(a) through (d) for emissions of mercury, particulate matter, total acid gases, and total PAH from a HNR HRSG main stack that applies to you within 180 calendar days after the compliance date that is specified in § 63.7283.

(4) Section 63.7298(a) through (e) for emissions of mercury, particulate matter, total acid gases, total PAH, and formaldehyde from a HNR HRSG bypass/waste heat stack that applies to you within 180 calendar days after the compliance date that is specified in § 63.7283.

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■ 25. Section 63.7321 is revised to read as follows:

§ 63.7321 When must I conduct subsequent performance tests?

(a) For each control device subject to an emission limit for particulate matter in § 63.7290(a), you must conduct subsequent performance tests no less frequently than once every 5 years or at the beginning of each term of your title V operating permit, whichever is less.

(b) For each source subject to emission limits in §§ 63.7290(b) through (d), 63.7296(c) through (f), 63.7297(a) through (d), and 63.7298(a) through (e) for capture systems and control devices applied to pushing emissions, battery stacks, HNR HRSG main stacks, and HNR HRSG bypass/waste heat stacks sources, respectively, you must conduct subsequent performance tests once every five years.

■ 26. Section 63.7322 is revised to read as follows:

§ 63.7322 What test methods and other procedures must I use to demonstrate initial compliance with the emission limits?

(a) You must conduct each performance test that applies to your affected source based on representative performance (*i.e.,* performance based on the entire range of normal operating conditions) of the affected source for the period being tested, according to the requirements in paragraph (b) through (g) of this section. Representative conditions exclude periods of startup and shutdown. You shall not conduct performance tests during periods of malfunction. You must record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent the entire range of normal operation, including operational conditions for maximum emission if such emissions are not expected during maximum production. You shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

(b) To determine compliance with the emission limit for particulate matter from a control device applied to pushing emissions where a cokeside shed is the capture system, battery stack, HNR HRSG main stack, and HNR HRSG bypass/waste heat stack, follow the test methods and procedures in paragraphs (b)(1) and (2) of this section.

To determine compliance with a process-weighted mass rate of particulate matter (lb/ton of coke) from a control device applied to pushing emissions where a cokeside shed is not used, follow the test methods and procedures in paragraphs (b)(1) through (4) of this section.

(1) Determine the concentration of particulate matter according to the following test methods in appendices A–1 through A–3 to 40 CFR part 60.

(i) Method 1 to select sampling port locations and the number of traverse points. Sampling sites must be located at the outlet of the control device and prior to any releases to the atmosphere.

(ii) Method 2, 2F, or 2G to determine the volumetric flow rate of the stack gas.

(iii) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas. You may also use as an alternative to Method 3B, the manual method (but not instrumental procedures) for measuring the oxygen, carbon dioxide, and carbon monoxide content of exhaust gas, ANSI/ASME PTC 19.10–1981 (incorporated by reference, see § 63.14).

(iv) Method 4 to determine the moisture content of the stack gas.

(v) Method 5 or 5D, as applicable, to determine the concentration of filterable particulate matter in the stack gas.

(2) Collect a minimum sample volume of 30 dry standard cubic feet of gas during each test run. Three valid test runs are needed to comprise a performance test. During each particulate matter test run to meet the emission limitations in § 63.7290, sample only during periods of actual pushing when the capture system fan and control device are engaged. For capture systems and control devices applied to pushing emissions each run must start at the beginning of a push and finish at the end of a push (*i.e.,* sample for an integral number of pushes).

(3) Determine the total combined weight in tons of coke pushed during the duration of each test run according to the procedures in your source test plan for calculating coke yield from the quantity of coal charged to an individual oven.

(4) Compute the process-weighted mass emissions ($E_{p, PM}$) for each test run using equation 1 to this paragraph (b)(4) as follows:

Equation 1 to Paragraph (b)(4)

$$E_{p,PM}=(C_{PM}\times Q\times \Theta)/(P\times K) \quad \text{(Eq. 1)}$$

Where:

$E_{p, PM}$ = Process weighted mass emissions of particulate matter, lb/ton;
C_{PM} = Concentration of particulate matter, gr/dscf;
Q = Volumetric flow rate of stack gas, dscf/hr;
Θ = Total sampling run time; the time during a run that a sample is withdrawn from the stack during pushing, hr;
P = Total amount of coke pushed during the test run, tons; and
K = Conversion factor, 7,000 gr/lb.

(c) To determine compliance with the emission limit for mercury from a control device applied to pushing emissions where a cokeside shed is the capture system, battery stack, HNR HRSG main stack, and HNR HRSG bypass/waste heat stack, follow the test methods and procedures in paragraphs (c)(1) and (2) of this section. To determine compliance with a process-weighted mass rate of mercury (lb/ton of coke) from a control device applied to pushing emissions and battery stack, follow the test methods and procedures in paragraphs (c)(1) through (4) of this section.

(1) Determine the concentration of mercury according to the following test methods.

(i) The methods specified in sections (b)(1)(i) through (iv) of this section.

(ii) Method 29 in appendix A–8 to 40 CFR part 60, to determine the concentration of mercury in the stack gas. The voluntary consensus standard ASTM D6784–16 (incorporated by reference, see § 63.14) is an acceptable alternative to EPA Method 29 (portion for mercury only) as a method for measuring mercury, note: applies to concentrations approximately 0.5—100 µg/Nm3.

(2) Collect a minimum sample volume of 70 dry standard cubic feet of gas during each mercury test run. Three valid test runs are needed to comprise a performance test. During each mercury test run to meet the emission limitations in § 63.7290, sample only during periods of actual pushing when the capture system fan and control device are engaged. For capture systems and control devices applied to pushing emissions each run must start at the beginning of a push and finish at the end of a push (*i.e.,* sample for an integral number of pushes).

(3) Determine the total combined weight in tons of coke pushed during the duration of each test run according to the procedures in your source test plan for calculating coke yield from the quantity of coal charged to an individual oven.

(4) Compute the process-weighted mass emissions ($E_{p,Hg}$) for each test run using equation 2 to this paragraph (c)(4) as follows:

Equation 2 to Paragraph (c)(4)

$$E_{p,Hg}=(C_{Hg}\times Q\times \Theta)/(P\times K) \quad \text{(Eq. 2)}$$

Where:

$E_{p,Hg}$ = Process weighted mass emissions of mercury, lb/ton;
C_{Hg} = Concentration of mercury, gr/dscf;
Q = Volumetric flow rate of stack gas, dscf/hr;
Θ = Total sampling run time; the time during a run that a sample is withdrawn from the stack, for capture systems and control devices applied to pushing emissions, total time during a run that a sample is withdrawn from the stack during pushing, hr;
P = Total amount of coke pushed during the test run, tons; and
K = Conversion factor, 7,000 gr/lb.

(d) To determine compliance with the emission limit for total acid gases from a HNR HRSG main stack and HNR HRSG bypass/waste heat stack, follow the test methods and procedures in paragraphs (d)(1) and (2) of this section. To determine compliance with a process-weighted mass rate of total acid gases (lb/ton of coke) from a control device applied to pushing emissions and battery stack, follow the test methods and procedures in paragraphs (d)(1) through (4) of this section.

(1) Determine the concentration of total acid gases according to the following test methods.

(i) The methods specified in sections (b)(1)(i) through (iv) of this section.

(ii) Methods 26 or 26A in appendix A–8 to 40 CFR part 60, or Method 320 in appendix A to this part, to determine the concentration of total acid gases in the stack gas. The voluntary consensus standard ASTM D6348–12 (Reapproved 2020) (incorporated by reference, see § 63.14) is an acceptable alternative to Method 320 at this time with caveats requiring inclusion of selected annexes to the standard as mandatory. When using ASTM D6348–12 (Reapproved 2020), the following conditions must be met:

(A) The test plan preparation and implementation in the Annexes to ASTM D6348–12 (Reapproved 2020), Annexes A1 through A8 are mandatory; and

(B) In ASTM D6348–12 (Reapproved2020) Annex A5 (Analyte Spiking Technique), the percent (%) R must be determined for each target analyte (Equation A5.5).

(C) In order for the test data to be acceptable for a compound, % R must be greater than or equal to 70% and less than or equal to 130%. If the % R value does not meet this criterion for a target compound, the test data is not acceptable for that compound and the test must be repeated for that analyte (*i.e.,* the sampling and/or analytical procedure should be adjusted before a retest). The % R value for each compound must be reported in the test report, and all field measurements must be corrected with the calculated % R value for that compound by using equation 3 to this paragraph (d)((1)(ii)(C):

Equation 3 to Paragraph (d)((1)(ii)(C)

Reported Results = ((Measured Concentration in Stack)/(% R)) × 100.

(2) Collect a minimum sample volume of 35 dry standard cubic feet of gas during each test run for Method 26 and 26A in appendix A–8 to 40 CFR part 60. For Method 320 in appendix A to this part and ASTM D6348–12 (Reapproved 2020) (incorporated by reference, see § 63.14), each test run must be a minimum of one hour in duration. Three valid test runs are needed to comprise a performance test. During each total acid gases test run to meet the emission limitations in § 63.7290, sample only during periods of pushing when the capture system fan and control device are engaged. For capture systems and control devices applied to pushing emissions each run must start at the beginning of a push and finish at the end of a push (*i.e.,* sample for an integral number of pushes).

(3) Determine the total combined weight in tons of coke pushed during the duration of each test run according to the procedures in your source test plan for calculating coke yield from the quantity of coal charged to an individual oven.

(4) Compute the process-weighted mass emissions ($E_{p,AG}$) for each test run using equation 4 to this paragraph (d)(4) as follows:

Equation 4 to Paragraph (d)(4)

$$E_{p,AG}=(C_{AG}\times Q\times \Theta)/(P\times K) \quad \text{(Eq. 4)}$$

Where:

$E_{p,AG}$ = Process weighted mass emissions of total acid gases, lb/ton;
C_{AG} = Concentration of total acid gases, gr/dscf;
Q = Volumetric flow rate of stack gas, dscf/hr;
Θ = Total sampling run time; the time during a run that a sample is withdrawn from the stack, for capture systems and control devices applied to pushing emissions, total time during a run that a sample is withdrawn from the stack during pushing, hr;
P = Total amount of coke pushed during the test run, tons; and
K = Conversion factor, 7,000 gr/lb.

(e) To determine compliance with a process-weighted mass rate of hydrogen cyanide (lb/ton of coke) from a control device applied to pushing emissions and battery stack, follow the test methods and procedures in paragraphs (e)(1) through (4) of this section.

(1) Determine the concentration of hydrogen cyanide according to the following test methods.

(i) The methods specified in sections (b)(1)(i) through (iv) of this section.

(ii) Method 320 in appendix A to this part, to determine the concentration of hydrogen cyanide in the stack gas. The voluntary consensus standard ASTM D6348–12 (Reapproved 2020) (incorporated by reference, see § 63.14) is an acceptable alternative to Method 320 at this time with caveats requiring inclusion of selected annexes to the standard as mandatory. When using ASTM D6348–12 (Reapproved 2020), the following conditions must be met:

(A) The test plan preparation and implementation in the Annexes to ASTM D6348–12 (Reapproved 2020), Annexes A1 through A8 are mandatory; and

(B) In ASTM D6348–12 (Reapproved 2020) Annex A5 (Analyte Spiking Technique), the percent (%) R must be determined for each target analyte (Equation A5.5).

(C) In order for the test data to be acceptable for a compound, % R must be greater than or equal to 70% and less than or equal to 130%. If the % R value does not meet this criterion for a target compound, the test data is not acceptable for that compound and the test must be repeated for that analyte (*i.e.,* the sampling and/or analytical procedure should be adjusted before a retest). The % R value for each compound must be reported in the test report, and all field measurements must be corrected with the calculated % R value for that compound by using equation 5 to this paragraph (e)(1)(ii)(C):

Equation 5 to Paragraph (e)(1)(ii)(C)

Reported Results = ((Measured Concentration in Stack)/(% R)) × 100.

(2) Collect a minimum of eight spectra for each of six runs (or hours) evenly spaced over the test period for Method 320 in appendix A to this part or alternatively ASTM D6348–12 (Reapproved 2020) (incorporated by reference, see § 63.14). Three valid test runs are needed to comprise a performance test. During each hydrogen cyanide test run to meet the emission limitations in § 63.7290, sample only during periods of actual pushing when the capture system fan and control device are engaged. For capture systems and control devices applied to pushing emissions each run must start at the beginning of a push and finish at the end of a push (*i.e.,* sample for an integral number of pushes).

(3) Determine the total combined weight in tons of coke pushed during the duration of each test run according to the procedures in your source test plan for calculating coke yield from the quantity of coal charged to an individual oven.

(4) Compute the process-weighted mass emissions ($E_{p,HCN}$) for each test run using equation 6 to this paragraph (e)(4) as follows:

Equation 6 to Paragraph (e)(4)

$$E_{p,HCN}=(C_{HCN}\times Q\times \Theta)/(P\times K) \quad \text{(Eq. 6)}$$

Where:

$E_{p,HCN}$ = Process weighted mass emissions of hydrogen cyanide, lb/ton;
C_{HCN} = Concentration of hydrogen cyanide, gr/dscf;
Q = Volumetric flow rate of stack gas, dscf/hr;
Θ = Total sampling run time; the time during a run that a sample is withdrawn from the stack, for capture systems and control devices applied to pushing emissions, total time during a run that a sample is withdrawn from the stack during pushing, hr;
P = Total amount of coke pushed during the test run, tons; and
K = Conversion factor, 7,000 gr/lb.

(f) To determine compliance with the emission limit for total PAH from a HNR HRSG main stack and HNR HRSG bypass/waste heat stack, follow the test methods and procedures in paragraphs (f)(1) and (2) of this section. To determine compliance with a process-weighted mass rate of total PAH (lb/ton of coke) from a control device applied to pushing emissions, follow the test methods and procedures in paragraphs (f)(1) through (4) of this section.

(1) Determine the concentration of total PAH, the sum of 17 PAH compounds listed at § 63.7290(e), according to the following test methods.

(i) The methods specified in sections (b)(1)(i) through (iv) of this section.

(ii) Method 23 in appendix A–7 to 40 CFR part 60, to determine the concentration of total PAH in the stack gas.

(2) Collect a minimum sample volume of 105 dry standard cubic feet of gas during each test run for total PAH. Three valid test runs are needed to comprise a performance test. During each total PAH test run to meet the emission limitations in § 63.7290, sample only during periods of actual pushing when the capture system fan and control device are engaged. For capture systems and control devices applied to pushing emissions each run must start at the beginning of a push

and finish at the end of a push (*i.e.,* sample for an integral number of pushes). When calculating total PAH, the estimated level of detection (EDL) shall be used for each PAH measured below the EDL.

(3) Determine the total combined weight in tons of coke pushed during the duration of each test run according to the procedures in your source test plan for calculating coke yield from the quantity of coal charged to an individual oven.

(4) Compute the process-weighted mass emissions ($E_{p,PAH}$) for each test run using equation 7 to this paragraph (f)(4) as follows:

Equation 7 to Paragraph (f)(4)

$$E_{p,PAH}=(\Sigma(C_{PAH}\times Q\times \Theta))/(P\times K) \quad \text{(Eq. 7)}$$

Where:

$E_{p,PAH}$ = Process weighted mass emissions of total PAH, lb/ton;
C_{PAH} = Concentration of each PAH, gr/dscf;
Q = Volumetric flow rate of stack gas, dscf/hr;
Θ = Total sample run time; the time during a run that a sample is withdrawn from the stack during pushing, hr;
P = Total amount of coke pushed during the test run, tons; and
K = Conversion factor, 7,000 gr/lb.

(g) To determine compliance with the emission limit for formaldehyde from a HNR HRSG bypass/waste heat stack, follow the test methods and procedures in paragraphs (h)(1) and (2) of this section.

(1) Determine the concentration of formaldehyde according to the following test methods.

(i) The methods specified in sections (b)(1)(i) through (iv) of this section.

(ii) Method 316 or Method 320 in appendix A to this part, to determine the concentration of formaldehyde in the stack gas. The voluntary consensus standard ASTM D6348–12 (Reapproved 2020) (incorporated by reference, see § 63.14) is an acceptable alternative to Method 320 at this time with caveats requiring inclusion of selected annexes to the standard as mandatory. When using ASTM D6348–12 (Reapproved 2020), the following conditions must be met:

(A) The test plan preparation and implementation in the Annexes to ASTM D6348–12 (Reapproved 2020), Annexes A1 through A8 are mandatory; and

(B) In ASTM D6348–12 (Reapproved 2020) Annex A5 (Analyte Spiking Technique), the percent (%) R must be determined for each target analyte (Equation A5.5).

(C) In order for the test data to be acceptable for a compound, % R must be greater than or equal to 70% and less than or equal to 130%. If the % R value does not meet this criterion for a target compound, the test data is not acceptable for that compound and the test must be repeated for that analyte (*i.e.,* the sampling and/or analytical procedure should be adjusted before a retest). The % R value for each compound must be reported in the test report, and all field measurements must be corrected with the calculated % R value for that compound by using equation 8 to this paragraph (g)(1)(ii)(C):

Equation 8 to Paragraph (g)(1)(ii)(C)

Reported Results = ((Measured Concentration in Stack)/(% R)) × 100.

(2) Sample time should ensure that minimum quantification levels have been met under the methods used during each test run, for Method 320 in appendix A to this part or ASTM D6348–12 (Reapproved 2020) (incorporated by reference, see § 63.14), each test run must be at least one hour in duration. Three valid test runs are needed to comprise a performance test.

■ 27. Section 63.7323 is amended by revising paragraphs (c)(1) through (3) to read as follows:

§ 63.7323 What procedures must I use to establish operating limits?

* * * * *

(c) * * *

(1) If you elect the operating limit in § 63.7290(f)(3) for volumetric flow rate, measure and record the total volumetric flow rate at the inlet of the control device during each push sampled for each particulate matter test run. Your operating limit is the lowest volumetric flow rate recorded during any of the three runs that meet the emission limit.

(2) If you elect the operating limit in § 63.7290(f)(3)(i) for fan motor amperes, measure and record the fan motor amperes during each push sampled for each particulate matter test run. Your operating limit is the lowest fan motor amperes recorded during any of the three runs that meet the emission limit.

(3) If you elect the operating limit in § 63.7290(f)(3)(ii) for static pressure or fan RPM, measure and record the static pressure at the inlet of the control device or fan RPM during each push sampled for each particulate matter test run. Your operating limit for static pressure is the minimum vacuum recorded during any of the three runs that meets the emission limit. Your operating limit for fan RPM is the lowest fan RPM recorded during any of the three runs that meets the emission limit.

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■ 28. Section 63.7324 is amended by revising paragraph (a) to read as follows:

§ 63.7324 What procedures must I use to demonstrate initial compliance with the opacity limits?

(a) You must conduct each performance test that applies to your affected source based on representative performance (*i.e.,* performance based on the entire range of normal operating conditions) of the affected source for the period being tested, according to the requirements in paragraph (b) of this section. Representative conditions exclude periods of startup and shutdown. You shall not conduct performance tests during periods of malfunction. You must record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent the entire range of normal operation, including operational conditions for maximum emissions if such emissions are not expected during maximum production. You shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

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■ 29. Section 63.7325 is amended by revising paragraph (a) introductory text to read as follows:

§ 63.7325 What test methods and other procedures must I use to demonstrate initial compliance with the TDS or constituent limits for quench water?

(a) If you elect the TDS limit for quench water in § 63.7295(a)(1)(i), you must conduct each performance test that applies to your affected source based on representative performance (*i.e.,* performance based on the entire range of normal operating conditions) of the affected source for the period being tested, according to the conditions in paragraphs (a)(1) and (2) of this section. Representative conditions exclude periods of startup and shutdown. You shall not conduct performance tests during periods of malfunction. You must record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent the entire range of normal operation, including operational conditions for maximum emissions if such emissions are not expected during maximum production. You shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

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■ 30. Section 63.7326 is revised to read as follows:

§ 63.7326 How do I demonstrate initial compliance with the emission limitations that apply to me?

(a) For each coke oven battery subject to the emission limits from a control device applied to pushing emissions, you have demonstrated initial compliance if you meet the requirements in paragraphs (a)(1) through (9) of this section that apply to you.

(1) The concentration of particulate matter, measured in accordance with the performance test procedures in § 63.7322(b)(1) and (2), did not exceed 0.01 gr/dscf for a control device where a cokeside shed is used to capture pushing emissions or the process-weighted mass rate of particulate matter (lb/ton of coke), measured in accordance with the performance test procedures in § 63.7322(b)(1) through (4), did not exceed:

(i) 0.02 lb/ton of coke if a moveable hood vented to a stationary control device is used to capture emissions;

(ii) If a mobile scrubber car that does not capture emissions during travel is used, 0.03 lb/ton of coke from a control device applied to pushing emissions from a short coke oven battery or 0.01 lb/ton of coke from a control device applied to pushing emissions from a tall coke oven battery; and

(iii) 0.04 lb/ton of coke if a mobile control device that captures emissions during travel is used.

(2) The process-weighted mass rate of mercury (lb/ton of coke), measured in accordance with the performance test procedures in § 63.7322(c)(1) through (4), did not exceed 3.4E–07 lb/ton coke for pushing emissions from a new coke oven battery or 8.9E–07 lb/ton coke for pushing emissions from an existing coke oven battery.

(3) The process-weighted mass rate of total acid gases, the sum of hydrochloric acid and hydrofluoric acid (lb/ton of coke), measured in accordance with the performance test procedures in § 63.7322(d)(1) through (4), did not exceed 5.1E–04 lb/ton coke for pushing emissions from a new coke oven battery or 0.0052 lb/ton coke for pushing emissions from an existing coke oven battery.

(4) The process-weighted mass rate of hydrogen cyanide (lb/ton of coke), measured in accordance with the performance test procedures in § 63.7322(e)(1) through (4), did not exceed 3.8E–05 lb/ton coke for pushing emissions from a new coke oven battery or 0.0011 lb/ton coke for pushing emissions from an existing coke oven battery.

(5) The process-weighted mass rate of total PAH (lb/ton of coke), measured in accordance with the performance test procedures in § 63.7322(f)(1) through (4), did not exceed 1.4E–05 lb/ton coke for pushing emissions from a new coke oven battery or 3.4E–04 lb/ton coke for pushing emissions from an existing coke oven battery.

(6) For each venturi scrubber applied to pushing emissions, you have established appropriate site-specific operating limits and have a record of the pressure drop and scrubber water flow rate measured during the performance test in accordance with § 63.7323(a).

(7) For each hot water scrubber applied to pushing emissions, you have established appropriate site-specific operating limits and have a record of the water pressure and temperature measured during the performance test in accordance with § 63.7323(b).

(8) For each capture system applied to pushing emissions, you have established an appropriate site-specific operating limit, and:

(i) If you elect the operating limit in § 63.7290(f)(3) for volumetric flow rate, you have a record of the total volumetric flow rate at the inlet of the control device measured during the performance test in accordance with § 63.7323(c)(1); or

(ii) If you elect the operating limit in § 63.7290(f)(3)(i) for fan motor amperes, you have a record of the fan motor amperes during the performance test in accordance with § 63.7323(c)(2); or

(iii) If you elect the operating limit in § 63.7290(f)(3)(ii) for static pressure or fan RPM, you have a record of the static pressure at the inlet of the control device or fan RPM measured during the performance test in accordance with § 63.7323(c)(3).

(9) For each multicyclone applied to pushing emissions, you have established an appropriate site-specific operating limit and have a record of the pressure drop measured during the performance test in accordance with § 63.7323(d).

(b) For each new or existing by-product coke oven battery subject to the emission limits in § 63.7296, you have demonstrated initial compliance if you meet the requirements in paragraphs (b)(1) through (5) of this section.

(1) The opacity limit for stacks in § 63.7296(a), you have demonstrated initial compliance if the daily average opacity, as measured according to the performance test procedures in § 63.7324(b), is no more than 15 percent for a battery on a normal coking cycle or 20 percent for a battery on batterywide extended coking.

(2) The concentration of particulate matter, measured in accordance with the performance test procedures in § 63.7322(b)(1) and (2), did not exceed 0.013 gr/dscf at 10 percent oxygen from a battery stack at a new by-product coke oven battery or 0.13 gr/dscf at 10 percent oxygen from a battery stack at an existing by-product coke oven battery.

(3) The process-weighted mass rate of mercury (lb/ton of coke), measured in accordance with the performance test procedures in § 63.7322(c)(1) through (4), did not exceed 7.1E–06 lb/ton coke from a battery stack at a new by-product coke oven battery or 4.5E–05 lb/ton coke from a battery stack at an existing by-product coke oven battery.

(4) The process-weighted mass rate of total acid gases (lb/ton of coke), measured in accordance with the performance test procedures in § 63.7322(d)(1) through (4), did not exceed 0.013 lb/ton coke from a battery stack at a new by-product coke oven battery or 0.16 lb/ton coke from a battery stack at an existing by-product coke oven battery.

(5) The process-weighted mass rate of hydrogen cyanide (lb/ton of coke), measured in accordance with the performance test procedures in § 63.7322(e)(1) through (4), did not exceed 7.4E–04 lb/ton coke from a battery stack at a new by-product coke oven battery or 0.032 lb/ton coke from a battery stack at an existing by-product coke oven battery.

(c) For each new or existing by-product coke oven battery subject to the TDS limit or constituent limits for quench water in § 63.7295(a)(1),

(1) You have demonstrated initial compliance with the TDS limit in § 63.7295(a)(1)(i) if the TDS concentration, as measured according to the performance test procedures in § 63.7325(a), does not exceed 1,100 mg/L.

(2) You have demonstrated initial compliance with the constituent limit in § 63.7295(a)(1)(ii) if:

(i) You have established a site-specific constituent limit according to the procedures in § 63.7325(b); and

(ii) The sum of the constituent concentrations, as measured according to the performance test procedures in § 63.7325(c), is less than or equal to the site-specific limit.

(d) For each new or existing HNR HRSG main stack subject to the emission limits in § 63.7297, you have demonstrated initial compliance if you meet the requirements in paragraphs (d)(1) through (4) of this section.

(1) The concentration of particulate matter, measured in accordance with the performance test procedures in § 63.7322(b)(1) and (2), did not exceed 8.8E–04 gr/dscf at 10 percent oxygen from a HNR HRSG main stack at a new HNR coke battery or 0.0049 gr/dscf at 10 percent oxygen at a HNR HRSG main stack at an existing HNR coke oven battery.

(2) The concentration of mercury, measured in accordance with the performance test procedures in § 63.7322(c)(1) and (2), did not exceed 1.5E–06 gr/dscf at 10 percent oxygen from a HNR HRSG main stack at a new HNR coke battery or 3.0E–06 gr/dscf at 10 percent oxygen at a HNR HRSG main stack at an existing HNR HRSG.

(3) The concentration of total acid gases, measured in accordance with the performance test procedures in § 63.7322(d)(1) and (2), did not exceed 3.4E–03 gr/dscf at 10 percent oxygen from a HNR HRSG main stack at a new coke oven battery or 4.9E–02 gr/dscf at 10 percent oxygen at a HNR HRSG main stack at an existing HNR coke oven battery.

(4) The concentration of total PAHs, measured in accordance with the performance test procedures in § 63.7322(f)(1) and (2), did not exceed 4.7E–07 gr/dscf at 10 percent oxygen from a HNR HRSG main stack at a new coke oven battery or 4.8E–07 gr/dscf at 10 percent oxygen at a HNR HRSG main stack at an existing HNR coke oven battery.

(e) For each HNR HRSG bypass/waste heat stack through which emissions are discharged from a new or existing coke oven battery subject to the emission limits in § 63.7298, you have demonstrated initial compliance if you meet the requirements in paragraphs (e)(1) through (5) of this section.

(1) The concentration of particulate matter, measured in accordance with the performance test procedures in § 63.7322(b)(1) and (2), did not exceed 0.022 gr/dscf at 10 percent oxygen from a HNR HRSG bypass/waste heat stack at a new HNR coke oven battery or 0.032 gr/dscf at 10 percent oxygen from a HNR HRSG bypass/waste heat stack at an existing HNR coke oven battery.

(2) The concentration of mercury, measured in accordance with the performance test procedures in § 63.7322(c)(1) and (2), did not exceed 8.6E–06 gr/dscf at 10 percent oxygen from a HNR HRSG bypass/waste heat stack at a new HNR coke oven battery or 1.2E–05 gr/dscf at 10 percent oxygen from a HNR HRSG bypass/waste heat stack at an existing HNR coke battery.

(3) The concentration of total acid gases, measured in accordance with the performance test procedures in § 63.7322(d)(1) and (2), did not exceed 0.12 gr/dscf at 10 percent oxygen from a HNR HRSG bypass/waste heat stack at a new HNR coke oven battery or 0.095 gr/dscf at 10 percent oxygen from a HNR HRSG bypass/waste heat stack at an existing HNR coke oven battery.

(4) The concentration of total PAHs, measured in accordance with the performance test procedures in § 63.7322(f)(1) and (2), did not exceed 2.7E–06 gr/dscf at 10 percent oxygen from a HNR HRSG bypass/waste heat stack at a new coke oven battery or existing HNR coke oven battery.

(5) The concentration of formaldehyde, measured in accordance with the performance test procedures in § 63.7322(g)(1) and (2), did not exceed 1.8E–05 gr/dscf at 10 percent oxygen from a HNR HRSG bypass/waste heat stack at a new HNR coke oven battery or 0.0012 gr/dscf at 10 percent oxygen from a HNR HRSG bypass/waste heat stack at an existing HNR coke oven battery.

(f) For each by-product coke oven battery stack subject to an opacity limit in § 63.7296(a) and each by-product coke oven battery subject to the requirements for quench water in § 63.7295(a)(1), you must submit a notification of compliance status containing the results of the COMS performance test for battery stacks and the quench water performance test (TDS or constituent limit) according to § 63.7340(e)(1). For each particulate matter, mercury, total acid gases, hydrogen cyanide, total PAHs, or formaldehyde emission limitation that applies to you, you must submit a notification of compliance status containing a summary of the results of the performance test according to § 63.7340(e)(2).

■ 31. Section 63.7327 is amended by revising paragraph (c) to read as follows:

§ 63.7327 How do I demonstrate initial compliance with the work practice standards that apply to me?

* * * * *

(c) For each nonrecovery coke oven battery subject to the work practice standards for fugitive pushing emissions in § 63.7293(a), you have demonstrated initial compliance if you certify in your notification of compliance status that you will meet each of the work practice requirements beginning no later than the compliance date that is specified in § 63.7283.

* * * * *

■ 32. Section 63.7331 is amended by revising paragraphs (b)(4) through (6) and (g) through (i) to read as follows:

§ 63.7331 What are the installation, operation, and maintenance requirements for my monitors?

* * * * *

(b) * * *

(4) Ongoing operation and maintenance procedures in accordance with the general requirements of § 63.8(c)(1)(ii), (3), (4)(ii), (7), and (8);

(5) Ongoing data quality assurance procedures in accordance with the general requirements of §§ 63.8(d)(1) and (2) and 63.7342(b)(3); and

(6) Ongoing recordkeeping and reporting procedures in accordance the general requirements of § 63.10(c)(1) through (14) and (e)(1) and (2)(i).

* * * * *

(g) If you elect the operating limit in § 63.7290(f)(3) for a capture system applied to pushing emissions, you must install, operate, and maintain a device to measure the total volumetric flow rate at the inlet of the control device.

(h) If you elect the operating limit in § 63.7290(f)(3)(i) for a capture system applied to pushing emissions, you must install, operate, and maintain a device to measure the fan motor amperes.

(i) If you elect the operating limit in § 63.7290(f)(3)(ii) for a capture system applied to pushing emissions, you must install, operate and maintain a device to measure static pressure at the inlet of the control device or the fan RPM.

* * * * *

■ 33. Section 63.7333 is revised to read as follows:

§ 63.7333 How do I demonstrate continuous compliance with the emission limitations that apply to me?

(a) For each control device applied to pushing emissions and subject to the emission limit in § 63.7290(a), you must demonstrate continuous compliance by meeting the requirements in paragraphs (a)(1) and (2) of this section:

(1) Maintaining emissions of particulate matter at or below the applicable limits in paragraphs § 63.7290(a)(1) through (4); and

(2) Conducting subsequent performance tests to demonstrate continuous compliance no less frequently than at the beginning of your title V operating permit or every 5 years, whichever is less.

(b) For each control device applied to pushing emissions and subject to the emission limits in § 63.7290(b) through (e), you must demonstrate continuous compliance by meeting the requirements in paragraphs (b)(1) through (5) of this section:

(1) Maintaining emissions of mercury at or below the applicable limits in § 63.7290(b);

(2) Maintaining emissions of total acid gases at or below the applicable limits in § 63.7290(c);

(3) Maintaining emissions of hydrogen cyanide at or below the applicable limits in § 63.7290(d);

(4) Maintaining emissions of total PAHs at or below the applicable limits in § 63.7290(e); and

(5) Conducting subsequent performance tests to demonstrate continuous compliance once every five years.

(c) For each venturi scrubber applied to pushing emissions and subject to the operating limits in § 63.7290(f)(1), you must demonstrate continuous compliance by meeting the requirements in paragraphs (c)(1) through (3) of this section.

(1) Maintaining the daily average pressure drop and scrubber water flow rate at levels no lower than those established during the initial or subsequent performance test.

(2) Operating and maintaining each CPMS according to § 63.7331(b) and recording all information needed to document conformance with these requirements.

(3) Collecting and reducing monitoring data for pressure drop and scrubber water flow rate according to § 63.7331(e)(1) through (3).

(d) For each hot water scrubber applied to pushing emissions and subject to the operating limits in § 63.7290(f)(2), you must demonstrate continuous compliance by meeting the requirements in paragraphs (d)(1) through (3) of this section.

(1) Maintaining the daily average water pressure and temperature at levels no lower than those established during the initial or subsequent performance test.

(2) Operating and maintaining each CPMS according to § 63.7331(b) and recording all information needed to document conformance with these requirements.

(3) Collecting and reducing monitoring data for water pressure and temperature according to § 63.7331(f).

(e) For each capture system applied to pushing emissions and subject to the operating limit in § 63.7290(f)(3), you must demonstrate continuous compliance by meeting the requirements in paragraph (e)(1), (2), or (3) of this section:

(1) If you elect the operating limit for volumetric flow rate in § 63.7290(f)(3):

(i) Maintaining the daily average volumetric flow rate at the inlet of the control device at or above the minimum level established during the initial or subsequent performance test; and

(ii) Checking the volumetric flow rate at least every 8 hours to verify the daily average is at or above the minimum level established during the initial or subsequent performance test and recording the results of each check.

(2) If you elect the operating limit for fan motor amperes in § 63.7290(f)(3)(i):

(i) Maintaining the daily average fan motor amperages at or above the minimum level established during the initial or subsequent performance test; and

(ii) Checking the fan motor amperage at least every 8 hours to verify the daily average is at or above the minimum level established during the initial or subsequent performance test and recording the results of each check.

(3) If you elect the operating limit for static pressure or fan RPM in § 63.7290(f)(3)(ii):

(i) Maintaining the daily average static pressure at the inlet to the control device at an equal or greater vacuum than established during the initial or subsequent performance test or the daily average fan RPM at or above the minimum level established during the initial or subsequent performance test; and

(ii) Checking the static pressure or fan RPM at least every 8 hours to verify the daily average static pressure at the inlet to the control device is at an equal or greater vacuum than established during the initial or subsequent performance test or the daily average fan RPM is at or above the minimum level established during the initial or subsequent performance test and recording the results of each check.

(f) Beginning on the first day compliance is required under § 63.7283, you must demonstrate continuous compliance for each by-product coke oven battery subject to the opacity limit for battery stacks in § 63.7296(a) by meeting the requirements in paragraphs (f)(1) and (2) of this section:

(1) Maintaining the daily average opacity at or below 15 percent for a battery on a normal coking cycle or 20 percent for a battery on batterywide extended coking; and

(2) Operating and maintaining a COMS and collecting and reducing the COMS data according to § 63.7331(j).

(g) For each battery stack subject to the emission limits in § 63.7296(c) through (f), you must demonstrate continuous compliance by meeting the requirements in paragraphs (g)(1) through (5) of this section:

(1) Maintaining emissions of particulate matter at or below the applicable limits in § 63.7296(c);

(2) Maintaining emissions of mercury at or below the applicable limits in § 63.7296(d);

(3) Maintaining emissions of total acid gases at or below the applicable limits in § 63.7296(e);

(4) Maintaining emissions of hydrogen cyanide at or below the applicable limits in § 63.7296(f); and

(5) Conducting subsequent performance tests to demonstrate continuous compliance once every five years.

(h) Beginning on the first day compliance is required under § 63.7283, you must demonstrate continuous compliance with the TDS limit for quenching in § 63.7295(a)(1)(i) by meeting the requirements in paragraphs (h)(1) and (2) of this section:

(1) Maintaining the TDS content of the water used to quench hot coke at 1,100 mg/L or less; and

(2) Determining the TDS content of the quench water at least weekly according to the requirements in § 63.7325(a) and recording the sample results.

(i) Beginning on the first day compliance is required under § 63.7283, you must demonstrate continuous compliance with the constituent limit for quenching in § 63.7295(a)(1)(ii) by meeting the requirements in paragraphs (i)(1) and (2) of this section:

(1) Maintaining the sum of the concentrations of benzene, benzo(a)pyrene, and naphthalene in the water used to quench hot coke at levels less than or equal to the site-specific limit approved by the permitting authority; and

(2) Determining the sum of the constituent concentrations at least monthly according to the requirements in § 63.7325(c) and recording the sample results.

(j) For each multicyclone applied to pushing emissions and subject to the operating limit in § 63.7290(f)(4), you must demonstrate compliance by meeting the requirements in paragraphs (j)(1) through (3) of this section.

(1) Maintaining the daily average pressure drop at a level at or below the level established during the initial or subsequent performance test.

(2) Operating and maintaining each CPMS according to § 63.7331(k) and recording all information needed to document conformance with these requirements.

(3) Collecting and reducing monitoring data for pressure drop according to § 63.7331(e)(1) through (3).

(k) For each HNR HRSG main stack subject to the emission limits in § 63.7297(a) through (d), you must demonstrate continuous compliance by meeting the requirements in paragraphs (k)(1) through (5) of this section:

(1) Maintaining emissions of particulate matter at or below the applicable limits in § 63.7297(a);

(2) Maintaining emissions of mercury at or below the applicable limits in § 63.7297(b);

(3) Maintaining emissions of total acid gases at or below the applicable limits in § 63.7297(c);

(4) Maintaining emissions of total PAHs at or below the applicable limits in § 63.7297(d); and

(5) Conducting subsequent performance tests to demonstrate continuous compliance once every five years.

(l) For each HNR HRSG bypass/waste heat stack subject to the emission limits in § 63.7298(a) through (e), you must demonstrate continuous compliance by meeting the requirements in paragraphs (l)(1) through (6) of this section:

(1) Maintaining emissions of particulate matter at or below the applicable limits in § 63.7298(a);

(2) Maintaining emissions of mercury at or below the applicable limits in § 63.7298(b);

(3) Maintaining emissions of total acid gases at or below the applicable limits in § 63.7298(c);

(4) Maintaining emissions of total PAHs at or below the applicable limits in § 63.7298(d);

(5) Maintaining emissions of total formaldehyde at or below the applicable limits in § 63.7298(e); and

(6) Conducting subsequent performance tests to demonstrate continuous compliance once every five years.

■ 34. Section 63.7334 is amended by revising paragraphs (a)(3), (4), and (c) to read as follows:

§ 63.7334 How do I demonstrate continuous compliance with the work practice standards that apply to me?

(a) * * *

(3) Make all observations and calculations for opacity observations of fugitive pushing emissions in accordance with Method 9 in appendix A–4 to 40 CFR part 60 using a Method 9 certified observer unless you have an approved alternative procedure under paragraph (a)(7) of this section. Alternatively, ASTM D7520–16, (incorporated by reference, see § 63.14) may be used with the following conditions:

(i) During the digital camera opacity technique (DCOT) certification procedure outlined in section 9.2 of ASTM D7520–16 (incorporated by reference, see § 63.14), the owner or operator or the DCOT vendor must present the plumes in front of various backgrounds of color and contrast representing conditions anticipated during field use such as blue sky, trees, and mixed backgrounds (clouds and/or a sparse tree stand).

(ii) The owner or operator must also have standard operating procedures in place including daily or other frequency quality checks to ensure the equipment is within manufacturing specifications as outlined in section 8.1 of ASTM D7520–16 (incorporated by reference, see § 63.14).

(iii) The owner or operator must follow the recordkeeping procedures outlined in § 63.10(b)(1) for the DCOT certification, compliance report, data sheets, and all raw unaltered JPEGs used for opacity and certification determination.

(iv) The owner or operator or the DCOT vendor must have a minimum of four independent technology users apply the software to determine the visible opacity of the 300 certification plumes. For each set of 25 plumes, the user may not exceed 15 percent opacity of anyone reading and the average error must not exceed 7.5 percent opacity.

(v) Use of this approved alternative does not provide or imply a certification or validation of any vendor's hardware or software. The onus to maintain and verify the certification and/or training of the DCOT camera, software, and operator in accordance with ASTM D7520–16 (incorporated by reference, see § 63.14) and these requirements is on the facility, DCOT operator, and DCOT vendor.

(4) Record pushing opacity observations at 15-second intervals as required in section 2.4 of Method 9 in appendix A–4 to 40 CFR part 60. The requirement in section 2.4 of Method 9 for a minimum of 24 observations does not apply, and the data reduction requirements in section 2.5 of Method 9 do not apply. The requirement in § 63.6(h)(5)(ii)(B) for obtaining at least 3 hours of observations (thirty 6-minute averages) to demonstrate initial compliance does not apply. Alternatively, ASTM D7520–16, (incorporated by reference, see § 63.14) may be used with the following conditions:

(i) During the digital camera opacity technique (DCOT) certification procedure outlined in section 9.2 of ASTM D7520–16 (incorporated by reference, see § 63.14), the owner or operator or the DCOT vendor must present the plumes in front of various backgrounds of color and contrast representing conditions anticipated during field use such as blue sky, trees, and mixed backgrounds (clouds and/or a sparse tree stand).

(ii) The owner or operator must also have standard operating procedures in place including daily or other frequency quality checks to ensure the equipment is within manufacturing specifications as outlined in section 8.1 of ASTM D7520–16 (incorporated by reference, see § 63.14).

(iii) The owner or operator must follow the recordkeeping procedures outlined in § 63.10(b)(1) for the DCOT certification, compliance report, data sheets, and all raw unaltered JPEGs used for opacity and certification determination.

(iv) The owner or operator or the DCOT vendor must have a minimum of four independent technology users apply the software to determine the visible opacity of the 300 certification plumes. For each set of 25 plumes, the user may not exceed 15 percent opacity of anyone reading and the average error must not exceed 7.5 percent opacity.

(v) Use of this approved alternative does not provide or imply a certification or validation of any vendor's hardware or software. The onus to maintain and verify the certification and/or training of the DCOT camera, software, and operator in accordance with ASTM D7520–16 (incorporated by reference, see § 63.14) and these requirements is on the facility, DCOT operator, and DCOT vendor.

* * * * *

(c) For each nonrecovery coke oven battery subject to the work practice standards in § 63.7293(a), you must demonstrate continuous compliance by maintaining records that document each visual inspection of an oven prior to pushing and that the oven was not pushed unless there was no smoke in the open space above the coke bed and there was an unobstructed view of the door on the opposite side of the oven.

* * * * *

■ 35. Section 63.7336 is revised to read as follows:

§ 63.7336 What other requirements must I meet to demonstrate continuous compliance?

You must report each instance in which you did not meet each emission limitation in this subpart that applies to you. This includes periods of startup, shutdown, and malfunction. You must also report each instance in which you did not meet each work practice standard or operation and maintenance requirement in this subpart that applies to you. These instances are deviations from the emission limitations (including operating limits), work practice standards, and operation and maintenance requirements in this subpart. These deviations must be reported according to the requirements in § 63.7341.

(a) In the event that an affected unit fails to meet an applicable standard, record the number of failures. For each failure, record the start date, start time and duration (in hours) of each failure.

(b) For each failure to meet an applicable standard, record and retain a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit and a description of the method used to estimate the emissions.

(c) Record actions taken to minimize emissions in accordance with § 63.7310(a), and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

■ 36. Section 63.7340 is amended by revising paragraph (e)(2) to read as follows:

§ 63.7340 What notifications must I submit and when?

* * * * *

(e) * * *

(2) For each initial compliance demonstration that does include a performance test, you must submit the notification of compliance status, including a summary of the performance test results, before the close of business on the 60th calendar day following completion of the performance test according to § 63.10(d)(2).

* * * * *

■ 37. Section 63.7341 is revised to read as follows:

§ 63.7341 What reports must I submit and when?

(a) *Compliance report due dates.* Unless the Administrator has approved a different schedule, you must submit quarterly compliance reports for battery stacks and semiannual compliance reports for all other affected sources to your permitting authority according to the requirements in paragraphs (a)(1) through (4) of this section.

(1) The first quarterly compliance report for battery stacks must cover the period beginning on the compliance date that is specified for your affected source in § 63.7283 and ending on the last date of the third calendar month. Each subsequent compliance report must cover the next calendar quarter.

(2) The first semiannual compliance report must cover the period beginning on the compliance date that is specified for your affected source in § 63.7283 and ending on June 30 or December 31, whichever date comes first after the compliance date that is specified for your affected source. Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(3) All quarterly compliance reports for battery stacks must be postmarked or delivered no later than one calendar month following the end of the quarterly reporting period. All semiannual compliance reports must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(4) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (a)(1) through (4) of this section.

(b) *Quarterly compliance report contents.* Each quarterly report must provide information on compliance with the emission limitations for battery stacks in § 63.7296. The reports must include the information in paragraphs (c)(1) through (3), and as applicable, paragraphs (c)(4) through (8) of this section.

(c) *Semiannual compliance report contents.* Each compliance report must provide information on compliance with the emission limitations, work practice standards, and operation and maintenance requirements for all affected sources except battery stacks. The reports must include the information in paragraphs (c)(1) through (3) of this section, and as applicable, paragraphs (c)(4) through (8) of this section.

(1) Company name and address (including county).

(2) Statement by a responsible official, with the official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. If your report is submitted via the Compliance and Emissions Data Reporting Interface (CEDRI), the certifier's electronic signature during the submission process replaces this requirement.

(3) Date of report and beginning and ending dates of the reporting period. You are no longer required to provide the date of report when the report is submitted via CEDRI.

(4) Beginning on January 2, 2025, if you failed to meet an applicable standard, the compliance report must include, for each instance, the start date, start time, and duration (in hours) of each failure. For each failure, the compliance report must include a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions.

(5) If there were no deviations from the continuous compliance requirements in § 63.7333(e) for battery stacks, a statement that there were no deviations from the emission limitations during the reporting period. If there were no deviations from the continuous compliance requirements in §§ 63.7333 through 63.7335 that apply to you (for all affected sources other than battery stacks), a statement that there were no deviations from the emission limitations, work practice standards, or operation and maintenance requirements during the reporting period.

(6) If there were no periods during which a continuous monitoring system (including COMS, continuous emission monitoring system (CEMS), or CPMS) was out-of-control as specified in § 63.8(c)(7), a statement that there were no periods during which a continuous monitoring system was out-of-control during the reporting period.

(7) For each deviation from an emission limitation in this subpart (including quench water limits) and for each deviation from the requirements for work practice standards in this subpart that occurs at an affected source where you are not using a continuous monitoring system (including a COMS, CEMS, or CPMS) to comply with the emission limitations in this subpart, the compliance report must contain the information in paragraphs (7)(i) and (ii) of this section. This includes periods of startup, shutdown, and malfunction.

(i) The total operating time of each affected source during the reporting period.

(ii) Information on the duration and cause of deviations (including unknown cause, if applicable) as applicable and the corrective action taken.

(8) For each deviation from an emission limitation occurring at an affected source where you are using a continuous monitoring system (including COMS, CEMS, or CPMS) to comply with the emission limitation in this subpart, you must include the information in paragraphs (c)(4) and (8)(i) through (xii) of this section. This includes periods of startup, shutdown, and malfunction.

(i) The date and time that each malfunction started and stopped.

(ii) The start date, start time, and duration in hours that each continuous monitoring system (including COMS, CEMS, or CPMS) was inoperative, except for zero (low-level) and high-level checks.

(iii) The start date, start time, and duration in hours that each continuous monitoring system (including COMS, CEMS, or CPMS) was out-of-control, including the information in § 63.8(c)(8).

(iv) The date and time that each deviation started and stopped, the duration in hours, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(v) A summary of the total duration in hours of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.

(vi) A breakdown of the total duration in hours of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(vii) A summary of the total duration in hours of continuous monitoring system downtime during the reporting period and the total duration of continuous monitoring system downtime as a percent of the total source operating time during the reporting period.

(viii) An identification of each HAP that was monitored at the affected source.

(ix) A brief description of the process units.

(x) A brief description of the continuous monitoring system.

(xi) The date of the latest continuous monitoring system certification or audit.

(xii) A description of any changes in continuous monitoring systems, processes, or controls since the last reporting period.

(xiii) The total operating time of each affected source during the reporting period.

(d) [Reserved]

(e) *Part 70 monitoring report.* If you have obtained a title V operating permit for an affected source pursuant to 40 CFR part 70 or 40 CFR part 71, you must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If you submit a compliance report for an affected source along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all the required information concerning deviations from any emission limitation or work practice standard in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report does not otherwise affect any obligation you may have to report deviations from permit requirements to your permitting authority.

(f) *Electronic reporting of compliance reports.* Beginning on July 7, 2026, or once the report template for this subpart has been available on the CEDRI website for one year, whichever date is later, submit all subsequent reports to the EPA via the CEDRI according to § 63.9(k) except that confidential business information (CBI) should be submitted according to paragraph (h) of this section.

(g) *Electronic Reporting of Performance Tests.* Beginning on September 3, 2024, within 60 days after the date of completing each performance test required by this subpart, you must submit the results of the performance test following the procedure specified in § 63.9(k). CBI should be submitted according to paragraph (h) of this section. Data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (*https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert*) at the time of the test must be submitted in a file format generated using the EPA's ERT. Alternatively, you may submit an electronic file consistent with the extensible markup language (XML) schema listed on the EPA's ERT website. Data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test must be included as an attachment in the ERT or alternate electronic file. If a performance test consists only of opacity measurements, reporting using the ERT and CEDRI is not required.

(h) *Confidential business information (CBI).* For notifications and reports required to be submitted to CEDRI:

(1) The EPA will make all the information submitted through CEDRI available to the public without further notice to you. Do not use CEDRI to submit information you claim as CBI. Although we do not expect persons to assert a claim of CBI, if you wish to assert a CBI claim for some of the information submitted under paragraph (f) or (g) of this section, you must submit a complete file, including information claimed to be CBI, to the EPA.

(2) For performance test reports according to paragraph (g) of this section, the file must be generated using the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website.

(3) Clearly mark the part or all of the information that you claim to be CBI. Information not marked as CBI may be authorized for public release without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.

(4) The preferred method to receive CBI is for it to be transmitted electronically using email attachments, File Transfer Protocol, or other online file sharing services. Electronic submissions must be transmitted directly to the OAQPS CBI Office at the email address *oaqpscbi@epa.gov,* and as described above, should include clear CBI markings. For performance test reports, CBI should be flagged to the attention of, the Group Leader, Measurement Policy Group; for all other reports and notifications, the Coke Ovens Sector Lead should be flagged. If assistance is needed with submitting large electronic files that exceed the file size limit for email attachments, and if you do not have your own file sharing service, please email *oaqpscbi@epa.gov* to request a file transfer link.

(5) If you cannot transmit the file electronically, you may send CBI information through the postal service to the following address: OAQPS Document Control Officer (C404–02), OAQPS, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, Attention Group Leader, Measurement Policy Group or Coke Oven Sector Lead as indicated in paragraph (4) of this section. The mailed CBI material should be double wrapped and clearly marked. Any CBI markings should not show through the outer envelope.

(6) All CBI claims must be asserted at the time of submission. Anything submitted using CEDRI cannot later be claimed CBI. Furthermore, under CAA section 114(c), emissions data is not entitled to confidential treatment, and the EPA is required to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available.

(7) You must submit the same file submitted to the CBI office with the CBI omitted to the EPA via the EPA's CDX as described in paragraph (f) or (g) of this section.

■ 38. Section 63.7342 is revised to read as follows:

§ 63.7342 What records must I keep?

(a) You must keep the records specified in paragraphs (a)(1) through (5) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any initial notification or notification of compliance status that you submitted, according to the requirements in § 63.10(b)(2)(xiv).

(2) Beginning on January 2, 2025, records of the occurrence and duration of each startup, shutdown, or malfunction of process, air pollution control, and monitoring equipment.

(3) Beginning on January 2, 2025, for each failure to meet an applicable standard, a list of the affected sources or equipment, whether the failure occurred during startup, shutdown, or malfunction, and records of the start date, start time, and duration (in hours) of each failure to meet an applicable standard. Include an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions.

(4) Beginning on January 2, 2025, records of the actions taken to minimize emissions in accordance with § 63.7310(a), and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

(5) Records of performance tests, performance evaluations, and opacity observations as required in § 63.10(b)(2)(viii).

(b) For each COMS or CEMS, you must keep the records specified in paragraphs (b)(1) through (4) of this section.

(1) Records described in § 63.10(b)(2)(vi) through (xi).

(2) Monitoring data for COMS during a performance evaluation as required in § 63.6(h)(7)(i) and (ii).

(3) You shall keep these written procedures on record for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Administrator. If the performance evaluation plan is revised, you shall keep previous (*i.e.,* superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. The program of corrective action should be included in the plan required under § 63.8(d)(2).

(4) Records of the date and time that each deviation started and stopped, the cause of the deviation, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(c) You must keep the records in § 63.6(h)(6) for visual observations.

(d) You must keep the records required in §§ 63.7333 through 63.7335 to show continuous compliance with each emission limitation, work practice standard, and operation and maintenance requirement that applies to you.

■ 39. Section 63.7351 is amended by:

■ a. Revising paragraph (c)(1); and

■ b. Adding paragraph (c)(7).

The revision and addition read as follows:

§ 63.7351 Who implements and enforces this subpart?

* * * * *

(c) * * *

(1) Approval of alternatives to work practice standards for fugitive pushing emissions in § 63.7291(a) for a by-product coke oven battery with vertical flues, fugitive pushing emissions in § 63.7292(a) for a by-product coke oven battery with horizontal flues, fugitive pushing emissions in § 63.7293 for a nonrecovery coke oven battery, soaking for a by-product coke oven battery in § 63.7294(a), and quenching for a coke oven battery in § 63.7295(b) under § 63.6(g).

* * * * *

(7) Approval of an alternative to any electronic reporting to the EPA required by this subpart.

■ 40. Section 63.7352 is amended by:

■ a. Adding definitions in alphabetical order for ‘‘Battery waste heat flues’’ and ‘‘Bypass stack’’;

■ b. Revising definitions of ‘‘Coke oven battery’’ and ‘‘Coke plant’’;

■ c. Adding definitions in alphabetical order for ‘‘Heat and/or nonrecovery coke oven battery’’, ‘‘Heat recovery steam generator’’, ‘‘Heat recovery steam generator bypass/waste heat stack’’, and ‘‘Heat recovery steam generator main stack’’;

■ d. Revising the definition for ‘‘Nonrecovery coke oven battery’’; and

■ e. Adding definitions in alphabetical order for ‘‘Pushing/charging machine (PCM)’’, ‘‘Total acid gases’’, ‘‘Total polycyclic aromatic hydrocarbons (total PAH)’’, and ‘‘Waste heat stack’’.

The additions and revisions read as follows:

§ 63.7352 What definitions apply to this subpart?

* * * * *

Battery waste heat flues means the channels outside the coke oven and between the wall separating adjacent ovens as well as each end wall. At any one time, half of the flues in a given wall will be burning gas while the other half will be conveying waste heat from the combustion flues to a brick heat exchanger and then on to the battery combustion stack.

* * * * *

Bypass stack at a heat recovery facility means a stack through which emissions are discharged from a common tunnel that collects gases from a coke oven battery. and where the emissions are not passed through a heat recovery unit. Common tunnels typically are equipped with afterburners to further reduce organic emissions in the coke oven gas.

* * * * *

Coke oven battery means a group of ovens connected by common walls, where coal undergoes destructive distillation to produce coke. A coke oven battery includes by-product and nonrecovery processes.

Coke plant means a facility that produces coke from coal in either a by-product coke oven battery or a nonrecovery coke oven battery.

* * * * *

Heat and/or nonrecovery coke oven battery means a group of ovens, connected by common side walls, in which coal undergoes destructive distillation under negative pressure to produce coke and coke oven gas and from which by-products are not recovered. The common tunnels typically contain afterburners to further reduce organic emissions in the coke oven gas. For nonrecovery plants (*i.e.,* no chemical recovery) with heat recovery, the oven gases are vented through common tunnels to a heat recovery steam generator that produces steam. Heat recovery coke oven batteries may release oven gases through common tunnels and then into the atmosphere through bypass stacks when the heat recovery steam generators are not available due to maintenance or repair. For nonrecovery coke oven batteries (*i.e.,* no chemical recovery) without heat recovery, oven gases are vented through common tunnels and then released to the atmosphere through waste heat stacks.

Heat recovery steam generator is a process unit that recovers heat from coke oven gas in order to produce steam. Units typically are equipped with desulfurization units and baghouses to remove pollutants from the exhaust gases.

Heat recovery steam generator bypass/waste heat stack means a stack that allows coke oven gas to be vented from the coke oven batteries through common tunnels and into the atmosphere when there are no heat recovery steam generator units available for heat recovery. Common tunnels typically are equipped with afterburners to further reduce organic emissions in the coke oven gas.

Heat recovery steam generator main stack means the stack that is the point of final discharge to the atmosphere of the gases emanating from a heat recovery steam generator and its control devices, which typically are desulfurization units and baghouses.

* * * * *

Nonrecovery coke oven battery means a group of ovens, connected by common walls, where coal undergoes destructive distillation under negative pressure to produce coke and which is designed for the combustion of the coke oven gas from which by-products are not recovered. Also known as a heat and/or nonrecovery battery. Nonrecovery coke oven battery refers to units from which heat is recovered from the coke oven gas exhaust as well as units where heat is not recovered. Both heat and/or nonrecovery batteries are connected by common tunnels that typically include afterburners to further reduce organic emissions in the coke oven gas.

* * * * *

Pushing/charging machine (PCM) means the combined coke oven pushing and charging machine operated on rail tracks to open an oven door, push the finished coke from the open oven, and close the oven door, and to charge the adjacent oven with coal to start the coking cycle. Typically used with horizontal ovens such as those at nonrecovery coke facilities.

* * * * *

Total acid gases means the sum of hydrogen chloride and hydrogen fluoride.

Total polycyclic aromatic hydrocarbons (total PAH) means the sum of acenaphthene, acenaphthylene, anthracene, benz[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, benzo[g,h,i]perylene, benzo[k]fluoranthene, chrysene, dibenz[a,h]anthracene, fluoranthene, fluorene, indeno (1,2,3-cd) pyrene, naphthalene, phenanthrene, perylene, and pyrene.

* * * * *

Waste heat stack at a heat and/or nonrecovery facility means a stack that allows coke oven gas to be vented from the coke oven batteries through common tunnels and into the atmosphere when there are no units available for heat recovery. Common tunnels typically contain afterburners to further reduce organic emissions in coke oven gas.

* * * * *

■ 41. Revise table 1 to subpart CCCCC of part 63 to read as follows:

Table 1 to Subpart CCCCC of Part 63—Applicability of General Provisions to Subpart CCCCC

As required in § 63.7350, you must comply with each applicable requirement of the NESHAP General Provisions (subpart A of this part) as shown in the following table:

Citation	Subject	Applies to subpart CCCCC?	Explanation
§ 63.1	Applicability	Yes.	
§ 63.2	Definitions	Yes.	
§ 63.3	Units and Abbreviations	Yes.	
§ 63.4	Prohibited Activities	Yes.	
§ 63.5	Construction/Reconstruction	Yes.	
§ 63.6(a), (b), (c), (d), (e)(1)(iii), (f)(2)–(3), (g), (h)(2)–(8).	Compliance with Standards and Maintenance Requirements.	Yes.	
§ 63.6(e)(1)(i)	General Duty to Minimize Emissions	No	See § 63.7310(a) for general duty requirement.
§ 63.6(e)(1)(ii)	Requirement to Correct Malfunctions ASAP	No.	
§ 63.6(e)(3)	SSM Plan Requirements	No.	
§ 63.6(f)(1)	SSM Exemption	No.	
§ 63.6(h)(1)	SSM Exemption	No.	
§ 63.6(h)(9)	Adjustment to an Opacity Emission Standard.	Yes.	
§ 63.7(a)(3), (b)–(d), (e)(2)–(4), (f)–(h).	Performance Testing Requirements	Yes.	
§ 63.7(e)(1)	Performance Testing	No	See §§ 63.7322(a), 63.7324(a), and 63.7325(a).
§ 63.7(a)(1)–(2)	Applicability and Performance Test Dates	No	Subpart CCCCC specifies applicability and dates.
§ 63.8(a)(1)–(3), (b), (c)(1)(ii), (c)(2)–(3), (c)(4)(i)–(ii), (c)(5)–(8), (d)(1)–(2), (e), (f)(1)–(5), (g)(1)–(4).	Monitoring Requirements	Yes	CMS requirements in § 63.8(c)(4) (i)–(ii), (c)(5), and (c)(6) apply only to COMS for battery stacks.
§ 63.8(c)(1)(i)	General Duty to Minimize Emissions and CMS Operation.	No.	
§ 63.8(c)(1)(iii)	Requirement to Develop SSM Plan for CMS	No.	
§ 63.8(a)(4)	Additional Monitoring Requirements for Control Devices in § 63.11.	No	Flares are not a control device for subpart CCCCC affected sources.
§ 63.8(c)(4)	Continuous Monitoring System (CMS) Requirements.	No	Subpart CCCCC specifies requirements for operation of CMS.
§ 63.8(d)(3)	Written procedures for CMS	No	See § 63.7342(b)(3).
§ 63.8(e)(4)–(5)	Performance Evaluations	Yes	Except COMS performance evaluation must be conducted before the compliance date.
§ 63.8(f)(6)	RATA Alternative	No	Subpart CCCCC does not require CEMS.
§ 63.8(g)(5)	Data Reduction	No	Subpart CCCCC specifies data that can't be used in computing averages for COMS.
§ 63.9	Notification Requirements	Yes	Additional notifications for CMS in § 63.9(g) apply only to COMS for battery stacks.

Citation	Subject	Applies to subpart CCCCC?	Explanation
§ 63.10(a), (b)(1), (b)(2)(vi)–(x), (b)(2)(xiv), (b)(3), (c)(1)–(6), (c)(9)–(14), (d)(1)–(4), (e)(1)–(2), (e)(4), (f).	Recordkeeping and Reporting Requirements.	Yes	Additional records for CMS in § 63.10(c)(1)–(6), (9)–(14), and reports in § 63.10(d)(1)–(2) apply only to COMS for battery stacks.
§ 63.10(b)(2)(i)	Recordkeeping of Occurrence and Duration of Startups and Shutdowns.	No.	
§ 63.10(b)(2)(ii)	Recordkeeping of Failures to Meet a Standard.	No	See § 63.7342(a)(2)–(4).
§ 63.10(b)(2)(iii)	Maintenance Records	Yes.	
§ 63.10(b)(2)(iv)	Actions Taken to Conform with SSM Plan	No	See § 63.7342(a)(4) for records of actions taken to minimize emissions.
§ 63.10(b)(2)(v)	Actions Taken to Minimize Emissions During SSM.	No	See § 63.7342(a)(4) for records of actions taken to minimize emissions.
§ 63.10(b)(2)(xi)–(xii)	CMS Records for RATA Alternative	No	Subpart CCCCC doesn't require CEMS.
§ 63.10(c)(7)–(8)	Records of Excess Emissions and Parameter Monitoring Exceedances for CMS.	No	Subpart CCCCC specifies record requirements.
§ 63.10(c)(15)	Use of SSM Plan	No.	
§ 63.10(d)(5)(i)	Periodic SSM Reports	No	See § 63.7341(c)(4) for malfunction reporting requirements.
§ 63.10(d)(5)(ii)	Immediate SSM Reports	No.	
§ 63.10(e)(3)	Excess Emission Reports	No	Subpart CCCCC specifies reporting requirements.
§ 63.11	Control Device Requirements	No	Subpart CCCCC does not require flares.
§ 63.12	State Authority and Delegations	Yes.	
§§ 63.13–63.16	Addresses, Incorporations by Reference, Availability of Information and Confidentiality, Performance Track Provisions.	Yes.	

[FR Doc. 2024–13186 Filed 7–3–24; 8:45 am]

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