

Air pollutants, hazardous; national emission standards: Coke oven batteries, 57898

Vol. 58 No. 206 Wednesday, October 27, 1993 p 57898 (Rule)

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ENVIRONMENTAL PROTECTION AGENCY

and 40 CFR Parts 963

[AD-FRL-4793-6]

RIN 2060-AD67

National Emission Standards for Hazardous Air Pollutants for Source Categories and for Coke Oven Batteries

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: On December 4, 1992 (57 FR 57534), the EPA proposed national emission standards for the control of emissions from new and existing coke oven batteries. This action promulgates the national emission standards and Methods 303 and 303A for the determination of visible emissions from by-product and nonrecovery coke oven batteries. These standards implement section 112 of the Clean Air Act (Act), which requires the Administrator to regulate emissions of hazardous air pollutants listed in section 112(b) of the Act, one of which is coke oven emissions. The final standards also implement section 112(d)(8) of the Act, which contains provisions specific to the regulation of coke oven emissions.

DATES: Effective Date: October 27, 1993.

See SUPPLEMENTARY INFORMATION section concerning Judicial Review.

ADDRESSES: Docket. A docket, number A-79-15, containing information considered during development of the promulgated standards, is available for public inspection between 8:30 a.m. and 3:30 p.m., Monday through Friday, at the EPA's Air Docket Section (LE-131), Waterside Mall, Room M1500, 1st Floor, Gallery 1, 401 M Street SW., Washington, DC 20460. A reasonable fee may be charged for copying.

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SUPPLEMENTARY INFORMATION:

I. The Standards

A. Background

The 1990 Amendments to the Clean Air Act establish specific requirements for the development of regulations governing coke oven emissions. Under section 112(d)(8), the EPA must promulgate standards based on maximum achievable control technology (MACT) for coke oven batteries by December 31, 1992. The MACT standards for existing sources can be no less stringent than the best performing 12 percent of existing sources, and standards for new sources cannot be less stringent than the limit achieved in practice by the best controlled existing source. In addition, the MACT standards for coke oven batteries must require, at a minimum, that coke oven emissions from each battery not exceed the following short-term limits: 8 percent leaking doors, 1 percent leaking topside port lids, 5 percent leaking offtake system(s), and 16 seconds of visible emissions per charge (with no exclusion for emissions during the period after the closing of self-sealing oven doors). In establishing the standards, the EPA must evaluate the use of luting compounds to prevent door leaks. (See section 112(d)(8)(A)(i).) The EPA also must evaluate use of Thompson nonrecovery coke oven batteries and other nonrecovery technologies as the basis of standards for new batteries. (See section 112(d)(8)(A)(ii).) The EPA is also to promulgate work practice regulations for new and existing coke oven batteries. These regulations are to require, as appropriate:

The use of sodium silicate (or equivalent) luting compounds if EPA determines that the use of sodium silicate is an effective means of emissions control and is achievable, taking into account costs and reasonable commercial warranties for doors and related equipment * * * and jamb cleaning practices. (See sections 112(d)(8)(B)(i) and 112(d)(8)(B)(ii).)

In addition to these technology-based standards, the EPA is required to promulgate standards to address the risk remaining after technology-based standards are imposed. The EPA is to issue these standards for coke oven batteries within 8 years of promulgation of the MACT standards. (See section 112(f)(2)(C).) This technology-based rulemaking does not depend on the risk analysis of the Regulatory Impact Analysis (RIA), and that analysis will be revisited before any risk-based standard rulemaking for coke oven emissions.

Existing coke oven batteries must comply with the MACT standards by December 31, 1995. (See section 112(d)(8)(A).) The compliance date for meeting residual risk standards is within 90 days of promulgation, which may be extended up to 2 years under certain circumstances. (See sections 112(f)(3)-(4).) However, the Act provides an extension of the residual risk standards for coke oven batteries until January 1, 2020, provided the owner or operator of a coke oven battery complies with technology-based standards on an accelerated basis and that these technology-based standards become more stringent over time.

Under the extension track, to receive the deferral of the compliance date until the year 2020, the owner or operator must achieve the following short-term emission limitations by November 15, 1993: (1) 16 seconds of visible emissions per charge, (2) 8 percent leaking coke oven doors, (3) 1

percent leaking topside port lids, and (4) 5 percent leaking offtake systems. In addition, by January 1, 1998, the battery must meet an emission limitation that reflects the lowest achievable emission rate (LAER), as defined in section 171 of the Act. The LAER regulations may be no less stringent than the following short-term limits: 3 percent leaking doors on batteries with doors less than 6 m in height (i.e., a “short” coke oven battery) and 5 percent leaking doors on batteries with doors 6 m or more in height (i.e., a “tall” coke oven battery), 1 percent leaking topside port lids, 4 percent leaking offtake systems, and 16 seconds of visible emissions per charge. (The Administrator may consider an exclusion for emissions from doors during the period after the closing of self-sealing doors or the total mass emissions equivalent.)

In the LAER rulemaking, the EPA must establish an appropriate measurement methodology for determining compliance for coke oven doors. The measurement methodology must consider alternative methods that reflect the best technology and practices actually applied in the affected industries and must ensure that the final test methods are consistent with the performance of such best technologies and practices. Section 112(i)(8) requires that, if the LAER standard is not promulgated by January 1, 1998, the following short-term limits must be achieved: (1) 3 percent leaking doors (for short coke oven batteries), (2) 5 percent leaking doors (for tall coke oven batteries), (3) 1 percent leaking topside port lids, (4) 4 percent leaking offtake system(s), and (5) 16 seconds of visible emissions per charge, or the total mass emissions equivalent, with no exclusions for emissions during the period after the closing of self-sealing doors. (See section 112(i)(8)(B)(ii).)

The EPA must review and revise the LAER standard, as necessary, by January 1, 2007. (See section 112(i)(8)(C).) To continue to qualify for the deferral of the compliance date for the residual risk standards, the owner or operator must meet any revised LAER limits by the year 2010. (See section 112(i)(8)(C).) The owner or operator also must make available to the surrounding community by January 1, 2000, the results of any risk assessment performed by the EPA to determine the appropriate level of a residual risk standard. (See section 112(i)(8)(E).)

Section 112(i)(8)(D) of the Act provides that, at any time prior to January 1, 1998, an owner or operator may elect to comply with residual risk standards under section 112(f) by the required date rather than comply with the LAER and revised LAER standards and compliance dates. Thus, coke oven batteries can opt out of the extension track. However, the owner or operator would be legally bound to comply with the 1995 MACT standards and the residual risk standards as of January 1, 2003. If EPA has not promulgated industry-wide residual risk standards by that time, the EPA must promulgate residual risk standards for those batteries that choose to meet residual risk standards by 2003.

B. Judicial Review

Under section 307(b)(1) of the Act, judicial review of national emission standards for a hazardous air pollutant (NESHAP) is available only by filing a petition for review in the U.S. Court of Appeals

for the District of Columbia Circuit within 60 days of today’s publication of this rule. Under section 307(b)(2) of the Act, the requirements that are the subject of today’s notice may not be challenged later in civil or criminal proceedings brought by the EPA to enforce these requirements.

C. Summary of Final Rule

Applicability. The final standards apply to all existing coke oven batteries, including by-product and nonrecovery coke oven batteries, and to all new coke oven batteries constructed on or after December 4, 1992. A “by-product coke oven battery” is defined as 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. In a “nonrecovery coke oven battery,” the coal undergoes destructive distillation under negative pressure to produce coke; the coke oven gas is combusted and by-products are not recovered. The list of operating coke oven batteries as of April 1, 1992, in appendix A to the rule, will be used to resolve any disputes that may arise concerning whether particular groups of ovens should be regarded as a single battery under these regulations.

Emission standards. The emission limitations included in the final rule for existing by-product coke oven batteries are shown in Table 1.

Table 1.-Emission Limits for Existing By-Product Batteries{ 1 }

Emission	MACT track limits		LAER extension track limits		
	12/31/95	01/01/03	11/15/93	01/01/98	01/01/10
Tall doors, PLD	6.0	5.5	7.0	4.3	4.0
Foundry doors, PLD	5.5	5.0	7.0	4.3	4.0
All other doors, PLD	5.5	5.0	7.0	3.8	3.3
Lids, PLL	0.6	0.6	0.83	0.4	0.4
Offtakes, PLO	3.0	3.0	4.2	2.5	2.5
Charging, s/charge	12	12	12	12	12

PLD = Percent leaking doors; PLL = Percent leaking lids;

PLO = Percent leaking offtakes.

{ 1 } The 11/15/93 numbers are the 30-run limits that are equivalent to the November 1993 extension track limits given in the Act, which are 3-run limits. The dates that are given in the table are the compliance dates for existing batteries.

The final standards require that, by December 31, 1995, coke oven emissions from each existing by-product

coke oven battery not exceed: (1) 5.5 percent leaking doors for short batteries and 6.0 percent leaking doors for tall batteries, (2) 0.6 percent leaking topside port lids, (3) 3.0 percent leaking offtake system(s), and (4) 12 seconds of visible emissions per charge. On and after January 1, 2003, leaking doors for tall by-product coke oven batteries are limited to 5.5 percent, and emissions from short batteries must decrease to 5.0 percent leaking doors. These 2003 standards are applicable unless more stringent residual risk-based standards are promulgated under section 112(f). Unless otherwise noted, compliance with visible emission standards is determined on a 30-observation rolling average basis.

Visible emission limitations for a new by-product coke oven battery constructed at a new coke plant (“greenfield” construction) and for a new battery constructed at an existing coke plant if it results in an increase in the plant’s coke capacity, are based on the emission control performance achieved by nonrecovery coke oven batteries, which are 0.0 percent leaking doors, topside port lids, and offtake system(s) and 34 seconds of visible emissions per charge.

The final standards also address by-product recovery batteries that may use a new technology in the future, such as larger ovens, operation under negative pressure, or a process with emission points different from those identified in this rule. After December 4, 1992, an owner or operator who constructs a new by-product coke oven battery or reconstructs a by-product coke oven battery and uses a new by-product recovery technology must apply for a case-by-case determination of applicable emission limitations. These case-by-case limits must be more stringent than 4.0 percent leaking doors for tall batteries, 3.3 percent leaking doors for short batteries, 0.4 percent leaking lids, 2.5 percent leaking offtakes, and 12 seconds per charge, or less than the equivalent level of mass emissions associated with these visible emission limits.

For door emissions from new and existing nonrecovery coke oven batteries, the NESHAP provides an option of either: (1) Meeting and recording an emission limitation of 0.0 percent leaking doors, or (2) monitoring and recording the pressure in each oven or common battery tunnel at least once each day to ensure that the ovens are operated under negative pressure. For charging on existing nonrecovery batteries, the owner or operator must implement specific work practices. New nonrecovery batteries must install, operate, and maintain an emission control system for the capture and control of charging emissions. If new nonrecovery batteries are constructed with lids or offtake systems, these batteries must meet limits of 0 percent leaking topside port lids and 0 percent leaking offtake system(s).

Standards for extension of compliance. As provided under section 112(i)(8) of the Act, the owner or operator of an existing coke oven battery may choose to comply with alternative emission standards to qualify for an extension of the compliance date for residual risk standards. By November 15, 1993, coke oven emissions from existing by-product coke oven batteries are not to exceed 7.0 percent leaking doors, 0.83 percent leaking topside port lids, 4.2 percent leaking offtake system(s), and 12 seconds of visible emissions per charge. For nonrecovery batteries seeking an extension of the compliance date for residual risk, the owner or operator must meet the MACT standards for nonrecovery batteries by November 15, 1993. No additional requirements are included in the rule for LAER for nonrecovery batteries.

The final standards incorporate a tiered approach for LAER for door leaks at existing by-product coke oven batteries on this compliance track and one set of limits for LAER for the other emission points. By January 1, 1998, emissions are to be limited to: (1) 4.3 percent leaking doors for tall batteries and batteries owned or operated by foundry coke producers, (2) 3.8 percent leaking doors for all other by-product coke oven batteries, (3) 0.4 percent leaking topside port lids, (4) 2.5 percent leaking offtakes, and (5) 12 seconds of visible emissions per charge. By January 1, 2010, emissions are to be reduced to 4.0 percent leaking doors

for tall batteries and batteries owned or operated by foundry coke producers, and to 3.3 percent leaking doors for all other by-product coke oven batteries, unless the Administrator has established a more stringent emission limitation under section 112(i)(8)(C). As an alternative to the LAER limits for percent leaking doors, the owner or operator of a coke oven battery with fewer than 30 ovens may comply with a 30-run average of two or fewer leaking coke oven doors per battery in lieu of the emission limitations to be achieved by 1998 and 2010.

The construction of a new battery at an existing plant without an increase in the plant's design capacity for coke production is termed a "brownfield" battery, and the complete reconstruction of a battery from the existing pad, without an increase in the plant's design capacity for coke, is called a "padup rebuild." Visible emissions from all brownfield or padup rebuild by-product coke oven batteries (except specific grandfathered batteries noted below) are limited to 3.3 percent leaking doors for short batteries, 4.0 percent leaking doors for tall batteries, 0.4 percent leaking topside port lids, 2.5 percent leaking offtake system(s), and 12 seconds of visible emissions per charge. If these grandfathered batteries do not commence construction by July 1, 1996, or 1 year after obtaining a construction permit (whichever is earlier), then they are subject to the more stringent LAER limits; otherwise, they are subject to the January 1, 1998, LAER limits. The batteries eligible to be rebuilt under this grandfather provision are Bethlehem Steel's Burns Harbor No. 2 battery, National Steel's Great Lakes No. 4 battery, and Koppers' Woodward No. 3 battery.

Under customary industry practice, a "padup rebuild" occurs when the existing brickwork of a battery is removed and a replacement battery is constructed on the old pad. Under the final rule, a "padup rebuild" includes any rebuilding project that effectively constitutes a replacement of the battery above the pad, even if some portion of the brickwork above the pad is retained (e.g., an end wall or several courses of bricks above the pad). Thus, a different test is applied than the traditional "reconstruction" test, which focuses on whether the source is substantially rebuilt. In other words, the term "padup rebuild" is not synonymous with the traditional term "reconstruction." However, any attempt to circumvent inappropriately the more stringent door leak requirement applicable to padup rebuilds will be found to constitute a padup rebuild. Accordingly, the rule provides the Administrator (or delegated State or local agency) the authority to determine whether a project is a "padup rebuild."

Batteries that were shut down but not dismantled ("cold-idle batteries") on or after November 15, 1990, can qualify for the extension track. Upon restarting, these batteries must meet the LAER limits for existing batteries and, if they are brownfield or padup rebuild batteries, they must meet the more stringent LAER requirements for these types of batteries. Batteries that were placed on cold idle prior to November 15, 1990, may also qualify for the extension track up to a total design capacity for coke of 2.7 million Mg/yr, which is based on 10 percent of the total coke capacity at the end of 1990. The EPA will process applications on a "first come-first served basis." The procedures include provisions under which an approval will lapse where a serious intention to use the capacity has not been demonstrated. If an approval lapses, the capacity of the battery is not included in the 2.7 million Mg/yr limit. After approval, the battery must meet the emission limits described above for other cold-idle batteries.

The rules also provide alternative door leak standards, to be developed on a case-by-case basis, for coke oven batteries equipped with sheds. (Sheds are enclosures attached to the side of a battery that capture emissions and route them to control devices.) Using the procedure described in the rule, the owner or operator may use an alternative emission limitation for door leaks from a new or existing coke oven battery equipped with a shed and emission control device. The alternative is expressed as the allowable percent leaking doors for doors that are controlled by the shed, an opacity limit for the control device, requirements to ensure that the

structural integrity of the shed is maintained, and requirements to ensure that the shed's evacuation rate is maintained. An alternative emission limit will be approved if it is shown that the alternative achieves a reduction in coke oven emissions from the doors equal to or greater than the emission reduction that would be achieved by door leak emission controls installed to meet the emission limitations in the final standards. The determination of equivalency is based on maintaining an equivalent or lower mass emission rate for coke oven emissions emitted from the shed's control device. Inspections for door leaks under the shed are to be performed by the applicable enforcement agency on a specified schedule (weekly or monthly).

Test methods and inspections. Each of the visible emission limitations is based on a 30-run average. To determine compliance, a daily (once a day for 7 days) performance test is to be conducted for each coke oven battery using Method 303, "Determination of Visible Emissions from By-product Coke Oven Batteries," or Method 303A, "Determination of Visible Emissions from Nonrecovery Coke Oven Batteries."

The procedures described in Method 303 require the observer to walk the topside center line of by-product coke oven batteries and count the number of topside port lids and offtake systems from which any visible emissions are observed. To record leaks in the collecting main, the observer is required to walk along the topside edge closest to the main and on the catwalk over the main. Methods 303 and 303A require the observer to count leaking coke oven doors on by-product and nonrecovery ovens as the observer traverses the coke oven battery at ground level.

Various situations may arise that prevent the observer from viewing a door or a series of doors. Prior to the door inspection, the owner or operator may temporarily suspend charging operations for the duration of the inspection so that all of the doors can be viewed by the inspector. Two options are included in the method for dealing with obstructions to view: (1) Stop the stopwatch and wait for the equipment to move or for the fugitive emissions to dissipate before completing the traverse, or (2) stop the stopwatch, skip the affected ovens, and move to a position to continue the traverse. If using the second option, the observer must return and inspect the affected ovens after completion of the traverse. If the equipment or fugitive emissions are still preventing the observer from viewing the doors, then the affected doors may be counted as not observed. If option 2 is used because of doors blocked by machines during charging operations, then, of the affected doors, the observer must exclude the door from the most recently charged oven from the inspection. The rule prohibits the owner or operator from deliberately blocking doors for the purpose of concealing door leaks during an inspection.

For each daily test, the observer must monitor and record five consecutive charges from each battery and conduct one valid and complete inspection of all doors, topside port lids, and offtake systems on each coke oven battery. The daily test results and the calculated 30-run average are provided to the owner or operator and the implementing agency by the observer. If the observer missed an observation for a day, no compliance determination is made for that day; calculation of the rolling 30-run average proceeds with the next valid observation made by the observer.

The inspection requirements for the alternative standard for sheds are different in that inspections are to be conducted once a week for safety reasons. If compliance with the alternative standard is achieved for 12 consecutive weeks, the inspection frequency decreases to monthly observations. If the limit is exceeded in any monthly inspection, the monitoring frequency increases to once a week. Because of the reduced inspection frequency, the alternative standard is not to be exceeded for any single observation and is not based on a 30-run rolling average.

Each performance test is to be conducted by a visible emission observer, certified according to the requirements of the test method and provided by the applicable enforcement agency at the company's expense. (The formula for payment of expenses included in the standard may be revised after a specified period to adjust the workload assumption, based on the enforcement agency's experience.) State agencies will be delegated authority to ensure that the inspections are conducted as required under the rule.

If a State is not delegated implementation authority or if a State is delegated implementation authority and the delegation has been revoked or withdrawn, or if the EPA has reassumed implementation authority under § 63.313(b), the regulation provides that the EPA will be the enforcement agency and the owner or operator will become responsible for contracting the required emissions inspections. A provision has been inserted in the regulation that requires the owner or operator of a battery for which the EPA is the enforcement agency to enter into a contract providing for the required inspections to be performed by a certified observer, at the expense of the owner or operator. This requirement would substitute for the requirement to pay the inspection fee. Such a contract must be in place within thirty (30) days of receipt by the owner or operator of notice from the Administrator that the EPA is the enforcement agency for the battery. The owner or operator may consult with the Agency concerning the terms of the contract and how it satisfies the requirements of the regulation. Language has also been inserted in the regulation providing that the inspection fee is to be paid on a quarterly basis, to provide an owner or operator some protection against having to enter into a subsequent inspection contract for a period of time for which an inspection fee has already been paid. While it is prudent to provide for the possibility of the EPA having to assume enforcement agency responsibilities, the Agency expects that it will rarely be required to do so. Agency policy is to delegate enforcement responsibilities under this regulation to the States; it fully expects that the States uniformly will undertake these enforcement responsibilities, and discharge them fully and adequately.

The certification requirements of Method 303 include a requirement to attend the lecture portion of the Method 9 training course, followed by classroom training, field inspections, and demonstration of proficiency in Method 303. Attendees of the course must certify that they have satisfied a 12 hour field observation requirement prior to attending the Method 303 certification course. A videotape explaining Method 303 will be made available to interested parties. This Method 303 training course will be conducted by or under the sanction of the EPA, and the field training will include instruction from experienced observers.

Observer proficiency will be demonstrated during actual visible emission tests to the satisfaction of a panel of three experienced and certified observers. However, until November 15, 1994, the EPA may waive the certification requirement (but not the experience requirement) for panel members. The panel members will be EPA, State, or local agency personnel who are designated by the EPA as certified and qualified panel members or private contractors approved by the Administrator. If the Administrator deems it necessary, the EPA will publish a list of qualified panel members in a separate notice.

Work practices. The work practice standards require the owner or operator of an existing or new coke oven battery to develop a written plan describing emission control work practices to be implemented for each battery. The plan, required by November 15, 1993, must include provisions for training and procedures for controlling emissions from coke oven doors, charging operations, topside port lids, and offtake system(s) on by-product coke oven batteries. Similar requirements are included for work practices at nonrecovery batteries for door leaks and charging emissions. Under specified conditions, the EPA may require revisions to the plan or the inclusion of additional work practices or requirements. The EPA expects work practice plans prepared for this rule and for OSHA requirements to be compatible and that the affected facility will comply with both requirements.

For coke oven batteries subject to visible emission limitations under the NESHAP on November 15, 1993 (i.e., extension track batteries), the work practice requirements become applicable following the second independent exceedance of the visible emission limitation for a particular emission point in any consecutive 6-month period. The second exceedance is independent if it is separated from the first by at least 30 days or if the 29-run average, calculated after deleting the highest observation in the 30-day period, still exceeds the applicable emission limit. A similar procedure is used to calculate independence in the case of charging emissions, under which the rolling logarithmic average is recomputed, excluding the daily set of observations with the highest daily arithmetic average. The owner or operator is required to implement the work practice requirements applicable to the emission point by no later than 3 days after written notification of the exceedance. The rule requires that the work practices be implemented each day until the visible emission limitation for the emission point is achieved for 90 consecutive days.

The owner or operator of a coke oven battery not subject to visible emission limitations under the NESHAP until December 31, 1995 (i.e., a battery not on the extension track), is required to implement the provisions of the work practice plan for a particular emission point subject to visible emission limitations under these NESHAP (i.e., coke oven doors, topside port lids, offtake system(s), and charging operations) following the second exceedance of a federally enforceable State or local ordinance, regulation, order, or agreement for that emission point. The standards require that the work practice provisions be implemented within 3 days of receipt of written notification from the applicable enforcement agency and continued until compliance with the visible emission limitation is achieved for 90 days from the last exceedance.

For coke oven batteries with an approved alternative standard for sheds, work practices for doors under the shed must be implemented based on exceedances of the alternative standard for percent leaking doors under the shed. If one side of the coke oven battery does not have a shed, work practices for coke oven doors must be implemented based on exceedances of the applicable emission limitation for that side of the battery.

The Administrator may require revisions to the work practice plan for a particular emission point if there are two independent exceedances in the 6-month period starting 30 days after the work practices are required to be implemented. The owner or operator must notify the Administrator of any finding that the work practices are not related to the cause or the solution of the problem within 10 days of receiving a notification from the enforcement agency concerning the second independent exceedance. The Administrator may disapprove a revision or a statement that a revision is not needed. No more than two revisions per year may be requested; however, a revision in response to a disapproval of a revision, voluntary revisions, and statements that a revision is not needed do not count toward this limit.

Flares. The standards also require the installation, operation, and maintenance of a flare system (or equivalently effective alternative control device or system) by March 31, 1994, for the bypass/bleeder stacks of each existing by-product coke oven battery in operation as of December 31, 1995, that is capable of combusting 120 percent of the normal gas flow generated by the battery. New batteries must meet the flare requirements when production operations start.

The flare system must be designed to meet the EPA flare specifications in 40 CFR 60.18 (New Source Performance Standards), with certain modifications to take into account the special characteristics of the gas stream. For example, the specification for net heating values in 40 CFR 60.18(c)(3) is revised under the rule to establish a design specification for the net heating value of coke oven emissions for steam-assisted or air-assisted flares of 8.9 MJ/scm (240 Btu/scf) or greater. Installation of the flare will not constitute a physical or operational change for the purposes of determining the applicability of new source review requirements.

To qualify for an exemption from the flare installation requirement, the owner or operator must submit a formal commitment to permanent closure of the battery by no later than 2 weeks from today's publication of the final rule. In no case may a battery for which the owner or operator has submitted such a closure notification operate past December 31, 1995.

Questions arose after proposal about the intent of the provision in § 63.307(b)(3)(ii) of the rule, which requires that ignition units be designed failsafe with respect to the flame detection thermocouples. A clarifying sentence was added to the rule to explain the intent of this provision. The intent was that the flame detection thermocouples are used only to indicate the presence of a flame and are not interlocked with the ignition units. Consequently, the flame detection thermocouples do not affect the operation of the ignition unit. In the event that the thermocouples fail and indicate the presence of a flame when one does not exist, the ignition unit is not deactivated and would continue to ignite any bypassed gas.

Collecting main. The collecting main is to be inspected for leaks at least once daily under the final standards. Any leaks detected must be temporarily sealed within 4 hours; a permanent repair must be initiated within 5 calendar days of detection and completed within 15 calendar days of detection unless extended by the Administrator. The time and date of collecting main leaks, temporary sealing, and repair also must be recorded.

Startups, shutdowns, and malfunctions. These provisions require the owner or operator to develop a written startup, shutdown, and malfunction plan that provides for the operation of the source in accordance with good air pollution control practices for minimizing emissions, and for procedures for correcting the malfunction as quickly as practicable. Associated reporting and recordkeeping provisions also are included.

Reporting and recordkeeping requirements. The regulation would require that certain records be maintained and the following reports be submitted: compliance certifications, notifications, and reports of uncontrolled venting episodes and certain startups, shutdowns, and malfunctions.

For each 6-month period following today's publication of the rule, the owner or operator is required to submit a semiannual compliance certification attesting that: (1) No coke oven gas was vented through the bypass/bleeder stack; (2) coke oven gas was vented through the bypass/bleeder flare system, which operated properly; or (3) a venting report was submitted because of problems with the bypass/bleeder flare system. Semiannual compliance certifications are also required to attest that: (1) No startup, shutdown, or malfunction event occurred, or such an event did occur and a report was provided as required; and (2) work practices were implemented according to the work practice provisions, if applicable.

The notification provisions include requirements for owners or operators to notify the Administrator of the compliance track election that has been made for each battery. In general, these provisions allow batteries to "straddle" (i.e., elect both tracks) up until 1998, when a binding commitment to one compliance track or the other must be made.

The recordkeeping provisions require owners or operators to keep specified records and make them accessible to the Administrator. These include certain monitoring records, records reflecting the implementation of work practice plan provisions, and records related to a startup, shutdown, or malfunction. Records also are to be maintained of data for the alternative emission standard for doors, including opacity data for the shed's control device, parameters that indicate that the evacuation rate is maintained, records of visual inspections, and operation/maintenance records for a continuous opacity monitoring system. For nonrecovery batteries,

records are required of daily pressure monitoring and work practices for charging or, for new nonrecovery batteries, of design information for the charging emission control system. In addition, design information for flares or approved alternative control devices or systems must be maintained.

Provisions are also included requiring the owner or operator to make records or reports required to be maintained or required to be submitted to the enforcement agency available to the authorized collective bargaining representative for inspection and copying. The owner or operator must respond to a request within a reasonable period of time. Except for emission data as defined in 40 CFR Part 2, documents (or parts of documents) containing trade secrets or confidential business information do not have to be produced, and the inspection or copying of documents will not affect any intellectual property rights of the owner or operator in the documents.

Relationship to existing regulations and requirements. Provisions also are included in the NESHAP that require the owner or operator to comply with all applicable State implementation plan (SIP) emission limitations (or subject to any expiration date, federally enforceable emission limitations contained in an order, decree, permit or settlement agreement) for the control of emissions from charging operations, topside port lids, offtake system(s), and coke oven doors in effect on September 15, 1992. Any change to these existing regulations must ensure that the applicable emission limitations and format in effect on September 15, 1992, will continue in effect; that the change includes a more stringent monitoring method and that no emission increase will occur; or that such modification makes the emission limitations more stringent while holding the format unchanged, makes the format more stringent while holding the emission limitations unchanged, or makes both more stringent. A provision also is included that addresses the relationship of the coke oven NESHAP to section 112(g) and that concludes that section 112(g) requirements will not apply to sources subject to the coke oven NESHAP.

II. Summary of Environmental, Cost, and Economic Impacts

No comments were received regarding the environmental, cost, and economic impact analyses presented for the proposed NESHAP, and no changes to the analyses have been made for the final rule. However, the list of operating batteries in appendix A to the rule has been revised to include the nonrecovery batteries. Additional information on the estimated environmental, cost, and economic impacts is included in the notice of proposed rulemaking (57 FR 57556, December 4, 1992) and the docket.

Implementation of the MACT standard is expected to reduce nationwide coke oven emissions from charging and leaks by the end of 1995 by about 80 percent to 160 Mg/yr, and emissions from bypass/bleeder stacks will be reduced by at least 98 percent to no more than 17 Mg/yr. Implementation of the LAER standard is expected to reduce nationwide coke oven emissions by the beginning of 1998 by 90 percent to about 80 Mg/yr. After the implementation of LAER and the installation of flares on bypass/bleeder stacks, the overall reduction in coke oven emissions is estimated at 94 percent. Because the control techniques focus on pollution prevention and containment within the by-product collection system, similar reductions in emissions are expected for both organic particulate matter and for the volatile organic compounds and other pollutants contained in coke oven emissions for the sources controlled under these standards.

The MACT standards for existing batteries are expected to be achieved without rebuilding the battery using improved equipment and increased maintenance, training, and inspections. The total nationwide capital cost of MACT for existing batteries is estimated at \$66 million with a total annual cost of \$25 million per year. Many batteries are currently achieving the MACT levels and would not incur any significant increase in costs.

The MACT standard is expected to increase the price of furnace coke by 0.2 percent and the price of foundry coke by 1.1 percent. Coke production is projected to decrease by 0.7 percent for furnace coke and 1.1 percent for foundry coke. No coke batteries are projected to close as a result of the MACT standard.

The LAER standards may require the installation of new doors and jambs or the rebuilding of some of the older batteries. Assuming that all batteries will elect to meet the LAER standards, the total nationwide capital cost is estimated to be \$510 million with a total annualized cost of \$84 million. Both of these costs are cumulative in that they include the costs associated with MACT. The proposed LAER standard is projected to increase the price of furnace coke by 0.7 percent and foundry coke by 2.5 percent. Furnace coke production is estimated to decrease by 2.1 percent and foundry coke production to decrease by 2.6 percent. Two coke oven batteries producing furnace coke are projected to close and one coke oven battery producing foundry coke may close as a result of the LAER standard.

III. Public Participation

The EPA recognized the need for Federal regulation of coke oven emissions and the many issues and challenges posed in developing, proposing, and promulgating standards to meet the requirements of the Act. During the spring and summer of 1991, the EPA met with representatives of the industry, labor unions, States, and environmental groups to discuss available data to be used as the basis of the new regulations. A workshop format was used to explore and clarify the varying viewpoints. Following these informal discussions, the EPA announced its intention to establish a committee to negotiate a new approach for the control of coke oven emissions (57 FR 1730, January 15, 1992) and conducted formal meetings and informal workshops over the next several months to identify and resolve the many issues associated with the regulation of coke oven emissions (57 FR 4025, February 3, 1992; 57 FR 5267, February 13, 1992; 57 FR 6830, February 28, 1992; 57 FR 19295, May 5, 1992). The Committee members are listed in Table 2.

Table 2.-Coke Oven Batteries Advisory Committee Membership

Members	Affiliation
David Anderson	Bethelehem Steel Corporation
William Becker	State and Territorial Air Pollution Program Administrators/Association of Local Air Pollution Control Officials
Larry Davis	Hoosier Environmental Council
David Donigar	Natural Resources Defense Council
Charles Drevna	Sun Coal Company
Martin Dusel	Citizens Gas & Coke Utility
Charles Goetz	Allegheny County Health Department
Ralph Hall/Steve Lang	Maryland Department of the Environment
Phillip Harter	Facilitator
Bruce Jordan	Environmental Protection Agency
Ward Kelsey	Pennsylvania Department of Environmental Resources
Charles Knaus	Swidler & Berlin (representing the American Iron and Steel Institute)
Phillip Masciantonio	USS, A Division of USX Corporation
Robert McNelis	Citizens Organized to Keep Employment
David Menotti	Perkins Cole (representing the American Coke and Coal Chemicals Institute)
Tom Rarick	Indiana Department of Environmental Management
John Seltz	Environmental Protection Agency
Michael Shapiro	Environmental Protection Agency
John Sheehan	United Steelworkers of America
Bruce Steiner	American Iron and Steel Institute
John Stinson	National Steel Corporation
Shirley Virostek	Group Against Smog and Pollution
Michael Wright	United Steelworkers of America

Using various forums, the Committee discussed many challenging issues, including the emission data to be used to select a standard, potential regulatory formats and numerical emission limits, visible emission

monitoring methods, costs and economics, other emission sources, and work practices. Associated issues such as enforcement and implementation needs, legal aspects, future research, and integration of the proposed rule with EPA's new permitting system also were identified and discussed.

Several of the Committee meetings were attended by representatives of local citizens groups and members of unions representing the workers at several coke plants. The union representatives made useful presentations to the Committee on several issues.

At the final negotiating session, the major issues were resolved conceptually. Thereafter, the Committee reviewed drafts of the regulatory language and the preamble, resolved remaining issues, and signed a formal agreement on October 28, 1992. The Committee members have agreed to support the standard as long as EPA promulgates a regulation and preamble with the same substance and effect of the regulation and preamble that were the subject of the final agreement.

It is important to note that the parties to the negotiation concurred with the regulation and preamble when considered as a whole. The parties did not attempt to agree on the accuracy or conclusions reached in various docket items (e.g., Regulatory Impacts Analysis). However, some of these documents served as background information to assist the parties in achieving a consensus. Inevitably in any negotiation, this means that some parties may have made concessions in one area in exchange for concessions from other parties in other areas.

Interested parties also were advised by public notice in the Federal Register (57 FR 46854, October 13, 1992) of a meeting of the National Air Pollution Control Techniques Advisory Committee (NAPCTAC) to discuss the status of the NESHAP recommended for proposal. (See Docket Item VIII-J-7.) This meeting was held on November 18, 1992. The meeting was open to the public and each attendee was given an opportunity to comment on the standards recommended for proposal.

The standards were proposed in the Federal Register on December 4, 1992 (57 FR 57534). Public comments were solicited at the time of proposal, and copies of the proposed rule were distributed to interested parties. (See Docket Item X-C-1.)

To provide interested persons the opportunity for oral presentation of data, views, or arguments concerning the proposed standards, a public hearing was held on January 15, 1993, in Philadelphia, Pennsylvania. A total of 11 interested parties testified at the public hearing concerning issues relative to the proposed national emission standards for coke oven batteries. This hearing was open to the public, and each attendee was given an opportunity to comment on the proposed standards. (See Docket Item X-G-1.)

The public comment period was from December 10, 1992 to January 22, 1993. The record was held open for an additional 30 days to receive additional comments in support of, or in rebuttal to, the testimony presented at the hearing.

IV. Response to Public Comments

A total of 62 comment letters were received regarding the proposed standards. Commenters included one engineering firm, one trade association, one Federal agency, one State health agency, representatives of environmental groups in Pennsylvania, and Pennsylvania citizens who reside near the Clairton Works, the Nation's largest coke plant. A copy of each comment received is included in the rulemaking docket. A list of commenters, their affiliations, and the EPA docket number assigned to their correspondence is given in

Table 3.

Table 3.-List of Commenters on Proposed National Emission Standards for Coke Oven Batteries

Docket Item Number	Commenter and affiliation
X-D-1	Jonathan P. Deason, Director, Office of Environmental Affairs, U.S. Department of the Interior, Washington, DC 20240.
X-D-2	Shirley Virostek, 1444 Washington Boulevard, Port Vue, PA 15133.
X-D-3	Janet Strahosky, Ohio River Basin Environmental Council, Post Office Box 41135, Pittsburgh, PA 15202.
X-D-4	Rosemary K. Coffey, 916 Bellefonte Street, Pittsburgh, PA 15232-2204.
X-D-5	Phillip J. Molé, Sun Eco Systems, Inc., 7949 West Country Club Lane, Elmwood Park, IL 60635.
X-D-6	Nancy F. Parks, Sierra Club, Pennsylvania Chapter, 201 West Aaron Square, Post Office Box 120, Aaronsburg, PA 16820-0120.
X-D-7	Marilyn Skolnick, Sierra Club-The Allegheny Group, 109 South Ridge Drive, Monroeville, PA 15146.
X-D-8	Robert P. DeTorre, 1500 Monongahela Boulevard, White Oak, PA 15131.
X-D-9	Marilyn Skolnick, Sierra Club-The Allegheny Group, 109 South Ridge Drive, Monroeville, PA 15146.
X-D-10	Richard Lawson, President, National Coal Association, 1130 17th Street, NW, Washington, DC 20036-4677.
X-D-11	Marie Kocoshis, Group Against Smog and Pollution, Post Office Box 5165, Pittsburgh, PA 15206
X-D-12	Butch Allen, Jefferson County Department of Health, Birmingham, AL 35233.
X-D-13	Shirley Schultz, 111 Camino Court, Jefferson Borough, Clairton, PA 15025.
X-D-14	Hugh D. Young, 5746 Aylesboro Avenue, Pittsburgh, PA 15217.
X-D-15	Milton Deaner, American Iron and Steel Institute. Mark T. Engle, American Coke and Coal Chemicals Institute. David Doniger, Natural Resources Defense Council. S. William Becker, State and Territorial Air Pollution Program Administrators/Association of Local Air Pollution Officials. John J. Sheehan, United Steel Workers of America.
X-D-16	Marie Kocoshis, President, Group Against Smog and Pollution, Post Office Box 5165, Pittsburgh, PA 15206.
X-D-17	Barbara D. Hays, 1421 Wightman Street, Pittsburgh, PA 15217.
X-D-18	Lawrence Stavish, 120 Bronx Avenue, Pittsburgh, PA 15229.
X-D-19	Judith Stack, 6408 Kentucky Avenue, Pittsburgh, PA 15206.
X-D-20	Gail Gregory.
X-D-21	Nicholas Kyriazi, 517 Avery Street, Pittsburgh, PA 15212.
X-D-22	Diane Doyle, President, League of Women Voters-Allegheny County Council, Community Information Center, YWCA Fourth and Wood Street, Pittsburgh, PA 15222.
X-D-23	Elissa M. Weiss, MD, 134 Dennis Drive, Glenshaw, PA 15116.

- X-D-24 Suzanne M. Broughton, Director, North Area Environmental Council, 2377 Jenkinson Drive, Pittsburgh, PA 15237.
- X-D-25 Mary Edmonds, 1116 Herberton Street, Pittsburgh, PA 15206.
- X-D-26 Marvin L. Bellin, MD, Clinical Assistant Professor of Psychiatry, University of Pittsburgh Medical Center, 3811 O'Hara Street, Pittsburgh, PA 15213-2593.
- X-D-27 Barbara Adler, 6019 Wellesley Avenue, Pittsburgh, PA 15206.
- X-D-28 Linda Innocenti.
- X-D-29 Louis B. Freeman, 388 Cavan Drive, Pittsburgh, PA 15236.
- X-D-30 Matthew R. Brunner.
- X-D-31 John Hummel, Upper Allegheny Preservation Association, Post Office Box 207, Kennerdell, PA 16374.
- X-D-32 Timothy L. Cimino, 5135 Dearborn Street, Pittsburgh, PA 15224-2432.
- X-D-33 Terri Polesky.
- X-D-34 Harry Coligure, GWC Building, Apartment 712, Clairton, PA 15025-1754.
- X-D-35 Samuel Hays, Chair, Conservation Committee, Sierra Club, Allegheny Group, 1421 Wightman Street, Pittsburgh, PA 15217.
- X-D-36 Robert DeTorre, Group Against Smog and Pollution, 1500 Monongahela Boulevard, White Oak, PA 15131.
- X-D-37 Shirley Virostek, Group Against Smog and Pollution, 1444 Washington Boulevard, Port Vue, PA 15133.
- X-D-38 Janet Strahosky, Ohio River Basin Environmental Council, Post Office Box 41135, Pittsburgh, PA 15202.
- X-D-39 Dennis Winters, Sierra Club, Eastern Pennsylvania Group, 619 Catharine Street, 3rd Floor, Philadelphia, PA 19147.
- X-D-40 Sam Spofforth, Clean Water Action, 35 North 8th Street, Allentown, PA 18102.
- X-D-41 Sara Nichols, Staff Attorney, Delaware Valley Citizen's Council for Clean Air, 311 Juniper Street, Room 603, Philadelphia, PA 19107.
- X-D-42 Marie Kocoshis, President, Group Against Smog and Pollution, Post Office Box 5165, Pittsburgh, PA 15206.
- X-D-43 Butch Allen, Jefferson County Department of Health, Birmingham, AL 35233.
- X-D-44 Elenore Seidenberg, 220 North Dithridge Street, Number 301, Pittsburgh, PA 15213.
- X-D-45 Donna Foljione, 307 Burlington Road, Pittsburgh, PA 15221.
- X-D-46 Professor W. W. Mullins, Department of Metallurgical Engineering and Materials Science, Carnegie-Mellon University, 8309 Wean Hall, Pittsburgh, PA 15213.
- X-D-47 Ms. Jonni Kay Pielin, 121 Kollar Drive, McKeesport, PA 15133.
- X-D-48 Joanne R. Denworth, President, Pennsylvania Environmental Council, Benedum Trees Building, 223 4th Avenue, Suite 503, Pittsburgh, PA 15222.
- X-D-49 David Jasnow, 5649 Marlborough Road, Pittsburgh, PA 15217.
- X-D-50 Betsy Ensminger, 4118 Winterburn Avenue, Pittsburgh, PA 15207.
- X-D-51 Maryann Hodzic, 2421 Pin Oak Place, Pittsburgh, PA 15220.

- X-D-52 Suzanne Bailey, 1112 Greenfield Avenue, Pittsburgh, PA 15217.
- X-D-53 Patricia B. Pelkofer, 252 South Winebiddle Street, Pittsburgh, PA 15224.
- X-D-54 Peggy Allen Hiedish, 531 Allenby Avenue, Pittsburgh, PA 15218.
- X-D-55 Jim Lampl, 607 Cherokee Street, Irwin, PA 15642.
- X-D-56 R. Joseph Weinzapfel, 5-G Jenny Lynn Court, Pittsburgh, PA 15239.
- X-D-57 Mary Burlando, 241 Silver Oak Drive, Pittsburgh, PA 15220.
- X-D-58 Mary S. Kostalos, Chatham College, Woodland Road, Pittsburgh PA 15232-2826.
- X-D-59 Mr. and Mrs. Louis E. Eback, Kingston Apartments, Number 609, Pittsburgh, PA 15202.
- X-D-60 Dr. Maryann Donovan-Peluso, 643 East End Avenue, Pittsburgh, PA 15221.
- X-D-61 Cindy J. Corbett, 5703 Jackson Street, Number 2, Pittsburgh, PA 15206.
- X-D-63 Nancy F. Parks, Sierra Club, Pennsylvania Chapter, 201 West Aaron Square, Post Office Box 120, Aaronsburg, PA 16820-0120.

{ 1 } The docket number for this rulemaking is A-79-15. Dockets are on file at the EPA's Air Docket Section, Waterside Mall, room 1500, 1st Floor, 401 M Street, SW., Washington, DC 20460. Most of the comment letters contained multiple comments, which have been organized and addressed under the following general topics: General, Test Methods and Monitoring, Reporting and Recordkeeping, and Miscellaneous. These comments have been carefully considered, and, where determined to be appropriate by the Administrator, changes have been made in the final standards. A summary of the comments and the Agency's responses is given below.

A. General

Comment: A total of 57 environmental groups and local citizens comment that the proposed standards are too weak; 35 of these commenters specifically argue that the rule does not provide any incentive for improvement from the 19 batteries in Allegheny County, Pennsylvania, where stronger regulatory controls are already in practice (commenters X-D-2, X-D-3, X-D-4, X-D-9, X-D-13, X-D-14, X-D-16, X-D-17, X-D-18, X-D-19, X-D-20, X-D-21, X-D-22, X-D-23, X-D-25, X-D-27, X-D-28, X-D-29, X-D-31, X-D-32, X-D-33, X-D-40, X-D-41, X-D-42, X-D-44, X-D-45, X-D-46, X-D-47, X-D-49, X-D-50, X-D-52, X-D-58, X-D-60, X-D-61, and X-D-63).

Response: The EPA agrees that some of the batteries in Allegheny County have achieved exemplary levels of emission control performance, especially five batteries that are either new or recently rebuilt and are subject to some of the most stringent emission limits in the Nation. Performance data that were collected as a part of Allegheny County's regulatory program played a major role in the development of the emission limits in the rule. In addition, coke oven batteries in Allegheny County pioneered the widespread installation of controls for emissions from bypass/bleeder stacks, for which controls have been included as a provision in the rule.

Consequently, other coke oven batteries in the United States will obtain significant emission reductions as they achieve the control levels demonstrated by the best performing batteries in Allegheny County. However, the EPA does not agree that the NESHAP will not result in additional improvement in emission control for

the Allegheny County batteries. The format of the rule requires step-wise improvements in emission control over time (e.g., compliance with the most stringent limits for batteries on the extension track is required by January 1, 2010). Although the November 1993 limits, which were specified in the Clean Air Act for batteries on the extension track, will result in only a marginal improvement in control for batteries in Allegheny County, the step-wise increase in stringency will require all of the coke oven batteries in the County to improve their performance to comply with the LAER emission limits. As the standards increase in stringency over time, the emission control performance of most of the batteries in the County must improve to maintain compliance. For example, 12 of the 19 batteries must improve door leak control to meet the 2003 MACT limits for percent leaking doors (based on 1990 data). To meet the extension track limits in 2010, a total of 18 of the 19 batteries must improve door leak control.

The EPA examined emission control performance data for the USS-Clairton batteries separately and for all of the Allegheny County batteries collectively when they were operating at normal capacity in 1989 and 1990. The data for percent leaking doors, percent leaking topside port lids, percent leaking offtake system(s), and seconds of visible emissions per charge showed that if the 12 USS-Clairton batteries were placed on the extension track, emissions at their current level of performance would be reduced by 65 percent by 1998 and 70 percent by 2010. If these batteries are placed on the MACT track, current emissions would be reduced by 40 percent by 1995. If all 19 batteries at the 3 coke plants in Allegheny County are considered, emissions at their current level of performance would be reduced on the extension track by 70 percent in 1998 and by 75 percent in 2010. If these batteries are placed on the MACT track, emissions would be reduced by 50 percent in 1995. (See Docket Item X-B-1.)

As a consequence of the staged reduction in coke oven emissions, the exposure of residents to these emissions will also decrease. In addition, the 1990 Amendments to the Act specifically address citizen exposure by requiring the EPA to address the risk remaining after technology-based standards are imposed. The EPA is to issue these standards within 8 years of promulgation of the MACT standards.

Comment: Two commenters (X-D-2 and X-D-49) fear that coke plants in Allegheny County will “backslide” from existing control requirements (i.e., that the NESHAP may replace or “water down” regulatory controls already in practice). In support, one commenter submits that the long-term average performance at Clairton Coke of 4.3 percent leaking doors compared to the statutory long-term average performance of 5.8 percent leaking doors will result in relaxation of local standards.

Response: Provisions are included in the rule to prevent this situation. As discussed in the preamble at 57 FR 57544 (and stated in § 63.312 of the regulation), a SIP cannot be revised to be less stringent than it was prior to September 15, 1992. The coke oven batteries in Allegheny County will remain subject to any applicable State or local regulations in addition to this rule. Thus, the final standards will supplement and not weaken any regulatory controls now in place. The specific example of a long-term average of 5.8 percent leaking doors refers to the November 1993 limits specified in the Act and not to the more stringent emission limits developed by the Coke Oven Battery Advisory Committee that must be met at staged intervals (starting in December 1995 for MACT and extending through January 2010 for LAER). The emission limits developed by the Committee will require long-term performance levels below 5.8 percent leaking doors.

Comment: Local environmental groups and citizens residing near the Clairton facility do not agree with the scope of control under the proposed rule. According to commenters X-D-3, X-D-8, and X-D-42, controls are warranted for quenching, combustion stacks, pushing, and decarbonization. Combustion stacks, pushing, and decarbonization operations are also substantial sources of particulate matter warranting control, particularly

in a PM-10 (particulate matter less than 10 microns in diameter) nonattainment area (commenters X-D-2, X-D-3, X-D-39, X-D-41, X-D-42, and X-D-53). Emissions of PM-10 are of great concern to the commenters because these aerosols can be contaminated with toxins and inhaled into the lungs.

Response: The EPA believes that the emission points subject to the rule are the major sources of the listed hazardous air pollutant “coke oven emissions” associated with a well-maintained and properly operated coke oven battery. The controls and work practice requirements included in the rule will provide concurrent control of many air toxics and hazardous pollutants included in the coke oven emissions from batteries or bypass/bleeder stacks. As discussed in the preamble, toxic or hazardous air pollutants (organics, metals, and particulate matter) can also be emitted from other sources such as quenching, pushing, combustion stacks, and decarbonization operations. In many cases, these emission points are subject to existing State or local regulations and consent decrees. New Federal regulations affecting air emissions from other emission sources in the plant also are now being implemented (e.g., NESHAP for by-product plants and benzene waste operations), which will result in emission reductions for benzene (and other hazardous pollutants) and volatile organic compounds. In addition, the EPA plans to collect information on emissions and emission control technologies for air emission sources associated with ferrous manufacturing and will develop MACT standards for them prior to the year 2000. The ferrous manufacturing source categories will include: (1) Review of the existing NESHAP for coke by-product recovery plants; (2) pushing, quenching, and battery stacks; (3) ferroalloys production; (4) integrated iron and steel manufacturing; (5) nonstainless steel manufacturing; (6) stainless steel manufacturing; (6) iron foundries; (7) steel foundries; and (8) steel pickling-HCl process. (See Docket Items VIII-J-6 and X-I-1.) Although the EPA understands and sympathizes with the commenters’ desire for immediate further regulation of all emission points at these facilities, Congress did not mandate immediate controls for the emission points mentioned in their comments, and the EPA is not precluded from adopting regulations one step at a time.

Comment: Local environmental groups and citizens point to the high levels of unregulated toxic and hazardous pollutants emitted from the coke plants in Allegheny County. According to Commenter X-D-42, State legislation will not allow more stringent controls on coke ovens than those required under the 1990 Amendments. In addition, coke plants in the Pittsburgh area are located in heavily industrialized river valleys that are prone to air inversions (commenters X-D-3, X-D-38, X-D-47, X-D-48, X-D-49, X-D-55, X-D-57, X-D-60, and X-D-63). The commenters ask that additional consideration be given to Allegheny County, which has the largest coke plant in the country, the largest concentration of coke oven batteries, and possibly the highest level of citizen exposure. They ask for the development of special standards specific to Allegheny County, a special health study, or for national standards that are geared to local communities where pollution exposure is particularly bad due to meteorology, clusters of facilities, local terrain, size of the facility, and/or total emissions from the facility (commenters X-D-35, X-D-36, X-D-38, X-D-41, X-D-42, X-D-53, X-D-58, X-D-61, and X-D-63). Commenter X-D-18 also suggested innovative approaches such as: (1) Fostering pollution prevention by including incentives for plants to invest in technology to reduce the volume of pollutants generated during the production process, (2) providing tax incentives for pollution reduction or research and development, (3) using money from fines to fund research and development of new technologies and methods, and (4) performing an international study on coke oven pollution control so new developments can be incorporated in the plant.

Response: The provisions in the Act with respect to coke ovens require the development of a technology-based standard to be followed by the development of a residual risk standard at a later date. The EPA certainly has acted reasonably in developing rules consistent with this approach. The opportunity for special provisions for Allegheny County, or any other location that may have high exposure levels and high

risk, will be available under the risk standard. The final standards are technology-based and are applied uniformly to all coke plants in the United States. These coke plants all use the same cokemaking process and the same emission control technology applies to each of them; consequently, there was no basis for a special subcategorization for batteries in Allegheny County. However, the risk standard to be developed must address the site-specific nature of any high levels of residual risk that might remain after today's final standards are implemented.

The EPA is also interested in innovative approaches, and there are continuing and emerging efforts in this area. The EPA has identified and investigated the merits of new technology (including form cokemaking and, more recently, the Jewell nonrecovery process) and attempts to stay informed of any new foreign developments, especially by coke oven batteries in Great Britain, Germany, and Japan. Studies of new technologies are planned in an effort administered jointly by the U.S. Department of Energy and the EPA as required under the Act. (See Docket Item VIII-I-1.) Consequently, many of the commenter's suggestions are now being evaluated through funding of research and development programs to improve coke oven emission control technology.

Comment: A total of 42 commenters, consisting of local environmental groups and Allegheny County residents, argue that the standards are not adequate to protect public health (commenters X-D-2, X-D-3, X-D-4, X-D-13, X-D-14, X-D-16, X-D-17, X-D-18, X-D-20, X-D-21, X-D-22, X-D-23, X-D-26, X-D-27, X-D-29, X-D-30, X-D-33, X-D-34, X-D-35, X-D-36, X-D-37, X-D-39, X-D-41, X-D-42, X-D-44, X-D-45, X-D-46, X-D-47, X-D-48, X-D-49, X-D-50, X-D-51, X-D-52, X-D-53, X-D-54, X-D-56, X-D-57, X-D-58, X-D-59, X-D-60, X-D-61, and X-D-63). In support, commenters cite various cancer risk estimates of 1 in 55 over 70 years (commenters X-D-4, X-D-33, X-D-39, and X-D-41); 1 in 100 over 70 years (commenters X-D-52 and X-D-54); 1 in 300 over 70 years (commenter X-D-53); a range of 1 in 55 to 1 in 300; and 1 in 800 after control for benzo(a)pyrene (commenter X-D-58). Commenter X-D-42 states that recent benzo(a)pyrene readings from an ambient monitor atop a local school equate to a cancer risk of 1 in 240. Commenter X-D-39 compares the risk level after control to the 1 in 1,000,000 benchmark used in Clean Water Act regulations. Many of the commenters also point out that these risk estimates do not include risks other than lung cancer or chronic effects, the effects of other toxic and hazardous pollutants, emissions from other sources and facilities in the area, or special impacts on the elderly or children. In support, commenter X-D-60 cites a recent journal article ("Molecular and Genetic Damage in Humans from Environmental Pollution in Poland," Perera et al., *Nature*, 360:256-258) regarding the health effects of exposure to polycyclic aromatic hydrocarbons from industrial and residential burning of coal. Many of the commenters state that this risk is not acceptable and ask that the proposal be revised or withdrawn. Commenter X-D-35 also states that the Federal Register notice is insufficient because information as to the relative risk to surrounding communities is not presented.

Response: The proposed emission limits were developed under the 1990 Amendments to the Act and are based on available emission control technology and the performance levels that are achievable by the technology. The Act specifically defers immediate implementation of residual risk standards. Estimates of risk to the surrounding community simply do not play a role in the development of MACT standards. (See sections 112(d)(8) (a) and (c).) However, the EPA is required under the Act to develop residual risk standards within the next 8 years. Provisions within the Act will allow certain batteries to defer meeting this risk standard until the year 2020. To defer the risk standard, these batteries must meet the more stringent LAER emission limits.

Comment: Commenters X-D-2, X-D-16, X-D-35, X-D-37, X-D-42, and X-D-63 believe the regulatory

negotiation process was unfair, exclusive, and tilted in favor of the industry over the interests of the citizens of Clairton.

Response: In any negotiation process, it is sometimes difficult to understand that some parties may have accepted certain provisions in exchange for others in order to reach consensus on the regulation as a whole. No one group or individual involved in the negotiations agreed with all the requirements or obtained all desired provisions. Many new precedents were set in this regulation (e.g., independent daily monitoring paid for by the industry), emission controls were included for one major emission point (bypass/bleeder stacks) beyond the battery proper, and strong work practice requirements were included. The emission reductions achieved by the rule will bring improvement to the community of Clairton as well as to other communities in the country where coke oven batteries are located. When viewed as a whole, the rule was accepted by many different parties with diverse interests.

The commenters speak of exclusion from the process. The EPA actively solicited public participation in this rulemaking process, and responding to these comments on the proposal is a continuing part of that effort. For practical reasons, not all citizens can participate in a regulatory negotiation; however, an effort was made to ensure that citizens and citizen groups, such as the Group Against Smog and Pollution, were represented on the Advisory Committee. In addition, there have been several opportunities for direct involvement by individuals, including NAPCTAC meetings, a 1987 public hearing in Clairton, Pennsylvania, and a recent public hearing in Philadelphia, Pennsylvania. Several opportunities have also been given for the submission of written comments, all of which have been considered.

The EPA also believes it is productive for local citizens and environmental groups to continue to work with the industry, States, and local agencies to address site-specific problems and develop solutions. Local citizens have been effective in obtaining improved emission control of coke oven batteries, and the benefits of their efforts are now being applied to coke batteries nationwide under these NESHAP.

Comment: Commenter X-D-37 suggests that the language in the regulation be clarified to require an igniter for each bypass/bleeder stack as opposed to an igniter for each battery. No alternative method or allowance standard should be permitted. According to the commenter, the EPA also should update the preamble to state that 13 venting incidents had occurred over a 4-year period (1987 through 1990) rather than 12 incidents over a 3-year period (1987 through 1989). Commenter X-D-47 believes the EPA erred in requiring bleeder stack flares only for automatically operated stacks and that manually operated stacks would still be allowed to vent raw gas.

Response: The standards do not require an igniter for each bypass/bleeder stack; instead, a bypass/bleeder stack flare system must be installed that is capable of controlling 120 percent of the normal gas flow generated by the battery. This approach will provide the desired level of control, without imposing on battery operators the unnecessary additional costs that would be associated with a requirement to install flares on each bleeder stack, or a requirement to dismantle bleeder stacks that are not themselves individually igniter-equipped. The regulation prohibits venting other than through the flare system (or approved alternative control device), which provides an adequate safeguard against venting raw coke oven gas to the atmosphere. The EPA anticipates that most owners or operators will comply with these requirements by installing flares on one or more bypass/bleeder stacks. Coke oven gas would be routed to these flares (e.g., through the collecting main). The dampers on any other bypass/bleeder stacks that were not flare-equipped would be closed, which would prevent coke oven gas from being emitted to the atmosphere through these bypass/bleeder stacks. The requirement to install a bypass/bleeder stack flare system applies to both

automatically or manually operated stacks. With approval by the Administrator, an equivalent, alternative system with a destruction capability of at least 98 percent can also be used so as not to preclude the use of new or improved technology.

Comment: Commenter X-D-2 believes that daily inspections are unworkable in the long run and will not compensate for a 30-day rolling average computation. Other commenters add that the 30-day average smooths out all the spikes and, over time, masks real problems (commenters X-D-4, X-D-9, X-D-13, X-D-14, X-D-16, X-D-21, X-D-22, X-D-25, X-D-27, X-D-29, X-D-31, X-D-33, X-D-38, X-D-41, X-D-42, X-D-47, X-D-52, X-D-53, X-D-56, and X-D-60).

Response: This issue was discussed at length by the Advisory Committee, and an agreement was reached that would provide for limits based on a 30-run average for the rule while maintaining single-run limits for SIP's and consent decrees. The format of the rule is a 30-run average to reflect long-term emissions and exposure levels, which are associated with chronic health effects. However, the 30-run average will also limit the frequency and extent of some short-term excursions because a single high excursion can result in exceeding the 30-run limit for that day, and repeated poor performance may result in exceedance of the 30-run limit on additional days. Each daily exceedance of the 30-run limit may be considered a violation. If daily single-run limits were developed that were statistically equivalent to these 30-run limits, the single-run limits would have been significantly higher than the 30-run limits.

In addition, current SIP's and consent decrees are enforced based on exceeding a limit for any single observation. These limits will remain in effect (see the previous discussion of "backsliding") and provide a cap for a short-term excursion from a single high observation. The Committee agreed that the preferred approach would apply a 30-run average for the rule, with inspections by independent observers, and the maintenance of current single-run limits in SIP's.

Another factor that should result in fewer short-term excursions under the rule is that daily inspections are required. Many batteries, including those in Allegheny County, are inspected less frequently by the enforcement agency. In many cases, the data from these daily inspections can be used to improve the enforcement of SIP's and consent decrees.

Comment: According to commenter X-D-35, the Federal Register notice of proposal is also deficient because it did not present detailed information on discussion of the relative performance of various coke oven batteries at different levels of technical capability.

Response: The EPA does not agree that the notice of proposed rulemaking is deficient. The pace of the negotiations precluded compiling and analyzing the data in the level of detail desired by the commenter. However, all information and data considered by the Committee are in the docket and available for public inspection. These include performance data for individual batteries, data summaries, and a listing of batteries ranked by performance. This information was made available during the negotiation process to all Committee members, including the representatives from the Group Against Smog and Pollution.

B. Test Methods and Monitoring

Comment: Commenter X-D-12 explains that certain coke plants in Jefferson County, Alabama are performing charging and pushing operations at night when surveillance is not possible. For this reason, only a portion of Method 303 can be enforced.

Response: 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.

Comment: Commenters X-D-33 and X-D-48, residents of the Pittsburgh area, note that coke oven emissions are higher at night and on weekends and holidays.

Response: The standards should eliminate this problem because independent monitoring will be required 7 days a week, including holidays. This type of enhanced monitoring, coupled with the new work practice rules, is expected to aid in improving emissions control.

Comment: Commenter X-D-12 asks how to differentiate ovens and the proper emission limits for merchant plants or batteries that produce a percentage of furnace and foundry coke, and if this compounds the required monitoring calculations.

Response: The definition of “foundry coke producer” included in the rule does not require differentiating ovens or additional monitoring calculations for daily inspections if the battery changes the type of coke produced during the year. The coke plant is considered to be a foundry producer and subject to numerical limits for foundry coke plants if the annual design capacity on January 1, 1992, was less than 1.25 million Mg/yr (not including the capacity of the specific batteries identified under § 63.300(d)(2) of the rule or cold-idle batteries included in the design capacity pursuant to § 63.304(b)(6) of the rule) and the plant was not owned or operated by an integrated steel producer as of that date.

Comment: Commenter X-D-12 asks who is responsible for the cost of inspections on days when inspections cannot be performed (i.e., in the case of bad weather). Commenter X-D-41 asks what happens if the responsible agency fails to have the inspections done?

Response: The fees to be paid by the industry to cover the cost of monitoring and inspections will be provided annually with the expectation that inspections occur each day. The size of the fee is a function of the number of batteries at the plant, and it is not affected by the number of inspections that are made. Provisions are included in the rule to account for data from days on which inspections of one or more emission points cannot be performed; however, the EPA expects that this situation will occur very infrequently. If a State is not enforcing the program as required, the EPA regional office may take over and implement the enforcement program. In addition, the Act contains provisions to ensure that the enforcement agency does fulfill its obligations under the law.

Comment: Commenter X-D-12 asks if industry is still responsible for the cost of Method 303 inspections to enforce a SIP or consent decree with more stringent requirements.

Response: In the negotiations, the industry agreed to pay for Method 303 inspections. As long as Method 303 is applied, the cost of Method 303 inspections will be borne by the industry and will be based on the formula in the rule. Any data collected by Method 303 that are consistent with the SIP or consent decree inspection method can be used to enforce the SIP or consent decree. If the SIP or consent decree requires additional labor hours beyond those allotted for the Method 303 observer under this rule, the cost of these additional hours is not covered under the rule’s formula for inspection cost.

Comment: Commenter X-D-43 asks EPA to clarify that emission fees collected under title V of the Act are

not to be used to pay for the required inspections. The inspection fees are in addition to the title V fees.

Response: In the negotiations, it was understood that the inspection fees required under this rule are in addition to title V fees, so long as the title V fees do not cover the inspections required under this rule. (See § 63.309(a)(4)(iii).)

Comment: Commenter X-D-12 asks how many lids count in the calculation of percent leaking lids where there are four lids per oven but only three are ever used for staged charging. The concern is over the total number of lids that should be used in the denominator of the calculation of percent leaking lids.

Response: If the fourth lid can be removed and is used for charging or decarbonizing during normal operation, the calculation of percent leaking lids should be based on four lids per oven. If the fourth lid is not used for charging or decarbonizing during normal operation, the calculation should be based on three lids per oven.

Comment: Commenter X-D-12 notes that the term “B” in the equation for determining costs for inspections (see 57 FR 57567) is not defined.

Response: The “B” in the cost equation is a Federal Register typographical error and was not intended as part of the equation.

C. Reporting and Recordkeeping

Comment: Commenter X-D-12 suggests that the rule require all plants to report their commitment to either the MACT or LAER standard in 1993, with no provision for changing their initial decision to avoid situations where inspectors are hired but not needed because the plant decides to drop from the extension track.

Response: The rule allows the plants to “straddle” until a binding declaration is made in 1998. This means the owner or operator of the battery in question has chosen to meet both the MACT and LAER limits, and monitoring would begin in November 1993 rather than 1995. If the owner or operator of a plant changes from LAER to MACT in 1995, the plant will be required to meet MACT standards, which will require daily inspections. A commitment to meet the November 1993 limits is a commitment to pay for the cost of daily inspections annually, starting in November 1993.

Comment: Commenters X-D-9 and X-D-41 urge EPA not to implement self-certifying reporting requirements under the standards. (See 57 FR 57539.) Previous Federal and industry experience with self-certification has not worked according to these commenters.

Response: The rule includes the innovative provisions for daily inspections by an independent observer who must meet specific training requirements to qualify as a visible emission inspector. Because the independent inspector will make the visible emission observations for compliance determinations, the Agency does not agree that self-certification in the initial or semiannual compliance certifications included in the reporting requirements will, in this case, present the problems implied by the commenters.

D. Miscellaneous

Comment: Commenters X-D-4, X-D-9, X-D-13, X-D-14, X-D-16, X-D-21, X-D-22, X-D-27, X-D-28, X-D-29, X-D-31, X-D-33, X-D-38, X-D-39, X-D-41, and X-D-53 believe penalties for violations should be

included in the rule.

Response: The commenters are mistaken that the rule fails to provide for civil and criminal penalties. Penalties for violations are not cited in the rule because enforcement of the rule (and permit requirements) is the responsibility of the EPA or delegated State (i.e., a State with an approved operating permit program). Provisions for maximum penalties (up to \$25,000 per day per emission point) are included in the Act. The 30-day rolling average is calculated each day; consequently, a penalty can be assessed each day for any exceedance of the limit for each emission point. However, penalties are assessed at the discretion of the enforcement agency, which may consider many factors (frequency, duration, severity of violation, good faith efforts to correct, etc.) in determining an appropriate penalty. In addition, the Act includes provisions to ensure that the enforcement agency fulfills its responsibilities under the law.

Comment: Commenter X-D-12 asks if new operating permits based on Method 303 need to be issued now if the LAER track is followed.

Response: Yes, but approval of the State permit program is required before operating permits can be issued. As discussed in the preamble at 57 FR 57555, the EPA intends to delegate authority for implementing the NESHAP to the States as soon as possible after promulgation.

The LAER standards will become effective on November 15, 1993. Under the final rules establishing requirements for State operating permit programs (40 CFR Part 70), States must submit proposed permit programs to EPA for approval by November 15, 1993. Sources subject to the permit program must submit complete permit applications within 1 year after a State program is approved (including an interim approval) or, where the State program is not approved, within 1 year after a program is promulgated by the EPA.

Comment: Commenter X-D-37 suggests the rule should include provisions for planned outages. Companies should be required to notify the regulatory agency of work plans at least a week in advance. This, coupled with a followup report, would prevent a plant from hiding emission releases during a planned outage.

Response: As discussed in the preamble to the proposed rule (see 57 FR 57548, December 4, 1992), the owner or operator must operate and maintain the battery and its air pollution control technology at all times, including during startups, shutdowns, and malfunctions, in a manner consistent with good air pollution control practices for minimizing emissions to the levels required by the applicable standards. Emissions in excess of the applicable standards occurring during a planned outage would be a violation unless the emissions were the result of an incident determined to constitute a malfunction. (However, it would be difficult to qualify a "planned" outage as a malfunction.) In addition, the provisions included in the rule for independent daily monitoring ensure that an inspector is at the site every day to ensure that proper procedures (e.g., those included in the startup, shutdown, and malfunction plan and the work practice plan) are followed as applicable. The presence of an independent inspector on the site each day should prevent the hidden release of emissions during an outage.

Comment: Commenter X-D-10 stresses the significance of the Committee agreement to support the standards as long as the EPA proposes and promulgates a regulation and preamble with the same substance and effect of the final agreement. The organizations that negotiated the agreement also reiterate their support (comment X-D-15).

Response: The EPA understands the importance of honoring this successful negotiated agreement and has

made no change to the proposed rule or its rationale that would in any way alter the substance and effect of the agreement.

Comment: Nineteen commenters requested that the EPA hold a public hearing in Clairton, Pittsburgh, or Allegheny County, Pennsylvania (rather than at EPA facilities in Research Triangle Park, North Carolina) so that affected citizens residing near the Nation's largest coke plant could have an opportunity to express their views on the proposed rule. In subsequent written and oral testimony, commenters reiterated their request for a second hearing in Pittsburgh or Clairton so that more citizens wishing to discuss their concerns would be able to attend (commenters X-D-2, X-D-6, X-D-7, X-D-8, X-D-11, X-D-14, X-D-16, X-D-21, X-D-24, X-D-25, X-D-29, X-D-31, X-D-33, X-D-40, X-D-41, X-D-50, X-D-52, X-D-54, X-D-57, and X-D-63).

Response: The EPA agreed to the initial request of these residents and environmental groups and arranged a public hearing at the EPA regional offices in Philadelphia, Pennsylvania. At the request of the commenters, the EPA also delayed the date originally scheduled for the hearing from December 28, 1992, to January 15, 1993, to avoid conflicts with Christmas holidays for citizens wishing to present testimony. The transcript from this hearing is included in the docket. (See Docket Item X-G-1.)

In further discussion of this issue at the hearing, the EPA representatives explained that most public hearings for air standards are held in Research Triangle Park. This is because when national standards are proposed, requests for hearings typically come from all over the country. By holding the hearings in Research Triangle Park, no one person or group is given any unfair advantage. In this case, while a vast majority of the requests did come from the Pittsburgh area, people from other areas in Pennsylvania also wanted to attend. In holding the hearing in Philadelphia, the EPA tried to accommodate commenters from the Pittsburgh area as well as other Pennsylvania residents. The EPA representatives also explained that a public hearing, however important, is an adjunct to the written comment process. This process is fully available to everyone and is not dependent at all on location.

V. Administrative Requirements

A. Docket

The docket is an organized and complete file of all the information considered by EPA in the development of this rulemaking. The docket is a dynamic file, since material is added throughout the rulemaking development. The docketing system is intended to allow members of the public and industries involved to readily identify and locate documents so that they can effectively participate in the rulemaking process. Along with the statement of basis and purpose of the proposed and promulgated standards and EPA responses to significant comments, the contents of the docket, except for interagency review materials, will serve as the record in case of judicial review. (See section 307(d)(7)(A).)

B. Paperwork Reduction Act

The Office of Management and Budget (OMB) has approved the information collection requirements contained in this rule under the provisions of the Paperwork Reduction Act of 1980, 44 U.S.C. 3501 et seq., and has assigned OMB control number 2060-0253.

Public reporting burden for this collection of information is estimated to average 2,461 hours per respondent

per year, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, 2136, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503, marked "Attention: Desk Officer for EPA."

The control numbers assigned to collections of information in certain EPA regulations by the OMB have been consolidated under 40 CFR Part 9. The information collection request for this NESHAP was previously subject to public notice and comment prior to OMB approval. As a result, the EPA finds that there is "good cause" under section 553(b)(B) of the Administrative Procedure Act to amend the applicable table in 40 CFR Part 9 to display the OMB control number for this rule without prior notice and comment. Due to the technical nature of the table, further notice and comment would be unnecessary. For the same reasons, the EPA also finds that there is good cause under 5 U.S.C. 553(d)(3). For additional information, see 58 FR 18014, April 7, 1993 and 58 FR 27472, May 10, 1993.

C. Executive Order 12291

Under Executive Order 12291, the EPA is required to judge whether a regulation is a "major rule" and therefore subject to the requirements of a regulatory impact analysis (RIA). The EPA has determined that this regulation would result in none of the adverse economic effects set forth in section 1 of the Order as grounds for finding a regulation to be a "major rule." The total annual costs of the MACT standards range from \$25 million to \$33 million/year; the total annual cost of the LAER standards range from \$84 million to \$95 million/year, including the MACT costs. These impacts are below the \$100 million threshold. Only small market changes are projected. Increases in the price of coke would be minimal (less than 1 percent for furnace coke and about 1.1 to 2.5 percent for foundry coke). The decrease in coke production would also be minimal (0.7 percent for furnace coke and 1.1 percent for foundry coke under MACT standards; 2.1 percent for furnace and 2.6 for foundry coke under LAER standards). In addition, the rule will not cause significant adverse effects on domestic competition, employment, investment, productivity, innovation, or competition in foreign markets. The EPA has, therefore, concluded that this regulation is not a "major rule" under Executive Order 12291.

D. Regulatory Flexibility Act

The Regulatory Flexibility Act of 1980 requires the identification of potentially adverse impacts of Federal regulations upon small business entities. The Act specifically requires the completion of a Regulatory Flexibility Analysis in those instances where small business impacts are possible. Because these standards impose no adverse economic impacts on small businesses, a Regulatory Flexibility Analysis has not been conducted.

Pursuant to the provisions of 5 U.S.C. 605(b), I hereby certify that this rule will not have a significant economic impact on a substantial number of small business entities because no substantial number of small entities are affected and no significant impact on these small entities will result.

E. Miscellaneous

In accordance with section 112(f)(2)(C) of the Act, the EPA is required to determine whether additional standards are necessary to address the risk remaining after technology-based MACT standards are imposed. The EPA is to make that determination for coke oven batteries and to promulgate standards determined to be necessary by October 27, 2001. Pursuant to section 112(i)(8)(C) of the Act, the EPA also is required to review and revise the LAER standard by January 1, 2007.

List of Subjects in 40 CFR Part 63

Environmental protection, Air pollution control, Coke oven emissions, Hazardous substances, Reporting and recordkeeping requirements.

Dated: October 18, 1993.

Carol M. Browner,
Administrator.

Parts 9 and 63 of title 40, chapter I, of the Code of Federal Regulations are amended as follows:
PART 9-OMB APPROVALS UNDER THE PAPERWORK REDUCTION ACT

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

Authority: 7 U.S.C. 135 et seq., 136-136y; 15 U.S.C. 2001, 15 U.S.C. 2003, 15 U.S.C. 2005, 15 U.S.C. 2006, 2601-2671; 21 U.S.C. 331j, 21 U.S.C. 346a, 348; 31 U.S.C. 9701; 33 U.S.C. 1251 et seq., 1311, 1313d, 1314, 1321, 1326, 1330, 1344, 1345 (d) and (e), 1361; E.O. 11735, 38 FR 21243, 3 CFR 1971-1975 Comp., p. 973; 42 U.S.C. 241, 42 U.S.C. 242b, 42 U.S.C. 243, 42 U.S.C. 246, 42 U.S.C. 300f, 42 U.S.C. 300g, 42 U.S.C. 300g-1, 42 U.S.C. 300g-2, 42 U.S.C. 300g-3, 42 U.S.C. 300g-4, 42 U.S.C. 300g-5, 42 U.S.C. 300g-6, 42 U.S.C. 300j-1, 42 U.S.C. 300j-2, 42 U.S.C. 300j-3, 42 U.S.C. 300j-4, 42 U.S.C. 300j-9, 1857 et seq., 6901-6992k, 7401-7671q, 7542, 9601-9657, 11023, 11048.

2. Section 9.1 is amended by adding a new entry to the table under the indicated heading to read as follows:

§ 9.1 OMB approvals under the Paperwork Reduction Act.

40 CFR citation	OMB control No.
* * * * *	
* * * * *	
National Emission Standards for Hazardous Air Pollutants for Source Categories	
* * * * *	
63.302-63.311.....	2060-0253
* * * * *	

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

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

Authority: Secs. 101, 112, 114, 116, 301, Clean Air Act as amended (42 U.S.C. 7401, 42 U.S.C. 7412, 42 U.S.C. 7414, 42 U.S.C. 7616, 7601).

4. Part 63 is amended by adding Subpart L to read as follows:

Subpart L-National Emission Standards for Coke Oven Batteries

Sec. 63.300 Applicability.

63.301 Definitions.

63.302 Standards for by-product coke oven batteries.

63.303 Standards for nonrecovery coke oven batteries.

63.304 Standards for compliance date extension.

63.305 Alternative standards for coke oven doors equipped with sheds.

63.306 Work practice standards.

63.307 Standards for bypass/bleeder stacks.

63.308 Standards for collecting mains.

63.309 Performance tests and procedures.

63.310 Requirements for startups, shutdowns, and malfunctions.

63.311 Reporting and recordkeeping requirements.

63.312 Existing regulations and requirements.

63.313 Delegation of authority.

Appendix A to Subpart L-Operating Coke Oven Batteries As Of April 1, 1992
Subpart L-National Emission Standards for Coke Oven Batteries

§ 63.300 Applicability.

(a) Unless otherwise specified in §§ 63.306, 63.307, and 63.311, the provisions of this subpart apply to

existing by-product coke oven batteries at a coke plant and to existing nonrecovery coke oven batteries at a coke plant on and after the following dates:

(1) December 31, 1995, for existing by-product coke oven batteries subject to emission limitations in § 63.302(a)(1) or existing nonrecovery coke oven batteries subject to emission limitations in § 63.303(a);

(2) January 1, 2003, for existing by-product coke oven batteries subject to emission limitations in § 63.302(a)(2);

(3) November 15, 1993, for existing by-product and nonrecovery coke oven batteries subject to emission limitations in §§ 63.304(b)(1) or 63.304(c);

(4) January 1, 1998, for existing by-product coke oven batteries subject to emission limitations in §§ 63.304(b)(2) or 63.304(b)(7); and

(5) January 1, 2010, for existing by-product coke oven batteries subject to emission limitations in §§ 63.304(b)(3) or 63.304(b)(7).

(b) The provisions for new sources in §§ 63.302(b), 63.302(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 coke oven battery results in an increase in the design capacity of the coke plant as of 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.

(c) The provisions of this subpart apply to each brownfield coke oven battery, each padup rebuild, and each cold-idle coke oven battery that is restarted.

(d) The provisions of §§ 63.304(b)(2)(i)(A) and 63.304(b)(3)(i) apply to each foundry coke producer as follows:

(1) A coke oven battery subject to § 63.304(b)(2)(i)(A) or § 63.304(b)(3)(i) must be a coke oven battery that on January 1, 1992, was owned or operated by a foundry coke producer; and

(2)(i) A coke oven battery owned or operated by an integrated steel producer on January 1, 1992, and listed in paragraph (d)(2)(ii) of this section, that was sold to a foundry coke producer before November 15, 1993, shall be deemed for the purposes of paragraph (d)(1) of this section to be owned or operated by a foundry coke producer on January 1, 1992.

(ii) The coke oven batteries that may qualify under this provision are the following:

(A) The coke oven batteries at the Bethlehem Steel Corporation's Lackawanna, New York facility; and

(B) The coke oven batteries at the Rouge Steel Company's Dearborn, Michigan facility.

(e) The emission limitations set forth in this subpart shall apply at all times except during a period of startup, shutdown, or malfunction. The startup period shall be determined by the Administrator and shall

not exceed 180 days.

(f) After October 28, 1992, rules of general applicability promulgated under section 112 of the Act, including the General Provisions, may apply to coke ovens provided that the topic covered by such a rule is not addressed in this subpart.

§ 63.301 Definitions.

Terms used in this subpart are defined in the Act or in this section as follows:

Administrator means the Administrator of the United States Environmental Protection Agency or his or her authorized representative (e.g., a State that has been delegated the authority to implement the provisions of this subpart or its designated agent).

Brownfield coke oven battery means a new coke oven battery that replaces an existing coke oven battery or batteries with no increase in the design capacity of the coke plant as of November 15, 1990 (including 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.

Bypass/bleeder stack means a stack, duct, or offtake system that is opened to the atmosphere and used to relieve excess pressure by venting raw coke oven gas from the collecting main to the atmosphere from a by-product coke oven battery, usually during emergency conditions.

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. Coke oven batteries in operation as of April 1, 1992, are identified in appendix A to this subpart.

Certified observer means a visual emission observer, certified under (if applicable) Method 303 and Method 9 (if applicable) 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.

Charge or charging period means, for a by-product coke oven battery, the period of time that commences when coal begins to flow into an oven through a topside port and ends when the last charging port is recapped. For a nonrecovery coke oven battery, charge or charging period means the period of time that commences when coal begins to flow into an oven and ends when the push side door is replaced.

Coke oven battery means either a by-product or nonrecovery coke oven battery.

Coke oven door means each end enclosure on the pusher side and the coking side of an oven. The chuck, or leveler-bar, door is part of the pusher side door. A coke oven door includes the entire area on the vertical face of a coke oven between the bench and the top of the battery between two adjacent buckstays.

Cold-idle coke oven battery means an existing coke oven battery that has been shut down, but is not dismantled.

Collecting main means any apparatus that is connected to one or more offtake systems and that provides a passage for conveying gases under positive pressure from the by-product coke oven battery to the by-product recovery system.

Collecting main repair means any measure to stop a collecting main leak on a long-term basis. A repair measure in general is intended to restore the integrity of the collecting main by returning the main to approximately its design specifications or its condition before the leak occurred. A repair measure may include, but is not limited to, replacing a section of the collecting main or welding the source of the leak.

Consecutive charges means charges observed successively, excluding any charge during which the observer's view of the charging system or topside ports is obscured.

Design capacity means the original design capacity of a coke oven battery, expressed in megagrams per year of furnace coke.

Foundry coke producer means a coke producer that is not and was not on January 1, 1992, owned or operated by an integrated steel producer and had on January 1, 1992, an annual design capacity of less than 1.25 million megagrams per year (not including any capacity satisfying the requirements of § 63.300(d)(2) or § 63.304(b)(6)).

Greenfield coke oven battery means a coke oven battery for which construction is commenced at a plant site (where no coke oven batteries previously existed) after December 4, 1992.

Integrated steel producer means a company or corporation that produces coke, uses the coke in a blast furnace to make iron, and uses the iron to produce steel. These operations may be performed at different plant sites within the corporation.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures caused in part by poor maintenance or careless operation are not malfunctions.

New shed means a shed for which construction commenced after September 15, 1992. The shed at Bethlehem Steel Corporation's Bethlehem plant on Battery A is deemed not to be a new shed.

Nonrecovery coke oven battery means a source consisting of a group of ovens connected by common walls and operated as a unit, 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.

Offtake system means any individual oven apparatus that is stationary and provides a passage for gases from an oven to a coke oven battery collecting main or to another oven. Offtake system components include the standpipe and standpipe caps, goosenecks, stationary jumper pipes, mini-standpipes, and standpipe and gooseneck connections.

Oven means a chamber in the coke oven battery in which coal undergoes destructive distillation to produce coke.

Padup rebuild means a coke oven battery that is a complete reconstruction of an existing coke oven battery on the same site and pad without an increase in the design capacity of the coke plant as of 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. The Administrator may determine that a project is a padup rebuild if it effectively constitutes a replacement of the battery above the pad, even if some portion of the brickwork above the pad is retained.

Pushing, for the purposes of § 63.305, means that 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.

Run means the observation of visible emissions from topside port lids, offtake systems, coke oven doors, or the charging of a coke oven that is made in accordance with and is valid under Methods 303 or 303A in appendix A to this part.

Shed means a structure for capturing coke oven emissions on the coke side or pusher side of the coke oven battery, which routes the emissions to a control device or system.

Short coke oven battery means a coke oven battery with ovens less than 6 meters in height.

Shutdown means the operation that commences when pushing has occurred on the first oven with the intent of pushing the coke out of all of the ovens in a coke oven battery without adding coal, and ends when all of the ovens of a coke oven battery are empty of coal or coke.

Standpipe cap means an apparatus used to cover the opening in the gooseneck of an offtake system.

Startup means that operation that commences when the coal begins to be added to the first oven of a coke oven battery that either is being started for the first time or that is being restarted and ends when the doors have been adjusted for maximum leak reduction and the collecting main pressure control has been stabilized. Except for the first startup of a coke oven battery, a startup cannot occur unless a shutdown has occurred.

Tall coke oven battery means a coke oven battery with ovens 6 meters or more in height.

Temporary seal means any measure, including but not limited to, application of luting or packing material, to stop a collecting main leak until the leak is repaired.

Topside port lid means a cover, removed during charging or decarbonizing, that is placed over the opening through which coal can be charged into the oven of a by-product coke oven battery.

§ 63.302 Standards for by-product coke oven batteries.

(a) Except as provided in § 63.304 or § 63.305, on and after the dates specified in this paragraph, no owner or operator shall cause to be discharged or allow to be discharged to the atmosphere, coke oven emissions from each affected existing by-product coke oven battery that exceed any of the following emission limitations or requirements:

(1) On and after December 31, 1995;

(i) For coke oven doors;

(A) 6.0 percent leaking coke oven doors for each tall by-product coke oven battery, as determined according to the procedures in § 63.309(d)(1); and

(B) 5.5 percent leaking coke oven doors for each short by-product coke oven battery, as determined according to the procedures in § 63.309(d)(1);

(ii) 0.6 percent leaking topside port lids, as determined by the procedures in § 63.309(d)(1);

(iii) 3.0 percent leaking offtake system(s), as determined by the procedures in § 63.309(d)(1); and

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

(2) On and after January 1, 2003, unless the Administrator promulgates more stringent limits pursuant to section 112(f) of the Act;

(i) 5.5 percent leaking coke oven doors for each tall by-product coke oven battery, as determined by the procedures in § 63.309(d)(1); and

(ii) 5.0 percent leaking coke oven doors for each short by-product coke oven battery, as determined by the procedures in § 63.309(d)(1).

(b) Except as provided in paragraph (c) of this section, no owner or operator shall cause to be discharged or allow to be discharged to the atmosphere, coke oven emissions from a by-product coke oven battery subject to the applicability requirements in § 63.300(b) that exceed any of the following emission limitations:

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

(2) 0.0 percent leaking topside port lids, as determined by the procedures in § 63.309(d)(1);

(3) 0.0 percent leaking offtake system(s), as determined by the procedures in § 63.309(d)(1); and

(4) 34 seconds of visible emissions per charge, as determined by the procedures in § 63.309(d)(2).

(c) The emission limitations in paragraph (b) of this section do not apply to the owner or operator of a by-product coke oven battery that utilizes a new recovery technology, including but not limited to larger size ovens, operation under negative pressure, and processes with emission points different from those regulated under this subpart. An owner or operator constructing a new by-product coke oven battery or reconstructing an existing by-product recovery battery that utilizes a new recovery technology shall:

(1) Notify the Administrator of the intention to do so, as required in § 63.311(c); and

(2) Submit, for the determination under section 112(g)(2)(B) of the Act, and as part of the application for permission to construct or reconstruct, all information and data requested by the Administrator for the

determination of applicable emission limitations and requirements for that by-product coke oven battery.

(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:

- (1) 4.0 percent leaking coke oven doors on tall by-product coke oven batteries, as determined by the procedures in § 63.309(d)(1);
- (2) 3.3 percent leaking coke oven doors on short by-product coke oven batteries, as determined by the procedures in § 63.309(d)(1);
- (3) 2.5 percent leaking offtake system(s), as determined by the procedures in § 63.309(d)(1);
- (4) 0.4 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).

§ 63.303 Standards for nonrecovery coke oven batteries.

(a) Except as provided in § 63.304, on and after December 31, 1995, no owner or operator shall cause to be discharged or allow to be discharged to the atmosphere coke oven emissions from each affected existing nonrecovery coke oven battery that exceed any of the following emission limitations or requirements:

(1) For coke oven doors;

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

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

(2) For charging operations, the owner or operator shall implement, for each day of operation, the work practices specified in § 63.306(b)(6) and record the performance of the work practices as required in § 63.306(b)(7).

(b) No owner or operator shall cause to be discharged or allow to be discharged to the atmosphere coke oven emissions from each affected new nonrecovery coke oven battery subject to the applicability requirements in § 63.300(b) that exceed any of the following emission limitations or requirements:

(1) For coke oven doors;

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

(ii) The owner or operator shall monitor and record, once per day for each day of operation, the pressure

in each oven or in a common battery tunnel to ensure that the ovens are operated under a negative pressure;

(2) For charging operations, the owner or operator shall install, operate, and maintain an emission control system for the capture and collection of emissions in a manner consistent with good air pollution control practices for minimizing emissions from the charging operation;

(3) 0.0 percent leaking topside port lids, as determined by the procedures in § 63.309(d)(1) (if applicable to the new nonrecovery coke oven battery); and

(4) 0.0 percent leaking offtake system(s), as determined by the procedures in § 63.309(d)(1) (if applicable to the new nonrecovery coke oven battery).

§ 63.304 Standards for compliance date extension.

(a) An owner or operator of an existing coke oven battery (including a cold-idle coke oven battery), a padup rebuild, or a brownfield coke oven battery, may elect an extension of the compliance date for emission limits to be promulgated pursuant to section 112(f) of the Act in accordance with section 112(i)(8). To receive an extension of the compliance date from January 1, 2003, until January 1, 2020, the owner or operator shall notify the Administrator as described in § 63.311(c) that the battery will comply with the emission limitations and requirements in this section in lieu of the applicable emission limitations in §§ 63.302 or 63.303.

(b) Except as provided in paragraphs (b)(4), (b)(5), and (b)(7) of this section and in § 63.305, on and after the dates specified in this paragraph, no owner or operator shall cause to be discharged or allow to be discharged to the atmosphere coke oven emissions from a by-product coke oven battery that exceed any of the following emission limitations:

(1) On and after November 15, 1993;

(i) 7.0 percent leaking coke oven doors, as determined by the procedures in § 63.309(d)(1);

(ii) 0.83 percent leaking topside port lids, as determined by the procedures in § 63.309(d)(1);

(iii) 4.2 percent leaking offtake system(s), as determined by the procedures in § 63.309(d)(1); and

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

(2) On and after January 1, 1998;

(i) For coke oven doors:

(A) 4.3 percent leaking coke oven doors for 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); and

(B) 3.8 percent leaking coke oven doors on each by-product coke oven battery not subject to the emission limitation in paragraph (b)(2)(i)(A) of this section, as determined by the procedures in § 63.309(d)(1);

- (ii) 0.4 percent leaking topside port lids, as determined by the procedures in § 63.309(d)(1);
 - (iii) 2.5 percent leaking offtake system(s), as determined by the procedures in § 63.309(d)(1); and
 - (iv) 12 seconds of visible emissions per charge, as determined by the procedures in § 63.309(d)(2).
- (3) On and after January 1, 2010, unless the Administrator promulgates more stringent limits pursuant to section 112(i)(8)(C) of the Act;
- (i) 4.0 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); and
 - (ii) 3.3 percent leaking coke oven doors for each by-product coke oven battery not subject to the emission limitation in paragraph (b)(3)(i) of this section, as determined by the procedures in § 63.309(d)(1).
- (4) No owner or operator shall cause to be discharged or allow to be discharged to the atmosphere coke oven emissions from a brownfield or padup rebuild by-product coke oven battery, other than those specified in paragraph (b)(4)(v) of this section, that exceed any of the following emission limitations:
- (i) For coke oven doors;
 - (A) 4.0 percent leaking coke oven doors for each tall by-product coke oven battery, as determined by the procedures in § 63.309(d)(1); and
 - (B) 3.3 percent leaking coke oven doors on each short by-product coke oven battery, as determined by the procedures in § 63.309(d)(1);
 - (ii) 0.4 percent leaking topside port lids, as determined by the procedures in § 63.309(d)(1);
 - (iii) 2.5 percent leaking offtake system(s), as determined by the procedures in § 63.309(d)(1); and
 - (iv) 12 seconds of visible emissions per charge, as determined by the procedures in § 63.309(d)(2).
 - (v) The requirements of paragraph (b)(4) of this section shall not apply and the requirements of paragraphs (b)(1), (b)(2), and (b)(3) of this section do apply to the following brownfield or padup rebuild coke oven batteries:
 - (A) Bethlehem Steel-Burns Harbor, Battery No. 2;
 - (B) National Steel-Great Lakes, Battery No. 4; and
 - (C) Koppers-Woodward, Battery No. 3.
 - (vi) To retain the exclusion provided in paragraph (b)(4)(v) of this section, a coke oven battery specified in paragraph (b)(4)(v) of this section shall commence construction not later than July 1, 1996, or 1 year after obtaining a construction permit, whichever is earlier.

(5) The owner or operator of a cold-idle coke oven battery that shut down on or after November 15, 1990, shall comply with the following emission limitations:

(i) For a brownfield coke oven battery or a padup rebuild coke oven battery, coke oven emissions shall not exceed the emission limitations in paragraph (b)(4) of this section; and

(ii) For a cold-idle battery other than a brownfield or padup rebuild coke oven battery, coke oven emissions shall not exceed the emission limitations in paragraphs (b)(1) through (b)(3) of this section.

(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)(iii) 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.

(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.

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.

(c) On and after November 15, 1993, no owner or operator shall cause to be discharged or allow to be discharged to the atmosphere coke oven emissions from an existing nonrecovery coke oven battery that exceed any of the emission limitations or requirements in § 63.303(a).

(d) Each owner or operator of an existing coke oven battery qualifying for a compliance date extension pursuant to this section shall make available, no later than January 1, 2000, to the surrounding

communities the results of any risk assessment performed by the Administrator to determine the appropriate level of any emission standard established by the Administrator according to section 112(f) of the Act.

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

(a) The owner or operator of a new or existing coke oven battery equipped with a shed for the capture of coke oven emissions from coke oven doors and an emission control device for the collection of the emissions may comply with an alternative to the applicable visible emission limitations for coke oven doors in §§ 63.302 and 63.304 according to the procedures and requirements in this section.

(b) To qualify for approval of an alternative standard, the owner or operator shall submit to the Administrator a test plan for the measurement of emissions. A copy of the request shall also be sent to the Director, Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, N.C. 27711. The plan shall describe the procedures to be used for the measurement of particulate matter; the parameters to be measured that affect the shed exhaust rate (e.g., damper settings, fan power) and the procedures for measuring such parameters; and if applicable under paragraph (c)(5)(ii) of this section, the procedures to be used for the measurement of benzene soluble organics, benzene, toluene, and xylene emitted from the control device for the shed. The owner or operator shall notify the Administrator at least 30 days before any performance test is conducted.

(c) A complete test plan is deemed approved if no disapproval is received within 60 days of the submittal to the Administrator. After approval of the test plan, the owner or operator shall;

(1) Determine the efficiency of the control device for removal of particulate matter by conducting measurements at the inlet and the outlet of the emission control device using Method 5 in appendix A to part 60 of this chapter, with the filter box operated at ambient temperature and in a manner to avoid condensation, with a backup filter;

(2) Measure the visible emissions from coke oven doors that escape capture by the shed using Method 22 in appendix A to part 60 of this chapter. For the purpose of approval of an alternative standard, no visible emissions may escape capture from the shed.

(i) Visible emission observations shall be taken during conditions representative of normal operations, except that pushing shall be suspended and pushing emissions shall have cleared the shed; and

(ii) Method 22 observations shall be performed by an observer certified according to the requirements of Method 9 in appendix A to part 60 of this chapter. The observer shall allow pushing emissions to be evacuated (typically 1 to 2 minutes) before making observations;

(3) Measure the opacity of emissions from the control device using Method 9 in appendix A to part 60 of this chapter during conditions representative of normal operations, including pushing; and

(i) If the control device has multiple stacks, the owner or operator shall use an evaluation based on visible emissions and opacity to select the stack with the highest opacity for testing under this section;

(ii) The highest opacity, expressed as a 6-minute average, shall be used as the opacity standard for the

control device.

(4) Thoroughly inspect all compartments of each air cleaning device prior to the performance test for proper operation and for changes that signal the potential for malfunction, including the presence of tears, holes, and abrasions in filter bags; damaged seals; and for dust deposits on the clean side of bags; and

(5) Determine the allowable percent leaking doors under the shed using either of the following procedures:

(i) Calculate the allowable percent leaking doors using the following equation:

$$PLD = \frac{[1.4(PLD_{std})^{2.5}]^{0.4}}{[(1.4-eff/100)]^{0.4}} \quad (\text{Eq. 1})$$

where

PLD = Allowable percent leaking doors for alternative standard.

PLD_{std} = Applicable visible emission limitation of percent leaking doors under this subpart that would otherwise apply to the coke oven battery, converted to the single-run limit according to Table 1.

eff = Percent control efficiency for particulate matter for emission control device as determined according to paragraph (c)(1) of this section.

Table 1. Conversion to Single-Run Limit

30-run limit	Single-pass limit (98 percent level)
7.0	11.0
6.0	9.5
5.5	8.7
4.3	7.2
4.0	6.7
3.8	6.4
3.3	5.8

or;

(ii) Calculate the allowable percent leaking doors using the following procedures:

(A) Measure the total emission rate of benzene, toluene, and xylene exiting the control device using Method 18 in appendix A to part 60 of this chapter 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; or

(B) Measure benzene, toluene, xylene, and benzene soluble organics in the gas in the collector main as described in the test plan submitted pursuant to paragraph (b) of this section; and

(C) Calculate the ratio (R) of benzene, toluene, and xylene to benzene soluble organics for the gas in the collector main, or as the sum of the outlet emission rates of benzene, toluene, and xylene, divided by the emission rate of benzene soluble organics as measured at the inlet to the control device; and

(D) Calculate the allowable percent leaking doors limit under the shed using the following equation:

$$PLD = \frac{[R+1](PLD_{std})^{2.5}]^{0.4}}{[(R+1-eff/100)]^{0.4}} \quad (\text{Eq. 2})$$

where

R=Ratio of measured emissions of benzene, toluene, and xylene to measured emissions of benzene soluble organics.

(iii) If the allowable percent leaking coke oven doors is calculated to exceed 15 percent leaking coke oven doors under paragraphs (c)(5)(i) or (c)(5)(ii) of this section, the owner or operator shall use 15 percent leaking coke oven doors for the purposes of this section.

(6) Monitor the parameters that affect the shed exhaust flow rate.

(7) The owner or operator may request alternative sampling procedures to those specified in paragraph (c)(5)(ii) (A) and (B) of this section by submitting details on the procedures and the rationale for their use to the Administrator. Alternative procedures shall not be used without approval from the Administrator.

(8) The owner or operator shall inform the Administrator of the schedule for conducting testing under the approved test plan and give the Administrator the opportunity to observe the tests.

(d) After calculating the alternative standard for allowable percent leaking coke oven doors, the owner or operator shall submit the following information to the Administrator:

(1) Identity of the coke oven battery;

(2) Visible emission limitation(s) for percent leaking doors currently applicable to the coke oven battery under this subpart and known future limitations for percent leaking coke oven doors;

(3) A written report including:

(i) Appropriate measurements and calculations used to derive the allowable percent leaking coke oven doors requested as the alternative standard;

(ii) Appropriate visible emission observations for the shed and opacity observations for the control device

for the shed, including an alternative opacity standard, if applicable, as described in paragraph (c)(3) of this section based on the highest 6-minute average; and

(iii) The parameter or parameters (e.g., fan power, damper position, or other) to be monitored and recorded to demonstrate that the exhaust flow rate measured during the test required by paragraph (c)(1) of this section is maintained, and the monitoring plan for such parameter(s).

(iv) If the application is for a new shed, one of the following demonstrations:

(A) A demonstration, using modeling procedures acceptable to the Administrator, that the expected concentrations of particulate emissions (including benzene soluble organics) under the shed at the bench level, when the proposed alternative standard was being met, would not exceed the expected concentrations of particulate emissions (including benzene soluble organics) if the shed were not present, the regulations under this subpart were met, and the battery was in compliance with federally enforceable limitations on pushing emissions; or

(B) A demonstration that the shed (including the evacuation system) has been designed in accordance with generally accepted engineering principles for the effective capture and control of particulate emissions (including benzene soluble organics) as measured at the shed's perimeter, its control device, and at the bench level.

(e) The Administrator will review the information and data submitted according to paragraph (d) of this section and may request additional information and data within 60 days of receipt of a complete request.

(1) Except for applications subject to paragraph (e)(3) of this section, the Administrator shall approve or disapprove an alternative standard as expeditiously as practicable. The Administrator shall approve an alternative standard, unless the Administrator determines that the approved test plan has not been followed, or any required calculations are incorrect, or any demonstration required under paragraph (d)(3)(iv) of this section does not satisfy the applicable criteria under that paragraph. If the alternative standard is disapproved, the Administrator will issue a written notification to the owner or operator within the 60-day period.

(2) The owner or operator shall comply with the applicable visible emission limitation for coke oven doors and all other requirements in this subpart prior to approval of an alternative standard. The owner or operator may apply for an alternative standard at any time after December 4, 1992.

(3) An application for an alternative standard to the standard in § 63.304(b)(1)(i) for any shed that is not a new shed that is filed on or before June 15, 1993, is deemed approved if a notice of disapproval has not been received 60 days after submission of a complete request. An approval under paragraph (e)(3) of this section shall be valid for a period of 1 year.

(4) Notwithstanding the provisions of paragraph (e) of this section, no alternative standard shall be approved that exceeds 15 percent leaking coke oven doors (yard equivalent).

(f) After approval of an alternative standard, the owner or operator shall comply with the following requirements:

(1) The owner or operator shall not discharge or allow to be discharged to the atmosphere coke oven emissions from coke oven doors under sheds that exceed an approved alternative standard for percent leaking coke oven doors under sheds.

(i) All visible emission observations for compliance determinations shall be performed by a certified observer.

(ii) Compliance with the alternative standard for doors shall be determined by a weekly performance test conducted according to the procedures and requirements in § 63.309(d)(5) and Method 303 in appendix A to this part.

(iii) If the visible emission limitation is achieved for 12 consecutive observations, compliance shall be determined by monthly rather than weekly performance tests. If any exceedance occurs during a performance test, weekly performance tests shall be resumed.

(iv) Observations taken at times other than those specified in paragraphs (f)(1)(ii) and (f)(1)(iii) of this section shall be subject to the provisions of § 63.309(f).

(2) The certified observer shall monitor the visible coke oven emissions escaping capture by the shed on a weekly basis. The provision in paragraph (f)(6) of this section is applicable if visible coke oven emissions are observed during periods when pushing emissions have cleared the shed.

(3) The owner or operator shall not discharge or allow to be discharged to the atmosphere any visible emissions from the shed's control device exhibiting more than 0 percent opacity unless an alternative limit has been approved under paragraph (e) of this section.

(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 (f)(4)(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.

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

(B) Each continuous opacity monitoring system shall be operated, calibrated, and maintained according to the procedures and requirements specified in part 52 of this chapter; 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 to part 60 of this chapter.

(5) The owner or operator shall visually inspect the structural integrity of the shed at least once a quarter for defects, such as deterioration of sheet metal (e.g., holes in the shed), that may allow the escape of visible emissions.

(i) The owner or operator shall record the time and date a defect is first observed, the time and date the

defect is corrected or repaired, and a brief description of repairs or corrective actions taken;

(ii) The owner or operator shall temporarily repair the defect as soon as possible, but no later than 5 days after detection of the defect;

(iii) Unless a major repair is required, the owner or operator shall perform a complete repair of the defect within 15 days of detection of the defect. If a major repair is required (e.g., replacement of large sections of the shed), the owner or operator shall submit a repair schedule to the enforcement agency.

(6) If the no visible emission limit for the shed specified in paragraph (f)(2) of this section is exceeded, the Administrator may require another test for the shed according to the approved test plan as specified in paragraph (c) of this section. If the certified observer observes visible coke oven emissions from the shed, except during periods of pushing or when pushing emissions have not cleared the shed, the owner or operator shall check to ensure that the shed and control device are working properly.

(7) The owner or operator shall monitor the parameter(s) affecting shed exhaust flow rate, and record data, in accordance with the approved monitoring plan for these parameters.

(8) The owner or operator shall not operate the exhaust system of the shed at an exhaust flow rate lower than that measured during the test required under paragraph (c)(1) of this section, as indicated by the monitored parameters.

(g) Each side of a battery subject to an alternative standard for doors under this section shall be treated separately for purposes of §§ 63.306(c) (plan implementation) and 63.306(d) (plan revisions) of this subpart. In making determinations under these provisions for the side of the battery subject to an alternative standard, the requirement that exceedances be independent shall not apply. During any period when work practices for doors for both sides of the battery are required to be implemented, § 63.306(a)(3) shall apply in the same manner as if the provisions of a plan for a single emissions point were required to be implemented. Exceedances of the alternative standard for percent leaking doors under a shed is the only provision in this section implicating implementation of work practice requirements.

(h) Multiple exceedances of the visible emission limitation for door leaks and/or the provisions of an alternative standard under this section for door leaks at a battery on a single day shall be considered a single violation.

§ 63.306 Work practice standards.

(a) Work practice plan. On or before November 15, 1993, each owner or operator shall prepare and submit to the Administrator a written emission control work practice plan for each coke oven battery. The plan shall be designed to achieve compliance with visible emission limitations for coke oven doors, topside port lids, offtake systems, and charging operations under this subpart or, for a coke oven battery not subject to visible emission limitations under this subpart, other federally enforceable visible emission limitations for these emission points.

(1) The work practice plan must address each of the topics specified in paragraph (b) of this section in sufficient detail and with sufficient specificity to allow the Administrator to evaluate the plan for completeness and enforceability.

(2) The Administrator may require revisions to the initial plan only where the Administrator finds either that the plan does not address each subject area listed in paragraph (b) of this section for each emission point subject to a visible emission standard under this subpart, or that the plan is unenforceable because it contains requirements that are unclear.

(3) During any period of time that an owner or operator is required to implement the provisions of a plan for a particular emission point, the failure to implement one or more obligations under the plan and/or any recordkeeping requirement(s) under § 63.311(f)(4) for the emission point during a particular day is a single violation.

(b) Plan components. The owner or operator shall organize the work practice plan to indicate clearly which parts of the plan pertain to each emission point subject to visible emission standards under this subpart. Each of the following provisions, at a minimum, shall be addressed in the plan:

(1) An initial and refresher training program for all coke plant operating personnel with responsibilities that impact emissions, including contractors, in job requirements related to emission control and the requirements of this subpart, including work practice requirements. Contractors with responsibilities that impact emission control may be trained by the owner or operator or by qualified contractor personnel; however, the owner or operator shall ensure that the contractor training program complies with the requirements of this section. The training program in the plan must include:

(i) A list, by job title, of all personnel that are required to be trained and the emission point(s) associated with each job title;

(ii) An outline of the subjects to be covered in the initial and refresher training for each group of personnel;

(iii) A description of the training method(s) that will be used (e.g., lecture, video tape);

(iv) A statement of the duration of initial training and the duration and frequency of refresher training;

(v) A description of the methods to be used at the completion of initial or refresher training to demonstrate and document successful completion of the initial and refresher training; and

(vi) A description of the procedure to be used to document performance of plan requirements pertaining to daily operation of the coke oven battery and its emission control equipment, including a copy of the form to be used, if applicable, as required under the plan provisions implementing paragraph (b)(7) of this section.

(2) Procedures for controlling emissions from coke oven doors on by-product coke oven batteries, including:

(i) A program for the inspection, adjustment, repair, and replacement of coke oven doors and jambs, and any other equipment for controlling emissions from coke oven doors, including a defined frequency of inspections, the method to be used to evaluate conformance with operating specifications for each type of equipment, and the method to be used to audit the effectiveness of the inspection and repair program for preventing exceedances;

(ii) Procedures for identifying leaks that indicate a failure of the emissions control equipment to function properly, including a clearly defined chain of command for communicating information on leaks and procedures for corrective action;

(iii) Procedures for cleaning all sealing surfaces of each door and jamb, including identification of the equipment that will be used and a specified schedule or frequency for the cleaning of sealing surfaces;

(iv) For batteries equipped with self-sealing doors, procedures for use of supplemental gasketing and luting materials, if the owner or operator elects to use such procedures as part of the program to prevent exceedances;

(v) For batteries equipped with hand-luted doors, procedures for luting and reluting, as necessary to prevent exceedances;

(vi) Procedures for maintaining an adequate inventory of the number of spare coke oven doors and jambs located onsite; and

(vii) Procedures for monitoring and controlling collecting main back pressure, including corrective action if pressure control problems occur.

(3) Procedures for controlling emissions from charging operations on by-product coke oven batteries, including:

(i) Procedures for equipment inspection, including the frequency of inspections, and replacement or repair of equipment for controlling emissions from charging, the method to be used to evaluate conformance with operating specifications for each type of equipment, and the method to be used to audit the effectiveness of the inspection and repair program for preventing exceedances;

(ii) Procedures for ensuring that the larry car hoppers are filled properly with coal;

(iii) Procedures for the alignment of the larry car over the oven to be charged;

(iv) Procedures for filling the oven (e.g., procedures for staged or sequential charging);

(v) Procedures for ensuring that the coal is leveled properly in the oven; and

(vi) Procedures and schedules for inspection and cleaning of offtake systems (including standpipes, standpipe caps, goosenecks, dampers, and mains), oven roofs, charging holes, topside port lids, the steam supply system, and liquor sprays.

(4) Procedures for controlling emissions from topside port lids on by-product coke oven batteries, including:

(i) Procedures for equipment inspection and replacement or repair of topside port lids and port lid mating and sealing surfaces, including the frequency of inspections, the method to be used to evaluate conformance with operating specifications for each type of equipment, and the method to be used to audit the effectiveness of the inspection and repair program for preventing exceedances; and

(ii) Procedures for sealing topside port lids after charging, for identifying topside port lids that leak, and procedures for resealing.

(5) Procedures for controlling emissions from offtake system(s) on by-product coke oven batteries, including:

(i) Procedures for equipment inspection and replacement or repair of offtake system components, including the frequency of inspections, the method to be used to evaluate conformance with operating specifications for each type of equipment, and the method to be used to audit the effectiveness of the inspection and repair program for preventing exceedances;

(ii) Procedures for identifying offtake system components that leak and procedures for sealing leaks that are detected; and

(iii) Procedures for dampering off ovens prior to a push.

(6) Procedures for controlling emissions from nonrecovery coke oven batteries including:

(i) Procedures for charging coal into the oven, including any special procedures for minimizing air infiltration during charging, maximizing the draft on the oven, and for replacing the door promptly after charging;

(ii) If applicable, procedures for the capture and control of charging emissions;

(iii) Procedures for cleaning coke from the door sill area for both sides of the battery after completing the pushing operation and before replacing the coke oven door;

(iv) Procedures for cleaning coal from the door sill area after charging and before replacing the push side door;

(v) Procedures for filling gaps around the door perimeter with sealant material, if applicable; and

(vi) Procedures for detecting and controlling emissions from smoldering coal.

(7) Procedures for maintaining, for each emission point subject to visible emission limitations under this subpart, a daily record of the performance of plan requirements pertaining to the daily operation of the coke oven battery and its emission control equipment, including:

(i) Procedures for recording the performance of such plan requirements; and

(ii) Procedures for certifying the accuracy of such records by the owner or operator.

(8) Any additional work practices or requirements specified by the Administrator according to paragraph (d) of this section.

(c) Implementation of work practice plans. On and after November 15, 1993, the owner or operator of a coke oven battery shall implement the provisions of the coke oven emission control work practice plan

according to the following requirements:

(1) The owner or operator of a coke oven battery subject to visible emission limitations under this subpart on and after November 15, 1993, shall:

(i) Implement the provisions of the work practice plan pertaining to a particular emission point following the second independent exceedance of the visible emission limitation for the emission point in any consecutive 6-month period, by no later than 3 days after receipt of written notification of the second such exceedance from the certified observer. For the purpose of this paragraph (c)(1)(i), the second exceedance is “independent” if either of the following criteria is met:

(A) The second exceedance occurs 30 days or more after the first exceedance;

(B) In the case of coke oven doors, topside port lids, and offtake systems, the 29-run average, calculated by excluding the highest value in the 30-day period, exceeds the value of the applicable emission limitation; or

(C) In the case of charging emissions, the 29-day logarithmic average, calculated in accordance with Method 303 in appendix A to this part by excluding the valid daily set of observations in the 30-day period that had the highest arithmetic average, exceeds the value of the applicable emission limitation.

(ii) Continue to implement such plan provisions until the visible emission limitation for the emission point is achieved for 90 consecutive days if work practice requirements are implemented pursuant to paragraph (c)(1)(i) of this section. After the visible emission limitation for a particular emission point is achieved for 90 consecutive days, any exceedances prior to the beginning of the 90 days are not included in making a determination under paragraph (c)(1)(i) of this section.

(2) The owner or operator of a coke oven battery not subject to visible emission limitations under this subpart until December 31, 1995, shall:

(i) Implement the provisions of the work practice plan pertaining to a particular emission point following the second exceedance in any consecutive 6-month period of a federally enforceable emission limitation for that emission point for coke oven doors, topside port lids, offtake systems, or charging operations by no later than 3 days after receipt of written notification from the applicable enforcement agency; and

(ii) Continue to implement such plan provisions for 90 consecutive days after the most recent written notification from the enforcement agency of an exceedance of the visible emission limitation.

(d) Revisions to plan. Revisions to the work practice emission control plan will be governed by the provisions in this paragraph (d) and in paragraph (a)(2) of this section.

(1) The Administrator may request the owner or operator to review and revise as needed the work practice emission control plan for a particular emission point if there are 2 exceedances of the applicable visible emission limitation in the 6-month period that starts 30 days after the owner or operator is required to implement work practices under paragraph (c) of this section. In the case of a coke oven battery subject to visual emission limitations under this subpart, the second exceedance must be independent under the criteria in paragraph (c)(1)(i) of this section.

(2) The Administrator may not request the owner or operator to review and revise the plan more than twice in any 12 consecutive month period for any particular emission point unless the Administrator disapproves the plan according to the provisions in paragraph (d)(6) of this section.

(3) If the certified observer calculates that a second exceedance (or, if applicable, a second independent exceedance) has occurred, the certified observer shall notify the owner or operator. No later than 10 days after receipt of such a notification, the owner or operator shall notify the Administrator of any finding of whether work practices are related to the cause or the solution of the problem. This notification is subject to review by the Administrator according to the provisions in paragraph (d)(6) of this section.

(4) The owner or operator shall submit a revised work practice plan within 60 days of notification from the Administrator under paragraph (d)(1) of this section, unless the Administrator grants an extension of time to submit the revised plan.

(5) If the Administrator requires a plan revision, the Administrator may require the plan to address a subject area or areas in addition to those in paragraph (b) of this section, if the Administrator determines that without plan coverage of such an additional subject area, there is a reasonable probability of further exceedances of the visible emission limitation for the emission point for which a plan revision is required.

(6) The Administrator may disapprove a plan revision required under paragraph (d) of this section if the Administrator determines that the revised plan is inadequate to prevent exceedances of the visible emission limitation under this subpart for the emission point for which a plan revision is required or, in the case of a battery not subject to visual emission limitations under this subpart, other federally enforceable emission limitations for such emission point. The Administrator may also disapprove the finding that may be submitted pursuant to paragraph (d)(3) of this section if the Administrator determines that a revised plan is needed to prevent exceedances of the applicable visible emission limitations.

§ 63.307 Standards for bypass/bleeder stacks.

(a) (1) Except as otherwise provided in this section, on or before March 31, 1994, the owner or operator of an existing by-product recovery battery for which a notification was not submitted under paragraph (e)(1) of this section shall install a bypass/bleeder stack flare system that is capable of controlling 120 percent of the normal gas flow generated by the battery, which shall thereafter be operated and maintained.

(2) Coke oven emissions shall not be vented to the atmosphere through bypass/bleeder stacks, except through the flare system or the alternative control device as described in paragraph (d) of this section.

(3) The owner or operator of a brownfield coke oven battery or a padup rebuild shall install such a flare system before startup, and shall properly operate and maintain the flare system.

(b) Each flare installed pursuant to this section shall meet the following requirements:

(1) Each flare shall be designed for a net heating value of 8.9 MJ/scm (240 Btu/scf) if a flare is steam-assisted or air-assisted, or a net value of 7.45 MJ/scm (200 Btu/scf) if the flare is non-assisted.

(2) Each flare shall have either a continuously operable pilot flame or an electronic igniter that meets the

requirements of paragraphs (b)(3) and (b)(4) of this section.

(3) Each electronic igniter shall meet the following requirements:

(i) Each flare shall be equipped with at least two igniter plugs with redundant igniter transformers;

(ii) The ignition units shall be designed failsafe with respect to flame detection thermocouples (i.e., any flame detection thermocouples are used only to indicate the presence of a flame, are not interlocked with the ignition unit, and cannot deactivate the ignition system); and

(iii) Integral battery backup shall be provided to maintain active ignition operation for a minimum of 15 minutes during a power failure.

(iv) Each electronic igniter shall be operated to initiate ignition when the bleeder valve is not fully closed as indicated by an "OPEN" limit switch.

(4) Each flare installed to meet the requirements of this paragraph (b) that does not have an electronic igniter shall be operated with a pilot flame present at all times as determined by § 63.309(h)(2).

(c) Each flare installed to meet the requirements of this section shall be operated with no visible emissions, as determined by the methods specified in § 63.309(h)(1), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

(d) As an alternative to the installation, operation, and maintenance of a flare system as required in paragraph (a) of this section, the owner or operator may petition the Administrator for approval of an alternative control device or system that achieves at least 98 percent destruction or control of coke oven emissions vented to the alternative control device or system.

(e) The owner or operator of a by-product coke oven battery is exempt from the requirements of this section if the owner or operator:

(1) Submits to the Administrator, no later than November 10, 1993, a formal commitment to close the battery permanently; and

(2) Closes the battery permanently no later than December 31, 1995. In no case may the owner or operator continue to operate a battery for which a closure commitment is submitted, past December 31, 1995.

(f) Any emissions resulting from the installation of flares (or other pollution control devices or systems approved pursuant to paragraph (d) of this section) shall not be used in making new source review determinations under part C and part D of title I of the Act.

§ 63.308 Standards for collecting mains.

(a) On and after November 15, 1993, the owner or operator of a by-product coke oven battery shall inspect the collecting main for leaks at least once daily according to the procedures in Method 303 in appendix A to this part.

(b) The owner or operator shall record the time and date a leak is first observed, the time and date the leak is temporarily sealed, and the time and date of repair.

(c) The owner or operator shall temporarily seal any leak in the collecting main as soon as possible after detection, but no later than 4 hours after detection of the leak.

(d) The owner or operator shall initiate a collecting main repair as expeditiously as possible, but no later than 5 calendar days after initial detection of the leak. The repair shall be completed within 15 calendar days after initial detection of the leak unless an alternative schedule is approved by the Administrator.

§ 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.

(1) Each performance test is to be conducted according to the procedures and requirements in this section and in Method 303 or 303A in appendix A to this part or Methods 9 and 22 in appendix A to part 60 of this chapter (where applicable).

(2) Each performance test is to be conducted by a certified observer.

(3) The certified observer shall complete any reasonable safety training program offered by the owner or operator prior to conducting any performance test at a coke oven battery.

(4) Except as otherwise provided in paragraph (a)(5) of this section, the owner or operator shall pay an inspection fee to the enforcement agency each calendar quarter to defray the costs of the daily performance tests required under paragraph (a) of this section.

(i) The inspection fee shall be determined according to the following formula:

$$F = H \times S \quad (\text{Eq. 3})$$

where

F=Fees to be paid by owner or operator.

H=Total person hours for inspections: 4 hours for 1 coke oven battery, 6.25 hours for 2 coke oven batteries, 8.25 hours for 3 coke oven batteries. For more than 3 coke oven batteries, use these hours to calculate the appropriate estimate of person hours.

S=Current average hourly rate for private visible emission inspectors in the relevant market.

(ii) The enforcement agency may revise the value for H in equation 3 within 3 years after October 27, 1993 to reflect the amount of time actually required to conduct the inspections required under paragraph (a) of this section.

(iii) The owner or operator shall not be required to pay an inspection fee (or any part thereof) under paragraph (a)(4) of this section, for any monitoring or inspection services required by paragraph (a) of this section that the owner or operator can demonstrate are covered by other fees collected by the enforcement agency.

(iv) Upon request, the enforcement agency shall provide the owner or operator information concerning the inspection services covered by any other fees collected by the enforcement agency, and any information relied upon under paragraph (a)(4)(ii) of this section.

(5) (i) The EPA shall be the enforcement agency during any period of time that a delegation of enforcement authority is not in effect or a withdrawal of enforcement authority under § 63.313 is in effect, and the Administrator is responsible for performing the inspections required by this section, pursuant to § 63.313(b).

(ii) Within thirty (30) days of receiving notification from the Administrator that the EPA is the enforcement agency for a coke oven battery, the owner or operator shall enter into a contract providing for the inspections and performance tests required under this section to be performed by a Method 303 certified observer. The inspections and performance tests will be conducted at the expense of the owner or operator, during the period that the EPA is the implementing agency.

(b) The enforcement agency shall commence daily performance tests on the applicable date specified in §§ 63.300 (a) or (c).

(c) The certified observer shall conduct each performance test according to the requirements in this paragraph:

(1) The certified observer shall conduct one run each day to observe and record visible emissions from each coke oven door (except for doors covered by an alternative standard under § 63.305), topside port lid, and offtake system on each coke oven battery. The certified observer also shall conduct five runs to observe and record the seconds of visible emissions per charge for five consecutive charges from each coke oven battery. The observer may perform additional runs as needed to obtain and record a visible emissions value (or set of values) for an emission point that is valid under Method 303 or Method 303A in appendix A to this part. Observations from fewer than five consecutive charges shall constitute a valid set of charging observations only in accordance with the procedures and conditions specified in sections 3.8 and 3.9 of Method 303 in appendix A to this part.

(2) If a valid visible emissions value (or set of values) is not obtained for a performance test, there is no compliance determination for that day. Compliance determinations will resume on the next day that a valid visible emissions value (or set of values) is obtained.

(3) After each performance test for a by-product coke oven battery, the certified observer shall check and record the collecting main pressure according to the procedures in section 6.3 of Method 303 in appendix A to this part.

- (i) The owner or operator shall demonstrate pursuant to Method 303 in appendix A to this part the accuracy of the pressure measurement device upon request of the certified observer;
 - (ii) The owner or operator shall not adjust the pressure to a level below the range of normal operation during or prior to the inspection;
- (4) The certified observer shall monitor visible emissions from coke oven doors subject to an alternative standard under § 63.305 on the schedule specified in § 63.305(f).
- (5) If applicable, the certified observer shall monitor the opacity of any emissions escaping the control device for a shed covering doors subject to an alternative standard under § 63.305 on the schedule specified in § 63.305(f).
- (6) In no case shall the owner or operator knowingly block a coke oven door, or any portion of a door for the purpose of concealing emissions or preventing observations by the certified observer.
- (d) Using the observations obtained from each performance test, the enforcement agency shall compute and record, in accordance with the procedures and requirements of Method 303 or 303A in appendix A to this part, for each day of operations on which a valid emissions value (or set of values) is obtained:
- (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 4.5.3.2, 5.6.5.2, and 5.6.6.2 of Method 303 (or section 3.4.3.2 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 3.9 of Method 303 in appendix A to this part;
 - (3) For a battery subject to an alternative emission limitation for coke oven doors on by-product coke oven batteries pursuant to § 63.305, the 30-run rolling average of the percent leaking coke oven doors for any side of the battery not subject to such alternative emission limitation;
 - (4) For a by-product coke oven battery subject to the small battery emission limitation for coke oven doors pursuant to § 63.304(b)(7), the 30-run rolling average of the number of leaking coke oven doors;
 - (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 to part 60 of this chapter, and visible emissions from the shed using Method 22 in appendix A to part 60 of this chapter;
- (e) The certified observer shall make available to the implementing agency as well as to the owner or operator, a copy of the daily inspection results by the end of the day and shall make available the calculated rolling average for each emission point to the owner or operator as soon as practicable following each performance test. The information provided by the certified observer is not a compliance determination. 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.

(f) Compliance shall not be determined more often than the schedule provided for performance tests under this section. If additional valid emissions observations are obtained (or in the case of charging, valid sets of emission observations), the arithmetic average of all valid values (or valid sets of values) obtained during the day shall be used in any computations performed to determine compliance under paragraph (d) of this section or determinations under § 63.306.

(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 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.

(h) For a flare installed to meet the requirements of § 63.307(b):

(1) Compliance with the provisions in § 63.307(c) (visible emissions from flares) shall be determined using Method 22 in appendix A to part 60 of this chapter, with an observation period of 2 hours; and

(2) Compliance with the provisions in § 63.307(b)(4) (flare pilot light) shall be determined using a thermocouple or any other equivalent device.

(i) No observations obtained during any program for training or for certifying observers under this subpart shall be used to determine compliance with the requirements of this subpart or any other federally enforceable standard.

§ 63.310 Requirements for startups, shutdowns, and malfunctions.

(a) At all times including periods of startup, shutdown, and malfunction, the owner or operator shall operate and maintain the coke oven battery and its pollution control equipment required under this subpart, in a manner consistent with good air pollution control practices for minimizing emissions to the levels required by any applicable performance standards under this subpart. Failure to adhere to the requirement of this paragraph shall not constitute a separate violation if a violation of an applicable performance or work practice standard has also occurred.

(b) Each owner or operator of a coke oven battery shall develop and implement according to paragraph (c) of this section, a written startup, shutdown, and malfunction plan that describes procedures for operating the battery, including associated air pollution control equipment, during a period of a startup, shutdown, or malfunction in a manner consistent with good air pollution control practices for minimizing emissions, and procedures for correcting malfunctioning process and air pollution control equipment as quickly as practicable.

(c) During a period of startup, shutdown, or malfunction:

(1) The owner or operator of a coke oven battery shall operate the battery (including associated air pollution control equipment) in accordance with the procedure specified in the startup, shutdown, and malfunction plan; and

(2) Malfunctions shall be corrected as soon as practicable after their occurrence, in accordance with the plan.

(d) In order for the provisions of paragraph (i) of this section to apply with respect to the observation (or set of observations) for a particular day, notification of a startup, shutdown, or a malfunction shall be made by the owner or operator:

(1) If practicable, to the certified observer if the observer is at the facility during the occurrence; or

(2) To the enforcement agency, in writing, within 24 hours of the occurrence first being documented by a company employee, and if the notification under paragraph (d)(1) of this section was not made, an explanation of why no such notification was made.

(e) Within 14 days of the notification made under paragraph (d) of this section, or after a startup or shutdown, the owner or operator shall submit a written report to the applicable permitting authority that:

(1) Describes the time and circumstances of the startup, shutdown, or malfunction; and

(2) Describes actions taken that might be considered inconsistent with the startup, shutdown, or malfunction plan.

(f) The owner or operator shall maintain a record of internal reports which form the basis of each malfunction notification under paragraph (d) of this section.

(g) To satisfy the requirements of this section to develop a startup, shutdown, and malfunction plan, the owner or operator may use the standard operating procedures manual for the battery, provided the manual meets all the requirements for this section and is made available for inspection at reasonable times when requested by the Administrator.

(h) The Administrator may require reasonable revisions to a startup, shutdown, and malfunction plan, if the Administrator finds that the plan:

(1) Does not address a startup, shutdown, or malfunction event that has occurred;

(2) Fails to provide for the operation of the source (including associated air pollution control equipment) during a startup, shutdown, or malfunction event in a manner consistent with good air pollution control practices for minimizing emissions; or

(3) Does not provide adequate procedures for correcting malfunctioning process and/or air pollution control equipment as quickly as practicable.

(i) If the owner or operator demonstrates to the satisfaction of the Administrator that a startup, shutdown, or malfunction has occurred, then an observation occurring during such startup, shutdown, or malfunction shall not:

(1) Constitute a violation of relevant requirements of this subpart;

(2) Be used in any compliance determination under § 63.309; or

(3) Be considered for purposes of § 63.306, until the Administrator has resolved the claim that a startup, shutdown, or malfunction has occurred. If the Administrator determines that a startup, shutdown, or malfunction has not occurred, such observations may be used for purposes of § 63.306, regardless of whether the owner or operator further contests such determination. The owner's or operator's receipt of written notification from the Administrator that a startup, shutdown, or malfunction has not occurred will serve, where applicable under § 63.306, as written notification from the certified observer that an exceedance has occurred.

§ 63.311 Reporting and recordkeeping requirements.

(a) After the effective date of an approved permit in a State under part 70 of this chapter, the owner or operator shall submit all notifications and reports required by this subpart to the State permitting authority. Use of information provided by the certified observer shall be a sufficient basis for notifications required under § 70.5(c)(9) of this chapter and the reasonable inquiry requirement of § 70.5(d) of this chapter.

(b) Initial compliance certification. The owner or operator of an existing or new coke oven battery shall provide a written statement(s) to certify compliance to the Administrator within 45 days of the applicable compliance date for the emission limitations or requirements in this subpart. The owner or operator shall include the following information in the initial compliance certification:

(1) Statement, signed by the owner or operator, certifying that a bypass/bleeder stack flare system or an approved alternative control device or system has been installed as required in § 63.307; and

(2) Statement, signed by the owner or operator, certifying that a written startup, shutdown, and malfunction plan has been prepared as required in § 63.310.

(c) Notifications. The owner or operator shall provide written notification(s) to the Administrator of:

(1) Intention to construct a new coke oven battery (including reconstruction of an existing coke oven battery and construction of a greenfield coke oven battery), a brownfield coke oven battery, or a padup rebuild coke oven battery, including the anticipated date of startup; and

(2) Election to meet emission limitation(s) in this subpart as follows:

(i) Notification of election to meet the emission limitations in §§ 63.304(b)(1) or 63.304(c) either in lieu of or in addition to the applicable emission limitations in § 63.302(a) or § 63.303(a) must be received by the Administrator on or before November 15, 1993; or

(ii) Notification of election to meet the emission limitations in § 63.302(a)(1) or § 63.303(a), as applicable, must be received by the Administrator on or before December 31, 1995; and

(iii) Notification of election to meet the emission limitations in § 63.304(b) (2) through (4) and § 63.304(c) or election to meet residual risk standards to be developed according to section 112(f) of the Act in lieu of the emission standards in § 63.304 must be received on or before January 1, 1998.

(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 a startup, shutdown, or malfunction event did not occur for a coke oven battery during the reporting period or that a startup, shutdown, and malfunction event did occur and a report was submitted according to the requirements in § 63.310(e); and

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

(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 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 § 302.6 of this chapter.

(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 § 70.6(a)(3)(ii)(B) of this chapter. Copies of the work practice plan developed under § 63.306 and the startup, shutdown, and malfunction plan developed under § 63.310 shall be kept onsite at all times. The owner or operator shall maintain the following information:

(1) For nonrecovery coke oven batteries,

(i) Records of daily pressure monitoring, if applicable according to § 63.303(a)(1)(ii) or § 63.303(b)(1)(ii);

(ii) Records demonstrating the performance of work practice requirements according to § 63.306(b)(7); and

(iii) Design characteristics of each emission control system for the capture and collection of charging emissions, as required by § 63.303(b)(2).

(2) For an approved alternative emission limitation according to § 63.305;

(i) Monitoring records for parameter(s) that indicate the exhaust flow rate is maintained;

(ii) If applicable under § 63.305(f)(4)(i);

(A) Records of opacity readings from the continuous opacity monitor for the control device for the shed; and

(B) Records that demonstrate the continuous opacity monitoring system meets the requirements of Performance Specification 1 in appendix B to part 60 of this chapter and the operation and maintenance requirements in part 52 of this chapter; and

(iii) Records of quarterly visual inspections as specified in § 63.305(f)(5), including the time and date a defect is detected and repaired.

(3) A copy of the work practice plan required by § 63.306 and any revision to the plan;

(4) If the owner or operator is required under § 63.306(c) to implement the provisions of a work practice plan for a particular emission point, the following records regarding the implementation of plan requirements for that emission point during the implementation period;

(i) Copies of all written and audiovisual materials used in the training, the dates of each class, the names of the participants in each class, and documentation that all appropriate personnel have successfully completed the training required under § 63.306(b)(1);

(ii) The records required to be maintained by the plan provisions implementing § 63.306(b)(7);

(iii) Records resulting from audits of the effectiveness of the work practice program for the particular emission point, as required under §§ 63.306(b)(2)(i), 63.306(b)(3)(i), 63.306(b)(4)(i), or 63.306(b)(5)(i); and

(iv) If the plan provisions for coke oven doors must be implemented, records of the inventory of doors and jambs as required under § 63.306(b)(2)(vi); and

(5) The design drawings and engineering specifications for the bypass/bleeder stack flare system or approved alternative control device or system as required under § 63.307.

(6) Records specified in § 63.310(f) regarding the basis of each malfunction notification.

(g) Records required to be maintained and reports required to be filed with the Administrator under this subpart shall be made available in accordance with the requirements of this paragraph by the owner or operator to the authorized collective bargaining representative of the employees at a coke oven battery, for inspection and copying.

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

(2) The owner or operator shall produce the reports for inspection and copying within a reasonable period of time, not to exceed 30 days. A reasonable fee may be charged for copying (except for the first copy of any document), which shall not exceed the copying fee charged by the Administrator under part 2 of this chapter;

(3) Nothing in paragraph (g) of this section shall require the production for inspection or copying of any portion of a document that contains trade secrets or confidential business information that the Administrator would be prohibited from disclosing to the public under part 2 of this chapter; and

(4) The inspection or copying of a document under paragraph (g) of this section shall not in any way affect any property right of the owner or operator in such document under laws for the protection of intellectual property, including the copyright laws.

§ 63.312 Existing regulations and requirements.

(a) The owner or operator shall comply with all applicable State implementation plan emission limits and (subject to any expiration date) all federally enforceable emission limitations which are contained in an order, decree, permit, or settlement agreement for the control of emissions from offtake systems, topside port lids, coke oven doors, and charging operations in effect on September 15, 1992, or which have been modified according to the provisions of paragraph (c) of this section.

(b) Nothing in this subpart shall affect the enforcement of such State implementation plan emission limitations (or, subject to any expiration date, such federally enforceable emission limitations contained in an order, decree, permit, or settlement agreement) in effect on September 15, 1992, or which have been modified according to the provisions in paragraph (c) of this section.

(c) No such State implementation plan emission limitation (or, subject to any expiration date, such federally enforceable emission limitation contained in an order, decree, permit, or settlement agreement) in effect on September 15, 1992, may be modified under the Act unless:

(1) Such modification is consistent with all requirements of section 110 of the Act; and either

(i) Such modification ensures that the applicable emission limitations and format (e.g., single pass v. multiday average) in effect on September 15, 1992, will continue in effect; or

(ii) Such modification includes a change in the method of monitoring (except frequency unless frequency was indicated in the State implementation plan, or subject to any expiration date, other federally enforceable requirements contained in an order, decree, permit, or settlement agreement) that is more stringent than the method of monitoring in effect on September 15, 1992, and that ensures coke oven emission reductions greater than the emission reductions required on September 15, 1992. The burden of proof in demonstrating the stringency of the methods of monitoring is borne by the party requesting the modification and must be made to the satisfaction of the Administrator; or

(iii) Such modification makes the emission limitations more stringent while holding the format unchanged, makes the format more stringent while holding the emission limitations unchanged, or makes both more stringent.

(2) Any industry application to make a State implementation plan revision or other adjustment to account for differences between Method 303 in appendix A to this part and the State's method based on paragraph (c)(1)(ii) of this section shall be submitted within 12 months after October 27, 1993.

(d) Except as specified in § 63.307(f), nothing in this subpart shall limit or affect any authority or obligation of Federal, State, or local agencies to establish emission limitations or other requirements more stringent than those specified in this subpart.

(e) Except as provided in § 63.302(c), section 112(g) of the Act shall not apply to sources subject to this

subpart.

§ 63.313 Delegation of authority.

(a) In delegating implementation and enforcement authority to a State under section 112(d) of the Act, the authorities contained in paragraph (c) of this section shall be retained by the Administrator and not transferred to a State.

(b) Whenever the Administrator learns that a delegated agency has not fully carried out the inspections and performance tests required under § 63.309 for each applicable emission point of each battery each day, the Administrator shall immediately notify the agency. Unless the delegated agency demonstrates to the Administrator's satisfaction within 15 days of notification that the agency is consistently carrying out the inspections and performance tests required under § 63.309 in the manner specified in the preceding sentence, the Administrator shall notify the coke oven battery owner or operator that inspections and performance tests shall be carried out according to § 63.309(a)(5). When the Administrator determines that the delegated agency is prepared to consistently perform all required inspections and performance tests each day, the Administrator shall give the coke oven battery owner or operator at least 15 days notice that implementation will revert back to the previously delegated agency.

(c) Authorities which will not be delegated to States:

(1) § 63.302(d);

(2) § 63.304(b)(6);

(3) §§ 63.305 (b), (d) and (e);

(4) § 63.307(d); and

(5) Section 2 of Method 303 in appendix A to this part.

(d) The authority to enforce this subpart is delegated to the States of: [Reserved]

Appendix A to Subpart L-Operating Coke Oven Batteries as of April 1, 1992

No	Plant	Battery
1	ABC Coke, Tarrant, AL	A
		5
		6
2	Acme Steel, Chicago, IL	1
		2
3	Armco, Inc., Middletown, OH	1
		2

4	Armco, Inc., Ashland, KY	3 3
5	Bethlehem Steel, Bethlehem, PA	4 A
6	Bethlehem Steel, Burns Harbor, IN	2 3 1
7	Bethlehem Steel, Lackawanna, NY	2 7
8	Citizens Gas, Indianapolis, IN	8 E
9	Empire Coke, Holt, AL	H 1 1
10	Erie Coke, Erie, PA	2 A B
11	Geneva Steel, Provo, UT	1
12	Gulf States Steel, Gadsden, AL	2 3 4 2
13	Inland Steel, East Chicago, IN	3 6
14	Jewell Coal and Coke, Vansant, VA	7 8 9 10 11 2
15	Koppers, Woodward, AL	3A 3B 3C 1

		2A
		2B
		4A
		4B
		5
16	LTV Steel, Cleveland, OH	6
		7
17	LTV Steel, Pittsburgh, PA	P1
		P2
		P3N
		P3S
		P4
18	LTV Steel, Chicago, IL	2
19	LTV Steel, Warren, OH	4
20	National Steel, Ecorse, MI	5
21	National Steel, Granite City, IL	A
		B
22	New Boston Coke, Portsmouth, OH	1
23	Sharon Steel, Monessen, PA	1B
		2
24	Shenango, Pittsburgh, PA	1
		4
25	Sloss Industries, Birmingham, AL	3
		4
		5
26	Toledo Coke, Toledo, OH	C
27	Tonawanda Coke, Buffalo, NY	1
28	USX, Clairton, PA	1
		2
		3
		7
		8
		9
		13
		14

		15
		19
		20
		B
29	USX, Gary, IN	2
		3
		5
		7
30	Wheeling-Pittsburgh, E Steubenville, WV	1
		2
		3
		8

5. Appendix A to part 63 is amended by adding in numerical order Method 303 and Method 303A as follows:

Appendix A-Test Methods * * * * *

METHOD 303-DETERMINATION OF VISIBLE EMISSIONS FROM BY-PRODUCT COKE OVEN BATTERIES

1. Applicability and Principle

1.1 Applicability. This method applies to the determination of visible emissions (VE) from the following by-product coke oven battery sources: Charging systems during charging, doors, topside port lids, and offtake systems on operating coke ovens; and collecting mains. In order for the test method results to be indicative of plant performance, the time of day of the run should vary.

1.2 Principle. A certified observer visually determines the VE from coke oven battery sources (the certification procedures are described in section 2). This method does not require that opacity of emissions be determined or that magnitude be differentiated.

1.3 Definitions.

1.3.1 Bench. The platform structure in front of the oven doors.

1.3.2 By-product Coke Oven Battery. 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.

1.3.3 Charge or Charging Period. The period of time that commences when coal begins to flow into an oven through a topside port and ends when the last charging port is recapped.

1.3.4 Charging System. An apparatus used to charge coal to a coke oven (e.g., a larry car for wet coal charging systems).

1.3.5 Coke Oven Door. Each end enclosure on the pusher side and the coking side of an oven. The chuck, or leveler-bar, door is considered part of the pusher side door. The coke oven door area includes the entire area on the vertical face of a coke oven between the bench and the top of the battery between two adjacent buck stays.

1.3.6 Coke Side. The side of a battery from which the coke is discharged from ovens at the end of the coking cycle.

1.3.7 Collecting Main. Any apparatus that is connected to one or more offtake systems and that provides a passage for conveying gases under positive pressure from the by-product coke oven battery to the by-product recovery system.

1.3.8 Consecutive Charges. Charges observed successively, excluding any charge during which the observer's view of the charging system or topside ports is obscured.

1.3.9 Damper-off. To close off the gas passage between the coke oven and the collecting main, with no flow of raw coke oven gas from the collecting main into the oven or into the oven's offtake system(s).

1.3.10 Decarbonization Period. The period of time for combusting oven carbon that commences when the oven lids are removed from an empty oven or when standpipe caps of an oven are opened. The period ends with the initiation of the next charging period for that oven.

1.3.11 Larry Car. An apparatus used to charge coal to a coke oven with a wet coal charging system.

1.3.12 Log Average. Logarithmic average as calculated in section 3.8.

1.3.13 Offtake System. Any individual oven apparatus that is stationary and provides a passage for gases from an oven to a coke oven battery collecting main or to another oven. Offtake system components include the standpipe and standpipe caps, goosenecks, stationary jumper pipes, mini-standpipes, and standpipe and gooseneck connections.

1.3.14 Operating Oven. Any oven not out of operation for rebuild or maintenance work extensive enough to require the oven to be skipped in the charging sequence.

1.3.15 Oven. A chamber in the coke oven battery in which coal undergoes destructive distillation to produce coke.

1.3.16 Push Side. The side of the battery from which the coke is pushed from ovens at the end of the coking cycle.

1.3.17 Run. The observation of visible emissions from topside port lids, offtake systems, coke oven doors, or the charging of a single oven in accordance with this method.

1.3.18 Shed. Structures for capturing coke oven emissions on the coke side or pusher side of the coke

oven battery, which route the emissions to a control device or system.

1.3.19 Standpipe Cap. An apparatus used to cover the opening in the gooseneck of an offtake system.

1.3.20 Topside Port Lid. A cover, removed during charging or decarbonizing, that is placed over the opening through which coal can be charged into the oven of a by-product coke oven battery.

1.3.21 Traverse Time. Accumulated time for a traverse as measured by a stopwatch. Traverse time includes time to stop and write down oven numbers but excludes time waiting for obstructions of view to clear or for time to walk around obstacles.

1.3.22 Visible Emissions (VE). Any emission seen by the unaided (except for corrective lenses) eye, excluding steam or condensing water.

2. Observer Certification

2.1 Certification Procedures. This method requires only the determination of whether VE occur and does not require the determination of opacity levels; therefore, observer certification according to Method 9 in appendix A to part 60 of this chapter is not required to obtain certification under this method. However, in order to receive Method 303 observer certification, the first-time observer (trainee) shall have attended the lecture portion of the Method 9 certification course. In addition, the trainee shall successfully complete the Method 303 training course, satisfy the field observation requirement, and demonstrate adequate performance and sufficient knowledge of Method 303. The Method 303 training course shall be conducted by or under the sanction of the EPA and shall consist of classroom instruction and field observations, and a proficiency test.

2.1.1 The classroom instruction shall familiarize the trainees with Method 303 through lecture, written training materials, and a Method 303 demonstration video. A successful completion of the classroom portion of the Method 303 training course shall be demonstrated by a perfect score on a written test. If the trainee fails to answer all of the questions correctly, the trainee may review the appropriate portion of the training materials and retake the test.

2.1.2 The field observations shall be a minimum of 12 hours and shall be completed before attending the Method 303 certification course. Trainees shall observe the operation of a coke oven battery as it pertains to Method 303, including topside operations, and shall also practice conducting Method 303 or similar methods. During the field observations, trainees unfamiliar with coke battery operations shall receive instruction from an experienced coke oven observer familiar with Method 303 or similar methods and the operation of coke batteries. The trainee must verify completion of at least 12 hours of field observation prior to attending the Method 303 certification course.

2.1.3 All trainees must demonstrate proficiency in the application of Method 303 to a panel of three certified Method 303 observers, including an ability to differentiate coke oven emissions from condensing water vapor and smoldering coal. Each panel member shall have at least 120 days experience in reading visible emissions from coke ovens. The visible emissions inspections that will satisfy the experience requirement must be inspections of coke oven battery fugitive emissions from the emission points subject to emission standards under subpart L of this part (i.e., coke oven doors, topside port lids, offtake system(s), and charging operations), using either Method 303 or predecessor State or local test methods.

A “day’s experience” for a particular inspection is a day on which one complete inspection was performed for that emission point under Method 303 or a predecessor State or local method. A “day’s experience” does not mean 8 or 10 hours performing inspections, or any particular time expressed in minutes or hours that may have been spent performing them. Thus, it would be possible for an individual to qualify as a Method 303 panel member for some emission points, but not others (e.g., an individual might satisfy the experience requirement for coke oven doors, but not topside port lids). Until November 15, 1994, the EPA may waive the certification requirement (but not the experience requirement) for panel members. The composition of the panel shall be approved by the EPA. The panel shall observe the trainee in a series of training runs and a series of certification runs. There shall be a minimum of 1 training run for doors, topside port lids, and offtake systems, and a minimum of 5 training runs (i.e., 5 charges) for charging. During training runs, the panel can advise the trainee on proper procedures. There shall be a minimum of 3 certification runs for doors, topside port lids, and offtake systems, and a minimum of 15 certification runs for charging (i.e., 15 charges). The certification runs shall be unassisted. Following the certification test runs, the panel shall approve or disapprove certification based on the trainee’s performance during the certification runs. To obtain certification, the trainee shall demonstrate to the satisfaction of the panel a high degree of proficiency in performing Method 303. To aid in evaluating the trainee’s performance, a checklist, provided by the EPA, will be used.

Caution: Because coke oven batteries have hazardous environments, the training materials and the field training shall cover the precautions required by the company to address health and safety hazards. Special emphasis shall be given to the Occupational Safety and Health Administration (OSHA) regulations pertaining to exposure of coke oven workers (see Citation 3 in the Bibliography). In general, the regulation requires that special fire-retardant clothing and respirators be worn in certain restricted areas of the coke oven battery. The OSHA regulation also prohibits certain activities, such as chewing gum, smoking, and eating in these areas.

2.2 Observer Certification/Recertification. The coke oven observer certification is valid for 1 year from date of issue. The observer shall recertify annually by viewing the training video and answering all of the questions on the certification test correctly. Every 3 years, an observer shall be required to pass the proficiency test in section 2.1.3 in order to be certified.

2.3 The EPA (or applicable enforcement agency) shall maintain records reflecting a certified observer’s successful completion of the proficiency test, which shall include the completed proficiency test checklists for the certification runs.

2.4 An owner or operator of a coke oven battery subject to subpart L of this part may observe a training and certification program under this section.

3. Procedure for Determining VE From Charging Systems During Charging

3.1 Number of Oven Charges. Refer to § 63.309(c)(1) of this part for the number of oven charges to observe. The observer shall observe consecutive charges. Charges that are nonconsecutive can only be observed when necessary to replace observations terminated prior to the completion of a charge because of visual interferences. (See section 3.5.)

3.2 Data Records. Record all the information requested at the top of the charging system inspection sheet (Figure 303-1). For each charge, record the identification number of the oven being charged, the

approximate beginning time of the charge, and the identification of the larry car used for the charge.

3.3 Observer Position. Stand in an area or move to positions on the topside of the coke oven battery with an unobstructed view of the entire charging system. For wet coal charging systems or non-pipeline coal charging systems, the observer should have an unobstructed view of the emission points of the charging system, including larry car hoppers, drop sleeves, and the topside ports of the oven being charged. Some charging systems are configured so that all emission points can only be seen from a distance of five ovens. For other batteries, distances of 8 to 12 ovens are adequate.

3.4 Observation. The charging period begins when coal begins to flow into the oven and ends when the last charging port is recapped. During the charging period, observe all of the potential sources of VE from the entire charging system. For wet coal charging systems or non-pipeline coal charging systems, sources of VE typically include the larry car hoppers, drop sleeves, slide gates, and topside ports on the oven being charged. Any VE from an open standpipe cap on the oven being charged is included as charging VE.

3.4.1 Using an accumulative-type stopwatch with unit divisions of at least 0.5 seconds, determine the total time VE are observed as follows. Upon observing any VE emerging from any part of the charging system, start the stopwatch. Stop the watch when VE are no longer observed emerging, and restart the watch when VE reemerges.

3.4.2 When VE occur simultaneously from several points during a charge, consider the sources as one. Time overlapping VE as continuous VE. Time single puffs of VE only for the time it takes for the puff to emerge from the charging system. Continue to time VE in this manner for the entire charging period. Record the accumulated time to the nearest 0.5 second under "Visible emissions, seconds" on Figure 303-1.

3.5 Visual Interference. If fugitive VE from other sources at the coke oven battery site (e.g., door leaks or condensing water vapor from the coke oven wharf) prevent a clear view of the charging system during a charge, stop the stopwatch and make an appropriate notation under "Comments" on Figure 303-1. Label the observation an observation of an incomplete charge, and observe another charge to fulfill the requirements of section 3.1.

3.6 VE Exemptions. Do not time the following VE:

3.6.1 The VE from burning or smoldering coal spilled on top of the oven, topside port lid, or larry car surfaces;

Note: The VE from smoldering coal are generally white or gray. These VE generally have a plume of less than 1 meter long. If the observer cannot safely and with reasonable confidence determine that VE are from charging, do not count them as charging emissions.

3.6.2 The VE from the coke oven doors or from the leveler bar; or

3.6.3 The VE that drift from the top of a larry car hopper if the emissions had already been timed as VE from the drop sleeve.

Note: When the slide gate on a larry car hopper closes after the coal has been added to the oven, the seal may not be airtight. On occasions, a puff of smoke observed at the drop sleeves is forced past the slide gate up into the larry car hopper and may drift from the top; time these VE either at the drop sleeves or the hopper. If the larry car hopper does not have a slide gate or the slide gate is left open or partially closed, VE may quickly pass through the larry car hopper without being observed at the drop sleeves and will appear as a strong surge of smoke; time these as charging VE.

3.7 Total Time Record. Record the total time that VE were observed for each charging operation in the appropriate column on the charging system inspection sheet.

3.8 Five charging observations (runs) obtained in accordance with this method shall be considered a valid set of observations for that day. No observation of an incomplete charge shall be included in a daily set of observations that is lower than the lowest reading for a complete charge. If both complete and incomplete charges have been observed, the daily set of observations shall include the five highest values observed. Four or three charging observations (runs) obtained in accordance with this method shall be considered a valid set of charging observations only where it is not possible to obtain five charging observations, because of visual interferences (see section 3.5) or inclement weather prevent a clear view of the charging system during charging. However, observations from three or four charges that satisfy these requirements shall not be considered a valid set of charging observations if use of such set of observations in a calculation under section 3.9 would cause the value of A to be less than 145.

3.9 Log Average. For each day on which a valid daily set of observations is obtained, calculate the daily 30-day rolling log average of seconds of visible emissions from the charging operation for each battery using these data and the 29 previous valid daily sets of observations, in accordance with the following equation:

$$\text{logarithmic average} = e^y - 1 \quad (\text{Eq. 303-1})$$

where $e=2.72$,

$$y = \frac{\ln(X_1 + 1) + (X_2 + 1) + L \ln(X_A + 1)}{A}$$

\ln =Natural logarithm, and

X_i =Seconds of VE during the i th charge.

$A=150$ or the number of valid observations (runs). The value of A shall not be less than 145, except for purposes of determinations under § 63.306(c) (work practice plan implementation) or § 63.306(d) (work practice plan revisions) of this part. No set of observations shall be considered valid for such a recalculation that otherwise would not be considered a valid set of observations for a calculation under this paragraph.

4. Procedure for Determining VE From Coke Oven Door Areas

The intent of this procedure is to determine VE from coke oven door areas by carefully observing the door area from a standard distance while walking at a normal pace.

4.1 Number of Runs. Refer to § 63.309(c)(1) of this part for the appropriate number of runs.

4.2 Battery Traverse. To conduct a battery traverse, walk the length of the battery on the outside of the pusher machine and quench car tracks at a steady, normal walking pace, pausing to make appropriate entries on the door area inspection sheet (Figure 303-2). A single test run consists of two timed traverses, one for the coke side and one for the push side. The walking pace shall not exceed an average rate of 4 seconds per oven door, excluding time spent moving around stationary obstructions or waiting for other obstructions to move from positions blocking the view of a series of doors. Extra time is allowed for each leak for the observer to make the proper notation. A walking pace of 3 seconds per oven door has been found to be typical. Record the actual traverse time with a stopwatch.

4.2.1 Time only the time spent observing the doors and recording door leaks. To measure actual traverse time, use an accumulative-type stopwatch with unit divisions of 0.5 seconds or less. Exclude interruptions to the traverse and time required for the observer to move to positions where the view of the battery is unobstructed, or for obstructions, such as the door machine, to move from positions blocking the view of a series of doors.

4.2.2 Various situations may arise that will prevent the observer from viewing a door or a series of doors. Prior to the door inspection, the owner or operator may elect to temporarily suspend charging operations for the duration of the inspection, so that all of the doors can be viewed by the observer. The observer has two options for dealing with obstructions to view: (a) Stop the stopwatch and wait for the equipment to move or the fugitive emissions to dissipate before completing the traverse; or (b) stop the stopwatch, skip the affected ovens, and move to a position to continue the traverse. Restart the stopwatch and continue the traverse. After the completion of the traverse, if the equipment has moved or the fugitive emissions have dissipated, inspect the affected doors. If the equipment is still preventing the observer from viewing the doors, then the affected doors may be counted as not observed. If option (b) is used because of doors blocked by machines during charging operations, then, of the affected doors, exclude the door from the most recently charged oven from the inspection. Record the oven numbers and make an appropriate notation under "Comments" on the door area inspection sheet (Figure 303-2).

4.2.3 When batteries have sheds to control emissions, conduct the inspection from outside the shed unless the doors cannot be adequately viewed. In this case, conduct the inspection from the bench. Be aware of special safety considerations pertinent to walking on the bench and follow the instructions of company personnel on the required equipment and operations procedures. If possible, conduct the bench traverse whenever the bench is clear of the door machine and hot coke guide.

4.3 Observations. Record all the information requested at the top of the door area inspection sheet (Figure 303-2), including the number of inoperable ovens. Record the clock time at the start of the traverse on each side of the battery. Record which side is being inspected, i.e., coke side or push side. Other information may be recorded at the discretion of the observer, such as the location of the leak (i.e., top of the door, chuck door, etc.), the reason for any interruption of the traverse, or the position of the sun relative to the battery and sky conditions (i.e., overcast, partly sunny, etc.).

4.3.1 Begin the test run by starting the stopwatch and traversing either the coke side or the push side of the battery. After completing one side, stop the watch. Complete this procedure on the other side. If inspecting more than one battery, the observer may view the push sides and the coke sides sequentially.

4.3.2 During the traverse, look around the entire perimeter of each oven door. The door is considered leaking if VE are detected in the coke oven door area. The coke oven door area includes the entire area on the vertical face of a coke oven between the bench and the top of the battery between two adjacent buck stays (e.g., the oven door, chuck door, between the masonry brick, buck stay or jamb, or other sources). Record the oven number and make the appropriate notation on the door area inspection sheet (Figure 303-2).

Note: Multiple VE from the same door area (e.g., VE from both the chuck door and the push side door) are counted as only one emitting door, not as multiple emitting doors.

4.3.3 Do not record the following sources as door area VE:

4.3.3.1 VE from ovens with doors removed. Record the oven number and make an appropriate notation under "Comments;"

4.3.3.2 VE from ovens taken out of service. The owner or operator shall notify the observer as to which ovens are out of service. Record the oven number and make an appropriate notation under "Comments;" or

4.3.3.3 VE from hot coke that has been spilled on the bench as a result of pushing.

4.4 Criteria for Acceptance. After completing the run, calculate the maximum time allowed to observe the ovens by the following equation:

$$T = (4 \times D_t) + (10 \times L) \quad (\text{Eq. 303-2})$$

where

T=Total time allowed for traverse, seconds;

D_t =Total number of oven doors on the battery; and

L=Number of doors with VE.

4.4.1 If the total traverse time exceeds T, void the run, and conduct another run to satisfy the requirements of § 63.309(c)(1) of this part.

4.5 Calculations for Percent Leaking Doors (PLD). Determine the total number of doors for which observations were made on the coke oven battery as follows:

$$D_{ob} = (2 \times N) - (D_i + D_{no}) \quad (\text{Eq. 303-2})$$

where

D_{ob} =Total number of doors observed on operating ovens;

D_i = Number of doors on nonoperating ovens;

D_{no} =Number of doors not observed; and

N =Total number of ovens in the battery.

4.5.1 For each test run (one run includes both the coke side and the push side traverses), sum the number of doors with door area VE. For batteries subject to an approved alternative standard under § 63.305 of this part, calculate the push side and the coke side PLD separately.

4.5.2 Calculate percent leaking doors by using the following equation:

$$PLD = \frac{L_y}{D_{ob}} \times 100 \quad (\text{Eq. 303-4})$$

where

PLD=Percent leaking doors for the test run;

L_y = Normal of doors with VE observed from the yard; and

D_{ob} =Total number of doors observed on operating ovens.

4.5.3 When traverses are conducted from the bench under sheds, calculate the coke side and the push side separately. Use the following equation to calculate a yard-equivalent reading:

$$L_b = L_s - (N \times 0.06) \quad (\text{Eq. 303-5})$$

where

N =Total number of ovens on the battery;

L_b =Yard-equivalent reading; and

L_s =Number of doors with VE observed from the bench under sheds.

If L_b is less than zero, use zero for L_b in Equation 303-6 in the calculation of PLD.

4.5.3.1 Use the following equation to calculate PLD:

$$PLD = \frac{L_b + L_y}{D_{ob}} \times 100 \quad (\text{Eq. 303-6})$$

where

PLD=Percent leaking coke oven doors for the run;

L_b =Yard equivalent reading;

L_y =Number of doors with VE observed from the yard on the push side; and

D_{ob} =Total number of doors observed on operating ovens.

Round off PLD to the nearest hundredth of 1 percent and record as the percent leaking coke oven doors for the run.

4.5.3.2 30-day Rolling Average. For each day on which a valid observation is obtained, calculate the daily 30-day rolling average for each battery using these data and the 29 previous valid daily observations, in accordance with the following equation:

$$PLD(30\text{-day}) = \frac{(PLD_1 + PLD_2 + \dots + PLD_{30})}{30} \quad (\text{Eq. 303-7})$$

5. Procedure for Determining VE from Topside Port Lids and Offtake Systems

5.1 Number of Runs. Refer to § 63.309(c)(1) of this part for the number of runs to be conducted. Simultaneous runs or separate runs for the topside port lids and offtake systems may be conducted.

5.2 Battery Traverse. To conduct a topside traverse of the battery, walk the length of the battery at a steady, normal walking pace, pausing only to make appropriate entries on the topside inspection sheet (Figure 303-3). The walking pace shall not exceed an average rate of 4 seconds per oven, excluding time spent moving around stationary obstructions or waiting for other obstructions to move from positions blocking the view. Extra time is allowed for each leak for the observer to make the proper notation. A walking pace of 3 seconds per oven is typical. Record the actual traverse time with a stopwatch.

5.3 Topside Port Lid Observations. To observe lids of the ovens involved in the charging operation, the observer shall wait to view the lids until approximately 5 minutes after the completion of the charge. Record all the information requested on the topside inspection sheet (Figure 303-3). Record the clock time when traverses begin and end. If the observer's view is obstructed during the traverse (e.g., steam from the coke wharf, larry car, etc.), follow the guidelines given in section 4.2.2.

5.3.1 To perform a test run, conduct a single traverse on the topside of the battery. The observer shall walk near the center of the battery but may deviate from this path to avoid safety hazards (such as open or closed charging ports, luting buckets, lid removal bars, and topside port lids that have been removed) and any other obstacles. Upon noting VE from the topside port lid(s) of an oven, record the oven number and port number, then resume the traverse. If any oven is dampered-off from the collecting main for decarbonization, note this under "Comments" for that particular oven.

Note: Count the number of topside ports, not the number of points, exhibiting VE, i.e., if a topside port has several points of VE, count this as one port exhibiting VE.

5.3.2 Do not count the following as topside port lid VE:

5.3.2.1 VE from between the brickwork and oven lid casing or VE from cracks in the oven brickwork. Note these VE under “Comments;”

5.3.2.2 VE from topside ports involved in a charging operation. Record the oven number, and make an appropriate notation (i.e., not observed because ports open for charging) under “Comments;”

5.3.2.3 Topside ports having maintenance work done. Record the oven number and make an appropriate notation under “Comments;” or

5.3.2.4 Condensing water from wet-sealing material. Ports with only visible condensing water from wet-sealing material are counted as observed but not as having VE.

5.3.2.5 Visible emissions from the flue inspection ports and caps.

5.4 Offtake Systems Observations. To perform a test run, traverse the battery as in section 5.3.1. Look ahead and back two to four ovens to get a clear view of the entire offtake system for each oven. Consider visible emissions from the following points as offtake system VE: (a) the flange between the gooseneck and collecting main (“saddle”), (b) the junction point of the standpipe and oven (“standpipe base”), (c) the other parts of the offtake system (e.g., the standpipe cap), and (d) the junction points with ovens and flanges of jumper pipes.

5.4.1 Do not stray from the traverse line in order to get a “closer look” at any part of the offtake system unless it is to distinguish leaks from interferences from other sources or to avoid obstacles.

5.4.2 If the centerline does not provide a clear view of the entire offtake system for each oven (e.g., when standpipes are longer than 15 feet), the observer may conduct the traverse farther from (rather than closer to) the offtake systems.

5.4.3 Upon noting a leak from an offtake system during a traverse, record the oven number. Resume the traverse. If the oven is dampered-off from the collecting main for decarbonization and VE are observed, note this under “Comments” for that particular oven.

5.4.4 If any part or parts of an offtake system have VE, count it as one emitting offtake system. Each stationary jumper pipe is considered a single offtake system.

5.4.5 Do not count standpipe caps open for a decarbonization period or standpipes of an oven being charged as source of offtake system VE. Record the oven number and write “Not observed” and the reason (i.e., decarb or charging) under “Comments.”

Note: VE from open standpipes of an oven being charged count as charging emissions. All VE from closed standpipe caps count as offtake leaks.

5.5 Criteria for Acceptance. After completing the run (allow 2 traverses for batteries with double mains), calculate the maximum time allowed to observe the topside port lids and/or offtake systems by the following equation:

$$T = (4 \text{ sec} \times N) + (10 \text{ sec} \times Z) \quad (\text{Eq. 303-8})$$

where

T=Total time allowed for traverse, seconds;

N=Total number of ovens in the battery; and

Z=Number of topside port lids or offtake systems with VE.

5.5.1 If the total traverse time exceeds T, void the run and conduct another run to satisfy the requirements of § 63.309(c)(1) of this part.

5.6 In determining the percent leaking topside port lids and percent leaking offtake systems, do not include topside port lids or offtake systems with VE from the following ovens:

5.6.1 Empty ovens, including ovens undergoing maintenance, which are properly dampered off from the main.

5.6.2 Ovens being charged or being pushed.

5.6.3 Up to 3 full ovens that have been dampered off from the main prior to pushing.

5.6.4 Up to 3 additional full ovens in the pushing sequence that have been dampered off from the main for offtake system cleaning, for decarbonization, for safety reasons, or when a charging/pushing schedule involves widely separated ovens (e.g., a Marquard system); or that have been dampered off from the main for maintenance near the end of the coking cycle. Examples of reasons that ovens are dampered off for safety reasons are to avoid exposing workers in areas with insufficient clearance between standpipes and the larry car, or in areas where workers could be exposed to flames or hot gases from open standpipes, and to avoid the potential for removing a door on an oven that is not dampered off from the main.

5.6.5 Topside Port Lids. Determine the percent leaking topside port lids for each run as follows:

$$PLL = \frac{P_{VE}}{P_{ovn} (N - N_i) - P_{NO}} \times 100 \quad (\text{Eq. 303-9})$$

where

PLL=Percent leaking topside port lids for the run;

P_{VE}=Number of topside port lids with VE;

P_{ovn}=Number of ports per oven;

N=Total number of ovens in the battery;

N_i=Number of inoperable ovens; and

P_{NO}=Number of ports not observed.

5.6.5.1 Round off this percentage to the nearest hundredth of 1 percent and record this percentage as the percent leaking topside port lids for the run.

5.6.5.2 30-day Rolling Average. For each day on which a valid daily observation is obtained, calculate the daily 30-day rolling average for each battery using these data and the 29 previous valid daily observations, in accordance with the following equation:

$$PLL(30\text{-day}) = \frac{(PLL_1 + PLL_2 + K + PLL_{30})}{30} \quad (\text{Eq. 303-10})$$

5.6.6 Offtake Systems. Determine the percent leaking offtake systems for the run as follows:

where

$$PLO = \frac{T_{VE}}{T_{ovn} (N - N_i) + J - T_{NO}} \times 100 \quad (\text{Eq. 303-11})$$

PLO=Percent leaking offtake systems;

T_{VE}=Number of offtake systems with VE;

T_{ovn}=Number of offtake systems (excluding jumper pipes) per oven;

N=Total number of ovens in the battery;

N_i=Total number of inoperable ovens;

T_{NO}=Number of offtake systems not observed; and

J=Number of stationary jumper pipes.

5.6.6.1 Round off this percentage to the nearest hundredth of 1 percent and record this percentage as the percent leaking offtake systems for the run.

5.6.6.2 30-day Rolling Average. For each day on which a valid daily observation is obtained, calculate the daily 30-day rolling average for each battery using these data and the 29 previous valid daily observations, in accordance with the following equation:

$$PLO(30\text{-day}) = \frac{(PLO_1 + PLO_2 K + PLO_{30})}{30} \quad (\text{Eq. 303-12})$$

6. Procedure for Determining VE From Collecting Mains

6.1 Traverse. To perform a test run, traverse both the collecting main catwalk and the battery topside along the side closest to the collecting main. If the battery has a double main, conduct two sets of traverses for each run, i.e., one set for each main.

6.2 Data Recording. Upon noting VE from any portion of a collection main, identify the source and approximate location of the source of VE and record the time under "Collecting main" on Figure 303-3; then resume the traverse.

6.3 Collecting Main Pressure Check. After the completion of the door traverse, the topside port lids, and offtake systems, compare the collecting main pressure during the inspection to the collecting main pressure during the previous 8 to 24 hours. Record the following: (a) The pressure during inspection, (b) presence of pressure deviation from normal operations, and (c) the explanation for any pressure deviation from normal operations, if any, offered by the operators. The owner or operator of the coke battery shall maintain the pressure recording equipment and conduct the quality assurance/quality control (QA/QC) necessary to ensure reliable pressure readings and shall keep the QA/QC records for at least 6 months. The observer may periodically check the QA/QC records to determine their completeness. The owner or operator shall provide access to the records within 1 hour of an observer's request.

7. Bibliography

1. Missan, R., and A. Stein. Guidelines for Evaluation of Visible Emissions Certification, Field Procedures, Legal Aspects, and Background Material. U.S. Environmental Protection Agency. EPA Publication No. EPA-340/1-75-007. April 1975.
2. Wohlschlegel, P., and D.E. Wagoner. Guideline for Development of a Quality Assurance Program: Volume IX-Visual Determination of Opacity Emission from Stationary Sources. U.S. Environmental Protection Agency. EPA Publication No. EPA-650/4-005i. November 1975.
3. U.S. Occupational Safety and Health Administration. Code of Federal Regulations. title 29, chapter XVII, section 1910.1029(g). Washington, DC Government Printing Office. July 1, 1990.
4. U.S. Environmental Protection Agency. National Emission Standards for Hazardous Air Pollutants; Coke Oven Emissions from Wet-Coal Charged By-Product Coke Oven Batteries; Proposed Rule and Notice of Public Hearing. Washington, DC Federal Register. Vol. 52, No. 78 (13586). April 23, 1987.

>>>>>>>> See the accompanying hardcopy volume for non-machine-readable data that appears at this point. <<<<<

METHOD 303A-DETERMINATION OF VISIBLE EMISSIONS FROM NONRECOVERY COKE OVEN BATTERIES

1. Applicability and Principle

1.1 Applicability. This method determines percent leaking doors.

1.2 Principle. A certified observer visually determines the VE from coke oven battery sources. This method does not require that opacity of emissions be determined or that magnitude be differentiated.

1.3 Definitions.

1.3.1 Bench. The platform structure in front of the oven doors.

1.3.2 Nonrecovery Coke Oven Battery. A source consisting of a group of ovens connected by common walls and operated as a unit, where coal undergoes destructive distillation under negative pressure to produce coke, and which is designed for the combustion of coke oven gas from which by-products are not recovered.

1.3.3 Coke Oven Door. Each end enclosure on the pusher side and the coking side of an oven.

1.3.4 Coke Side. The side of a battery from which the coke is discharged from ovens at the end of the coking cycle.

1.3.5 Operating Oven. Any oven not out of operation for rebuild or maintenance work extensive enough to require the oven to be skipped in the charging sequence.

1.3.6 Oven. A chamber in the coke oven battery in which coal undergoes destructive distillation to produce coke.

1.3.7 Push Side. The side of the battery from which the coke is pushed from ovens at the end of the coking cycle.

1.3.8 Run. The observation of visible emissions from coke oven doors in accordance with the procedures in this method.

1.3.9 Shed. An enclosure that covers the side of the coke oven battery, captures emissions from pushing operations and from leaking coke oven doors on the coke side or pusher side of the coke oven battery, and routes the emissions to a control device or system.

2. Training

2.1 Training. This method requires only the determination of whether VE occur and does not require the determination of opacity levels; therefore, observer certification according to Method 9 in appendix A to part 60 of this chapter is not required. However, the first-time observer (trainee) shall have attended the lecture portion of the Method 9 certification course. Furthermore, before conducting any VE observations, an observer shall become familiar with nonrecovery coke oven battery operations and with this test method by observing for a minimum of 4 hours the operation of a nonrecovery coke oven battery.

3. Procedure for Determining VE From Coke Oven Door Areas

The intent of this procedure is to determine VE from coke oven door areas by carefully observing the

door area while walking at a normal pace.

3.1 Number of Runs. Refer to § 63.309(c)(1) of this part for the appropriate number of runs.

3.2 Battery Traverse. To conduct a battery traverse, walk the length of the battery on the outside of the pusher machine and quench car tracks at a steady, normal walking pace, pausing to make appropriate entries on the door area inspection sheet (Figure 303A-1). A single test run consists of two timed traverses, one for the coke side and one for the push side.

3.2.1 Various situations may arise that will prevent the observer from viewing a door or a series of doors. The observer has two options for dealing with obstructions to view: (a) Wait for the equipment to move or the fugitive emissions to dissipate before completing the traverse; or (b) skip the affected ovens and move to a position to continue the traverse. Continue the traverse. After the completion of the traverse, if the equipment has moved or the fugitive emissions have dissipated, complete the traverse by inspecting the affected doors. Record the oven numbers and make an appropriate notation under “Comments” on the door area inspection sheet (Figure 303A-1).

3.2.2 When batteries have sheds to control pushing emissions, conduct the inspection from outside the shed, if the shed allows such observations, or from the bench. Be aware of special safety considerations pertinent to walking on the bench and follow the instructions of company personnel on the required equipment and operations procedures. If possible, conduct the bench traverse whenever the bench is clear of the door machine and hot coke guide.

3.3 Observations. Record all the information requested at the top of the door area inspection sheet (Figure 303A-1), including the number of inoperable ovens. Record which side is being inspected, i.e., coke side or push side. Other information may be recorded at the discretion of the observer, such as the location of the leak (e.g., top of the door), the reason for any interruption of the traverse, or the position of the sun relative to the battery and sky conditions (i.e., overcast, partly sunny, etc.).

3.3.1 Begin the test run by traversing either the coke side or the push side of the battery. After completing one side, traverse the other side.

3.3.2 During the traverse, look around the entire perimeter of each oven door. The door is considered leaking if VE are detected in the coke oven door area. The coke oven door area includes the entire area on the vertical face of a coke oven between the bench and the top of the battery. Record the oven number and make the appropriate notation on the door area inspection sheet (Figure 303A-1).

3.3.3 Do not record the following sources as door area VE:

3.3.3.1 VE from ovens with doors removed. Record the oven number and make an appropriate notation under “Comments;”

3.3.3.2 VE from ovens where maintenance work is being conducted. Record the oven number and make an appropriate notation under “Comments;” or

3.3.3.3 VE from hot coke that has been spilled on the bench as a result of pushing.

3.4 Calculations for percent leaking doors (PLD). Determine the total number of doors for which observations were made on the coke oven battery as follows:

$$D_{ob} = (2 \times N) - (D_i + D_{no}) \quad (\text{Eq. 303A-1})$$

where

D_{ob} =Total number of doors observed on operating ovens;

D_i =Number of doors on nonoperating ovens;

D_{no} =Number of doors not observed; and

N =Total number of ovens in the battery.

3.4.1 For each test run (one run includes both the coke side and the push side traverses), sum the number of doors with door area VE.

Note: Multiple VE from the same door area are counted as only one emitting door, not as multiple emitting doors.

3.4.2 Calculate percent leaking doors by using the following equation:

$$\text{PLD} = \frac{L_y}{D_{ob}} \times 100 \quad (\text{Eq. 303A-2})$$

where

PLD=Percent leaking doors for the test run;

L_y =Number of doors with VE observed from the yard; and

D_{ob} =Total number of doors observed on operating ovens.

3.4.3 When traverses are conducted from the bench under sheds, calculate the coke side and the push side reading separately. Use the following equation to calculate a yard-equivalent reading for the coke side:

$$L_b = L_s - (N \times 0.06) \quad (\text{Eq. 303A-3})$$

where

N =Total number of ovens on the battery;

L_b =Yard-equivalent reading; and

L_s =Number of doors with VE observed from the bench under sheds. If L_b is less than zero, use zero for L_b in Equation 303A-4 in the calculation of PLD.

3.4.3.1 Use the following equation to calculate PLD:

$$PLD = \frac{L_b + L_y}{D_{ob}} \times 100 \quad (\text{Eq. 303A-4})$$

where

PLD=Percent leaking coke oven doors for the run;

L_b =Yard equivalent reading;

L_y =Number of doors with VE observed from the yard on the push side; and

D_{ob} =Total number of doors observed on operating ovens.

Round off PLD to the nearest hundredth of 1 percent and record as the percent leaking coke oven doors for the run.

3.4.3.2 30-day Rolling Average. For each day on which a valid observation is obtained, calculate the daily 30-day rolling average for each battery using these data and the 29 previous valid daily observations, in accordance with the following equation:

$$PLD(30\text{-day}) = \frac{(PLD_1 + PLD_2L + PLD_{30})}{30} \quad (\text{Eq. 303-5})$$

4. Bibliography

1. Missan, R., and A. Stein. Guidelines for Evaluation of Visible Emissions Certification, Field Procedures, Legal Aspects, and Background Material. U.S. Environmental Protection Agency. EPA Publication No. EPA-340/1-75-007. April 1975.
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3. U.S. Occupational Safety and Health Administration. Code of Federal Regulations. Title 29, Chapter XVII, Section 1910.1029(g). Washington, DC Government Printing Office. July 1, 1990.
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[FR Doc. 93-26162 Filed 10-26-93; 8:45 am]

BILLING CODE 6560-50-C