

**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 60**

**[EPA-HQ-OAR-2008-0260; FRL- ]**

**RIN 2060-A057**

**Standards of Performance for Coal Preparation and  
Processing Plants**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Supplemental proposal.

**SUMMARY:** EPA is proposing a supplemental action to the proposed amendments to the new source performance standards for coal preparation and processing plants published on April 28, 2008. The 2008 proposal, among other things, proposed to revise the particulate matter and opacity standards for thermal dryers, pneumatic coal cleaning equipment, and coal handling equipment located at coal preparation and processing plants. This supplemental action proposes to revise the particulate matter emissions and opacity limits included in the original proposal for thermal dryers, pneumatic coal-cleaning equipment, and coal handling equipment. It also proposes to expand the applicability of the thermal dryer standards so that the proposed standards for thermal dryers would apply to both direct contact and indirect contact thermal dryers drying all coal ranks and pneumatic coal-cleaning equipment

cleaning all coal ranks. In addition, it proposes to establish a sulfur dioxide emission limit and a combined nitrogen oxide and carbon monoxide emissions limit for thermal dryers. We are also proposing to amend the definition of coal for purposes of subpart Y to include petroleum coke and coal refuse. Finally, it proposes to establish work practice standards to control coal dust emissions from open storage piles and roadways associated with coal preparation and processing plants.

**DATES:** Comments. Comments must be received on or before [INSERT DATE 45 DAYS FROM DATE OF PUBLICATION IN THE FEDERAL REGISTER]. If anyone contacts EPA by [INSERT DATE 10 DAYS FROM DATE OF PUBLICATION IN THE FEDERAL REGISTER] requesting to speak at a public hearing, EPA will hold a public hearing on [INSERT DATE 15 DAYS FROM DATE OF PUBLICATION IN THE FEDERAL REGISTER]. Under the Paperwork Reduction Act, comments on the information collection provisions must be received by the Office of Management and Budget (OMB) on or before [INSERT DATE 30 DAYS FROM DATE OF PUBLICATION IN THE FEDERAL REGISTER].

Because, under the terms of a consent decree, the final action must be signed not later than September 26, 2009, EPA will not grant requests for extensions beyond these dates.

**ADDRESSES:** Comments. Submit your comments, identified by Docket ID No. EPA-HQ-OAR-2008-0260, by one of the following methods:

- www.regulations.gov. Follow the on-line instructions for submitting comments.
- E-mail: a-and-r-docket@epa.gov.
- By Facsimile: (202) 566-1741.
- Mail: Air and Radiation Docket, U.S. EPA, Mail Code 6102T, 1200 Pennsylvania Ave., NW, Washington, DC 20460. Please include a total of two copies. In addition, please mail a copy of your comments on the information collection provisions to the Office of Information and Regulatory Affairs, Office of Management and Budget (OMB), Attn: Desk Officer for EPA, 725 17<sup>th</sup> Street, NW, Washington, DC 20503. EPA requests a separate copy also be sent to the contact person identified below (see **FOR FURTHER INFORMATION CONTACT**).

- Hand Delivery: EPA Docket Center, Docket ID Number EPA-HQ-OAR-2008-0260, EPA West Building, 1301 Constitution Ave., NW, Room 3334, Washington, DC, 20004. Such deliveries are accepted only during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments to Docket ID No. EPA-

HQ-OAR-2008-0260. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at [www.regulations.gov](http://www.regulations.gov), including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through [www.regulations.gov](http://www.regulations.gov) or e-mail. The [www.regulations.gov](http://www.regulations.gov) website is an "anonymous access" system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through [www.regulations.gov](http://www.regulations.gov), your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be

free of any defects or viruses. For additional information about EPA's public docket visit the EPA Docket Center homepage at <http://www.epa.gov/epahome/dockets.htm>.

Docket: All documents in the docket are listed in the [www.regulations.gov](http://www.regulations.gov) index. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically in [www.regulations.gov](http://www.regulations.gov) or in hard copy at the Air and Radiation Docket EPA/DC, EPA West, Room 3334, 1301 Constitution Ave., NW, Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the Air and Radiation Docket is (202) 566-1742.

**FOR FURTHER INFORMATION CONTACT:** Ms. Mary Johnson, Energy Strategies Group, Sector Policies and Programs Division (D243-01), U.S. EPA, Research Triangle Park, NC 27711, telephone number (919) 541-5025, facsimile number (919) 541-5450, electronic mail (e-mail) address: [johnson.mary@epa.gov](mailto:johnson.mary@epa.gov).

**SUPPLEMENTARY INFORMATION:** Regulated Entities. Entities potentially affected by this proposed action include, but are not limited to, the following:

<b>Category</b>	<b>NAICS<sup>1</sup></b>	<b>Examples of regulated entities</b>
Industry	212111	Bituminous Coal and Lignite Surface Mining
	212112	Bituminous Coal Underground Mining
	221112	Fossil Fuel Electric Power Generation
	212113	Anthracite Mining
	213113	Support Activities for Coal Mining
	322121	Paper (except Newsprint) Mills
	324199	All other petroleum and coal products manufacturing
	325110	Petrochemical Manufacturing
	327310	Cement Manufacturing
	331111	Iron and Steel Mills
Federal Government	22112	Fossil fuel-fired electric utility steam generating units owned by the Federal Government
State/local/ tribal government	22112 921150	Fossil fuel-fired electric utility steam generating units owned by municipalities Fossil fuel-fired electric steam generating units in Indian Country.

<sup>1</sup> North American Industry Classification System (NAICS) code.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by the proposed rule. This table lists categories of entities that may have coal preparation and processing plants regulated by this proposed rule. To determine whether your facility is regulated by the

proposed rule, you should examine the applicability criteria in §60.250 and the definitions in §60.251. If you have any questions regarding the applicability of the proposed rule to a particular entity, contact the person listed in the preceding FOR FURTHER INFORMATION CONTACT section.

WorldWide Web (WWW). Following the Administrator's signature, a copy of the proposed amendments will be posted on the Technology Transfer Network's (TTN) policy and guidance page for newly proposed or promulgated rules at <http://www.epa.gov/ttn/oarpg>. The TTN provides information and technology exchange in various areas of air pollution control.

Public Hearing. If anyone contacts EPA by [INSERT DATE 10 DAYS FROM DATE OF PUBLICATION IN THE FEDERAL REGISTER] requesting to speak at a public hearing, EPA will hold a public hearing on [INSERT DATE 15 DAYS FROM DATE OF PUBLICATION IN THE FEDERAL REGISTER]. If a public hearing is held, it will be held at 10 a.m. at the EPA Facility Complex in Research Triangle Park, North Carolina or at an alternate site nearby. Contact Mrs. Pamela Garrett at 919-541-7966 to request a hearing, to request to speak at a public hearing, to determine if a hearing will be held, or to determine the hearing location.

Outline. The information presented in this preamble is organized as follows:

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- G. Executive Order 13045: Protection of Children from Environmental Health and Safety Risks
- H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use
- I. National Technology Transfer Advancement Act
- J. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations.

## **I. Background**

On April 28, 2008 (73 FR 22901), we proposed amendments to the New Source Performance Standards (NSPS) for Coal Preparation and Processing Plants (40 CFR part 60, subpart Y). The Federal Register action for that original proposal included additional background information on the coal preparation NSPS. That information is not repeated in this action. EPA received numerous comments in response to the April 2008 proposal. After reviewing those comments and considering additional data, EPA decided to publish this supplemental proposal which contains proposed emission limits and monitoring requirements that differ from those in the original action and proposes to apply those requirements to additional affected facilities.

## **II. Summary of Proposed Amendments**

In this supplemental action, we are proposing to establish emissions standards for both direct contact and indirect thermal dryers and pneumatic coal-cleaning equipment that process all coal ranks. We are also proposing to establish work practice standards to control coal dust emissions from open storage piles and roadways associated with coal preparation and processing plants. In addition, we are proposing to establish a sulfur dioxide (SO<sub>2</sub>) emission limit and a combined nitrogen oxide (NO<sub>x</sub>) and carbon monoxide (CO) emissions limit for thermal dryers. Finally, we are proposing particulate matter (PM) emission limits, opacity limits, and monitoring requirements that differ from those included in the April 2008 proposal. For all standards proposed in the April 2008 proposed rule, this supplemental proposal will not change the applicability date for determining whether a source constitutes a "new source" subject to the final version of such standards. All standards originally included in the April 2008 proposed rule, regardless of whether the level of the standard is modified in this supplemental proposal or in an eventual final rule, apply to sources constructed, modified, or reconstructed after April 28, 2008. Standards, such as the SO<sub>2</sub> and combined NO<sub>x</sub> and CO standards, proposed for the first time in this supplemental proposal, apply to all

sources constructed, modified, or reconstructed after [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]. A summary of the proposed amendments is presented below.

A. Affected Facilities

The existing NSPS for coal preparation and processing plants in 40 CFR part 60, subpart Y establishes emission limits for the following affected facilities located at coal preparation and processing plants which process more than 181 megagrams (Mg) (200 tons) of coal per day: thermal dryers, pneumatic coal-cleaning equipment (air tables), coal processing and conveying equipment (including breakers and crushers), coal storage systems, and transfer and loading systems. The terms "thermal dryer" and "pneumatic coal-cleaning equipment" are defined to include only facilities that process bituminous coal and "coal storage system" is defined to exclude open storage piles.

In the April 2008 proposal, we did not propose any revisions to these provisions. Several commenters suggested that standards should also be developed for indirect thermal dryers, thermal dryers drying all coal ranks, open storage piles, and coal dust associated with roadways associated with coal preparation and processing plants. Commenters said EPA's original rationale for limiting the applicability for thermal dryers was a lack of emissions data and thermal

dryers and pneumatic coal-cleaning equipment processing non-bituminous coals did not exist and that these reasons are no longer valid. Commenters said indirect thermal dryers and direct contact thermal dryers "upgrading" subbituminous and lignite will become more common in the future. Even though power plant emissions might be decreased, if emissions standards are not established on the pre-combustion process, they argued, there is no environmental benefit and potential net degradation to air quality from coal "upgrading."

For open storage piles and roadways, commenters pointed out that both are significant sources of PM emissions for which control technology is available. One commenter pointed out that enclosures, wind fences and other barriers, and wet or chemical suppression are available control technologies. Potential controls for coal road dust include tire or truck wash systems, sweeper trucks, and wet suppression.

Based on our review of public comments and subsequent analysis, we are proposing to amend the definition of thermal dryer for units constructed after [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER] to include both direct and indirect dryers drying all coal ranks. We are also proposing to amend the definition of pneumatic coal-cleaning equipment for units constructed after [INSERT DATE OF

PUBLICATION IN THE FEDERAL REGISTER] to include pneumatic coal-cleaning equipment cleaning all coal ranks. In addition, we are proposing to establish work practice standards that apply to open storage piles and roads associated with a coal preparation plant constructed after [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER].

B. PM and Opacity Limits for Thermal Dryers

In the April 2008 proposed rule, we proposed a PM standard of 0.046 grams per dry standard cubic meter (g/dscm) (0.020 grains per dry standard cubic foot (gr/dscf)) and proposed to retain the existing 1976 rule's opacity limit of less than 20 percent for thermal dryers constructed, modified, or reconstructed after April 28, 2008. We received comments that the PM limit would be prohibitively expensive for modified and reconstructed units to achieve, but that the limit should be lower for new units and should be based on the use of a fabric filter (baghouse).

Based on our review of public comments and subsequent analysis, we are now proposing to revise our April 2008 proposal regarding PM and opacity standards for thermal dryers. We are now proposing separate standards for new, reconstructed, and modified units. We are proposing to revise the limits for new units constructed after April 28,

2008, to 0.023 g/dscm (0.010 gr/dscf) of PM and an opacity limit of less than 10 percent. We are proposing to revise the PM limit for units reconstructed after April 28, 2008, to 0.045 g/dscm (0.020 gr/dscf) and proposing to maintain the existing 1976 rule's opacity limit of less than 20 percent. For units modified after April 28, 2008, we are proposing to maintain the existing 1976 rule's PM limit of 0.070 g/dscm (0.031 gr/dscf) and the existing 1976 rule's opacity limit of less than 20 percent.

C. SO<sub>2</sub>, NO<sub>x</sub>, and CO Emission Limits for Thermal Dryers

The existing NSPS does not limit emissions of SO<sub>2</sub>, NO<sub>x</sub>, or CO from coal preparation facilities, and in the April 2008 proposed rule, we did not propose to add limits for these pollutants. A commenter suggested that standards should be established for each pollutant because thermal dryers emit these pollutants and can cause or contribute significantly to air pollution which may reasonably be anticipated to endanger public health or welfare. The commenter also said using AP-42 emission factors, a 2,000 ton/hr coal thermal dryer would emit 12,000 tons/yr SO<sub>2</sub> and 1,400 tons/yr NO<sub>x</sub>, and because cost-effective controls exist the EPA should base requirements on the use of those controls.

Based on our review of public comments and subsequent analysis, for owners/operators of thermal dryers constructed, modified, or reconstructed after [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER] we are proposing to add the following emissions limits: for new, reconstructed, and modified units, an SO<sub>2</sub> limit of 85 nanograms per Joule (ng/J) (0.20 pounds per million British thermal units (lb/MMBtu)), or 50 percent reduction of potential SO<sub>2</sub> emissions and no more than 520 ng/J; for new units, a combined NO<sub>x</sub> and CO limit of 280 ng/J (0.65 lb/MMBtu); for reconstructed units and modified units, a combined NO<sub>x</sub> and CO limit of 430 ng/J (1.0 lb/MMBtu).

D. PM and Opacity Limits for Pneumatic Coal-Cleaning Equipment, Coal Processing and Conveying Equipment, Coal Storage Systems, and Transfer and Loading Systems

The original 1976 rulemaking treated each coal processing and conveying equipment, coal storage systems, and transfer and loading systems operation as a separate affected facility. However, it grouped them together for the purpose of establishing a single emissions standard. This was done because all of the affected facilities could use similar control devices and achieve comparable emissions rates. We have concluded that this is still an appropriate approach. While each operation is a separate affected

facility, all are either fugitive sources or point sources of PM and similar control equipment can be used on each affected facility resulting in comparable emissions. If additional data is submitted during the comment period that justifies different opacity limits for different coal handling operations, we will consider that approach in the final rule.

The original 1976 rulemaking did not include a PM limit for coal processing and conveying equipment, coal storage systems, and transfer and loading systems. However, the original rulemaking included an opacity limit of less than 20 percent for all of these affected facilities. For pneumatic coal cleaning equipment, the original rulemaking included both a PM limit of 0.040 g/dscm (0.017 gr/dscf) and an opacity limit of less than 10 percent.

In the April 2008 proposed rule, we proposed a PM limit of 0.011 g/dscm (0.0050 gr/dscf) and an opacity limit of less than 5 percent for pneumatic coal-cleaning equipment and coal processing and conveying equipment, coal storage systems, and transfer and loading systems processing subbituminous and lignite coals that commenced construction, reconstruction, or modification after April 28, 2008. We proposed the same limit for both pneumatic coal-cleaning equipment and coal handling operations because we determined

that the best demonstrated technology (BDT) for both was a fabric filter. In addition, we proposed to establish a requirement that coal handling equipment processing subbituminous and lignite coals must be vented to a control device. Multiple commenters challenged the requirement that coal handling equipment processing subbituminous and lignite coals must vent to a control device, and the levels of the PM and opacity limits.

Based on our review of public comments and subsequent analysis, we have concluded it is not appropriate to require coal handling equipment processing subbituminous and lignite coals be vented to a control device. In addition, after further analysis, we are proposing to revise the PM emission limits for pneumatic coal-cleaning equipment and mechanically vented coal handling equipment processing all coal ranks constructed, modified, or reconstructed after April 28, 2008, to 0.023 g/dscm (0.010 gr/dscf). In addition, we are proposing to revise the opacity standard to no greater than 5 percent for all pneumatic coal-cleaning equipment, coal processing and conveying equipment, coal storage systems, and transfer and loading systems that commenced construction, reconstruction, or modification after April 28, 2008.

#### E. Emissions Monitoring Requirements

In the April 2008 proposed rule, we proposed to require initial and annual performance tests for all new thermal dryers, pneumatic coal-cleaning equipment, and subbituminous and lignite coal handling equipment vented to a control device. Commenters suggested that annual performance testing is unduly burdensome for subpart Y affected facilities and suggested either eliminating PM performance testing completely for coal handling equipment or tiered testing requirements depending on the results of the most recent performance test.

Based on our review of public comments and further analysis, we are proposing to amend the testing requirements as follows: first, owners/operators of an affected facility with design potential emissions rates, considering controls, of 1.0 Mg (1.1 tons) per year or less would be required to perform an initial performance test; however, annual performance testing would not be required as long as the design emissions rate is less than or equal to the applicable emissions limit (confirmed by the initial performance test), the manufacturer's recommended maintenance procedures are followed, and the unit operates without significant visible emissions. In addition, for owners/operators with similar, separate affected facilities using identical control equipment with design potential

emissions rates, considering controls, of 10 Mg (11 tons) per year or less, we are proposing to allow the permitting authority to authorize a single test as adequate demonstration for up to four other similar, separate affected facilities as long the following conditions are met: (1) the design emissions rate is less than or equal to the applicable emissions limit; (2) the individual performance test is 90 percent or less of the applicable standard; (3) the manufacturer's recommended maintenance procedures are followed for each control device; (4) each of the affected facilities operates without significant visible emissions; and (5) each affected facility conducts a performance test at least once every 5 years. Finally, we are proposing that owners/operators of affected facilities are only required to conduct performance testing every 24 months, as opposed to every 12 months, if the most recent performance test shows the affected facility emits at 50 percent or less of the applicable standard.

In the April 2008 proposal, we did not propose to require the use of PM continuous emission monitoring systems (CEMS), but added specific language directly to the regulatory text that allowed owners/operators to elect to use PM CEMS and provided incentives for them to do so by proposing to eliminate the opacity standard for

owner/operators of affected facilities using a PM CEMS. Commenters suggested that by having the specific language directly in the regulatory text, we were encouraging State permitting authorities to require the use of PM CEMS, and that the costs are not justified for this source category. Other commenters suggested we require the use of PM CEMS for all units.

Based on our review of public comments and further analysis, we are no longer proposing to include the PM CEMS-specific language in the regulatory text. Non-fugitive sources at coal preparation plants are generally not significant sources of PM emissions. Further, we are not aware of any application of PM CEMS to comparable emissions sources in the United States, and we have concluded that it is unlikely that an owner/operator of a coal preparation plant would elect to install PM CEMS. In addition, owners/operators continue to have the option to request site-specific approval for the use of PM CEMS as an alternate monitoring technique.

In the April 2008 proposed rule, we proposed to require bag leak detection systems for owners/operators of thermal dryers and pneumatic-coal cleaning equipment, if the dryer or equipment uses a fabric filter installed after April 28, 2008. Based on further analysis, we are

proposing to require a bag leak detection system for owners/operators of any subpart Y affected facilities with fabric filters, if the filter has a design controlled potential emissions rate of 25 Mg (28 tons) or more. For this source category, the variable operation of fabric filters makes the likely actual emissions much less than the potential emissions rate and the added expense of a bag leak detection system for smaller sources is not justified. This requirement would apply to facilities constructed, modified, or reconstructed after April 28, 2008.

F. Opacity Monitoring Requirements for Pneumatic Coal-Cleaning Equipment, Coal Processing and Conveying Equipment, Coal Storage Systems, and Transfer and Loading Systems

In the April 2008 proposed rule, we proposed the following PM monitoring requirements. Each affected facility would be required to perform an initial EPA Method 9 of appendix A-4 of 40 CFR part 60 performance test. Following the initial compliance test, three 1-hour EPA Method 22 of appendix A-7 of 40 CFR part 60 observations would be required for each affected facility at least once per calendar month that the coal preparation plant operates. If the sum of visible emissions exceeded 5 percent of the observation period, the owner/operator would

be required to conduct a Method 9 performance test within 24 hours. Commenters suggested that three 1-hour observations are unduly burdensome and suggested that it would be appropriate to include a provision allowing for corrective action prior to requiring a Method 9 performance test. In addition, a commenter suggested adding a provision for the use of a continuous opacity monitoring system (COMS) as an alternative to the Method 9 and Method 22 approach.

Based on our review of public comments and further analysis, we are proposing to change the April 2008 proposed opacity monitoring requirements for pneumatic coal-cleaning and coal handling equipment. First, we are proposing to allow the use of a COMS as an alternative to all other opacity monitoring requirements. Second, we are proposing to allow an owner/operator of an affected facility to decrease the observation period for a Method 9 performance test from 3 hours to 60 minutes if, during the initial 60 minutes of the observation of a Method 9 performance test, all the 6-minute averages are less than or equal to 3 percent and all the individual 15-second observations are less than or equal to 20 percent. Third, we are proposing to base the frequency of visible emissions monitoring on the results of the highest individual 15-

second opacity observed during the most recent performance test. Owners/operators of affected facilities where the maximum 15-second opacity reading is greater than 5 percent would be required to conduct weekly Method 9 performance testing; owners/operators of affected facilities where the maximum 15-second opacity reading is 5 percent would be required to conduct monthly Method 9 performance testing; and owners/operators of affected facilities with no visible emissions would be required to conduct quarterly Method 9 performance testing.

As an alternative, owners/operators of affected facilities where the maximum 6-minute opacity reading from the most recent Method 9 performance test is less than or equal to 3 percent could elect to use either Method 22 or a digital opacity monitoring system in lieu of subsequent Method 9 performance testing. The April 2008 proposal would have required a total of three 1-hour observations monthly. We have concluded that for sources with low opacity, it is more protective to the environment and minimizes burden to industry to increase the frequency of opacity observations, but to decrease the length of each observation. When a control device is operating properly there should be minimal visible emissions and a 1-hour observation would not provide any significant additional

useful information than a 10 minute observation. In addition, by requiring more frequent observations we are decreasing the time period before a malfunctioning piece of control equipment is identified. Therefore, we have concluded it is appropriate to decrease the length of each observation to a minimum of 10 minutes, but to increase the frequency to daily observations.

Further, we are proposing to base monitoring requirements for affected facilities, in part, on recent observations of visible emissions from the facilities. If no visible emissions are observed for 7 consecutive operating days, observations could be reduced to once every 7 operating days. If an owner/operator of an affected facility observes visible emissions in excess of 5 percent during any observation and is unable to take corrective action, they would be required to conduct a Method 9 performance test with the previously specified frequency. Finally, to maintain consistency in the operation of the digital opacity monitoring system, the EPA Administrator would approve opacity monitoring plans for owners/operators that elect to use the digital opacity monitoring system to detect the presence of visible emissions.

G. Electronic Reporting

We are proposing to take a step to improve data accessibility. We are proposing to require owners/operators of affected facilities at coal preparation plants to submit an electronic copy of all performance test reports to an EPA electronic data base (WebFIRE). Data entry requires access to the Internet and is expected to be completed by the stack testing company as part of the work that they are contracted to perform. This option would be required as of July 1, 2011. For performance tests not accepted by WebFIRE, we are proposing to require owner/operators to mail summary results directly to EPA.

#### H. Addition of Petroleum Coke and Coal Refuse to the Definition of Coal

We are proposing to amend the definition of coal for purposes of subpart Y to include petroleum coke and coal refuse. The amended definition will be used to make applicability determinations for all facilities constructed, reconstructed, or modified after [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]. This change indicates our determination that the subpart Y regulations should apply to affected facilities that prepare and process these non-traditional materials that are processed like coal.

#### I. Additional Amendments

We are also proposing several additional amendments. First, we are proposing to change the title of subpart Y from Coal Preparation Plants to Coal Preparation and Processing Plants. In addition, we are proposing to amend the definitions for bituminous coal, coal, coal storage system, pneumatic coal-cleaning equipment, and thermal dryer; to add definitions for anthracite, bag leak detection system, design controlled potential emissions rate, lignite, mechanical vent, operating day, potential combustion concentration, and subbituminous coal; and to delete the definition for cyclonic flow. Finally, we are proposing to exempt units that have been out of operation for at least 60 days prior to the time of the required performance test from conducting the required performance test until 30 days after the facility is brought back into operation.

### **III. Rationale for the Proposed Amendments**

#### **A. Additional Affected Facilities**

The existing NSPS for coal preparation and processing plants establishes PM and opacity limits for thermal dryers that dry bituminous coal where the exhaust gas comes in direct contact with the coal (direct contact thermal dryers). Thermal dryers that dry non-bituminous coals, and dryers that reduce the moisture content of the coal through

indirect heating using a heat transfer medium, are not presently subject to any emission standards. In the April 2008 proposal, we proposed to amend the PM limit for direct contact thermal dryers drying bituminous coal, but did not propose to establish standards for other thermal dryers. We received comments suggesting that we include indirect thermal dryers and thermal dryers drying all coal ranks as affected facilities. In addition, commenters suggested we include limits for other criteria pollutants emitted from thermal dryers.

Based on our review of public comments and subsequent analysis, in this supplemental proposal we are proposing emission standards that would apply to thermal dryers drying all ranks of coals and to both direct contact and indirect thermal dryers. We are proposing to amend the PM and opacity standards and to add both an SO<sub>2</sub> standard and a combined NO<sub>x</sub>-CO standard for thermal dryers.

For indirect thermal dryers, the affected facility will include the heat source for the thermal dryer unless that heat source is subject to a boiler NSPS (e.g., subpart Da, Db, or Dc). Indirect thermal dryers use a heat transfer medium to supply heat and blow air over the coal to evaporate the water. The high moisture content air is vented through a stack and the dryer exhaust contains

entrained PM. If the source of heat (the source of combustion or furnace) is subject to a boiler NSPS (subpart Da, Db, or Dc) then the furnace and the associated emissions would not be part of the subpart Y affected facility. However, if the source of heat is not subject to a boiler NSPS, then the heat source and the associated emissions are part of the subpart Y affected facility.

In situations where the heat source is part of the subpart Y affected facility and the exhaust is combined with the dryer exhaust in a single stack, the combined exhaust stack will contain all of the applicable pollutants (i.e., PM, SO<sub>2</sub>, NO<sub>x</sub>, and CO) and all of the testing requirements would apply. However, in situations where the heat source is part of the subpart Y affected facility and the exhaust is not combined with the dryer exhaust, the subpart Y requirements would apply differently to the dryer exhaust stack and the combustion exhaust stack. The only applicable pollutant in the dryer exhaust would be PM. Therefore, the only performance test that would be required on the dryer exhaust would be for PM. However, all of the requirements of subpart Y, including the PM, SO<sub>2</sub>, and NO<sub>x</sub>-CO standards, would apply to the combustion exhaust stack and all of the testing requirements would apply.

In situations where the heat source is not part of the

subpart Y affected facility because it is a unit covered by a steam generating NSPS (e.g., 40 CFR part 60 subparts Da, Db, or Dc), the only applicable pollutant contained in the thermal dryer stack exhaust would be PM. Because the thermal dryer stack exhaust would not contain SO<sub>2</sub>, NO<sub>x</sub>, or CO, the SO<sub>2</sub> and combined NO<sub>x</sub>-CO testing requirements would not apply.

We are proposing to establish standards that apply to direct contact and indirect thermal dryers drying all coal ranks of coal because the control technologies commonly used on thermal dryers - venturi scrubbers and fabric filters - control PM equally well regardless of the source of PM, and we have concluded that all coal thermal dryers using similar control technologies can achieve comparable emissions rates. In addition, subpart Y was originally promulgated in 1976 and additional pollution control technologies have become available since then.

Open storage piles and dust associated with roadways are potentially significant sources of fugitive PM emissions. These sources are integral parts of coal preparation plants, located on contiguous or adjacent property, and under common control. Although part of the coal preparation plant and, thus, contained within the source category listed in 1976, the existing subpart Y

regulations do not set standards for emissions from open storage piles or from coal dust from roadways. In the April 2008 proposal, we requested comment on including requirements for open storage piles. We received comments both in support of and opposed to including requirements for open storage piles. In addition, we received comments in support of including requirements for the coal dust disturbed by, or released from, vehicle tires as vehicles move within the coal preparation plant. Based on our review of public comments and subsequent analysis, we have concluded that both open storage piles and vehicle tires are significant sources of potential fugitive PM emissions; however, neither operation lends itself to an emissions standard. Therefore, in this supplemental proposal we are proposing to establish work practice standards instead of an opacity or PM limit for these types of affected facilities.

B. Selection of Thermal Dryer PM and Opacity Emissions Limits

In the April 2008 proposal, we proposed to revise the PM limit for thermal dryers that dry bituminous coal from 0.070 g/dscm (0.031 gr/dscf) to 0.046 g/dscm (0.020 gr/dscf). We received comments that achieving this limit would be prohibitively expensive for modified and

reconstructed units, but that the limit should be lower for new units.

Based on our review of public comments and subsequent analysis, in this supplemental proposal we are proposing separate PM limits for new, reconstructed, and modified units. As discussed in the Thermal Dryer Memo in Docket EPA-HQ-OAR-2008-0260, the physical layout of existing thermal dryers makes it more expensive to reduce emissions from existing dryers than from new or reconstructed units. Therefore, we are proposing to maintain the PM limit for modified facilities at the existing 1976 limit of 0.070 g/dscm (0.031 gr/dscf). We continue to be interested in additional performance test data and information on the ability of modified units to achieve additional PM reductions beyond the present limit and are also considering establishing a lower PM standard between 0.045 g/dscm (0.020 gr/dscf) and 0.070 g/dscm (0.031 gr/dscf) for the final rule. We specifically request comment on all this range of possible standards, including 0.045 g/dscm (0.020 gr/dscf).

Because reconstructed facilities could take design options into account during the reconstruction process, we are proposing a PM limit of 0.045 g/dscm (0.020 gr/dscf) for reconstructed facilities. This level of control has

been demonstrated to be consistently achievable at several existing facilities, and we have concluded that a reconstructed facility could design a PM control strategy based on conventional wet scrubbing that could achieve this emissions rate at all evaporative load rates.

As described in Thermal Dryer Memo in Docket EPA-HQ-OAR-2008-0260, new thermal dryers would likely be designed as either a coal-fired recirculation thermal dryer or an indirect thermal dryer. We have determined that BDT for controlling PM emissions from these types of dryers is a fabric filter. Data collected to date demonstrates that fabric filters on such facilities can achieve emission rates of 0.004 to 0.0031 gr/dscf. As explained below, based on these data and recent permit limits for new thermal dryers using a baghouse, we are proposing a PM limit of 0.023 g/dscm (0.010 gr/dscf) and less than 10 percent opacity for new facilities. This limit would provide an adequate compliance margin for new units and is lower than the limit of 0.046 g/dscm (0.020 gr/dscf) in the April 2008 proposal. The April 2008 proposed limit, however, would have applied to new, reconstructed and modified facilities.

It is important to note that although the standard is based on the use of a fabric filter, a new facility would

not be required to use any specific control technology. Our analysis demonstrates that a new facility could use a once-through dryer design and achieve the proposed standard using a wet scrubber to control PM emissions. We identified two wet-control approaches that an owner/operator of a new facility could use to achieve this limit. The first approach is to use a high-energy venturi scrubber. We analyzed the incremental cost effectiveness of the increased pressure drop necessary to achieve the proposed PM limit for a model thermal dryer (see Thermal Dryer Memo in Docket EPA-HQ-OAR-2008-0260). The incremental control cost of using venturi scrubbers ranged from \$3,100/ton for an emission level of 0.020 gr/dscf to \$16,000/ton for an emission level of 0.0050 gr/dscf.

Based on this analysis, we concluded that an emissions rate of 0.023 g/dscm (0.010 gr/dscf) would be cost effective for a new thermal dryer using a high-energy venturi scrubber to control PM emissions, even in the absence of a baghouse or electrostatic precipitator (ESP). We recognize that no recent coal-fired thermal dryer has been constructed and that this level of control has not yet been demonstrated on a subpart Y affected facility with wet controls. This level of control, however, has been demonstrated at comparable, recently constructed facilities

(see Thermal Dryer Memo in Docket EPA-HQ-OAR-2008-0260). A venturi scrubber, moreover, is not the only wet control strategy an owner/operator could use to control PM emissions. To decrease power requirements, a low pressure tray scrubber could be used to remove the majority of the PM emissions, and then either a wet ESP or cloud chamber could be used to remove the remaining fine PM. Both a wet ESP and cloud chamber have demonstrated an ability to control PM emissions to below 0.023 g/dscm (0.010 gr/dscf). Thus, although wet scrubbing is not considered BDT for controlling PM emissions from new thermal dryers, the proposed level of PM control would be achievable using wet control approaches, such as a wet scrubber.

#### C. Selection of Thermal Dryer SO<sub>2</sub>, NO<sub>x</sub>, and CO Emissions Limits

SO<sub>2</sub> emissions from a thermal dryer are a function of the sulfur content of the fuel burned in the dryer. However, measured SO<sub>2</sub> emissions are often less than what would be theoretically predicted based on the sulfur in the fuel burned assuming all of the sulfur in the fuel is emitted as SO<sub>2</sub>. There are two possible reasons for this discrepancy: either SO<sub>2</sub> emissions are reduced by the wet scrubber installed to control PM or a portion of the SO<sub>2</sub> is adsorbed as sulfuric acid into the pores of the coal being

dried (due to the reaction of the SO<sub>2</sub> with oxygen in the flue gas). Emissions data for SO<sub>2</sub> controls from coal-fired thermal dryers are limited, and at this time it is not possible for us to determine the full extent to which each mechanism is reducing emissions. Based on the emissions data from other sources using venturi scrubbers primarily for PM control, it appears that the majority of SO<sub>2</sub> control occurs as a co-benefit of the wet scrubber. The measurements of SO<sub>2</sub> emissions from thermal dryers with wet scrubbers collected for this review range from 0.02 to 1.9 lb/MMBtu and, for the sources reporting removal efficiencies, overall control efficiencies range from 50 to 98 percent.

Existing facilities presently use two techniques to specifically control SO<sub>2</sub> emissions. The first approach is to spray a caustic solution (e.g., sodium hydroxide, NaOH) on the coal before it enters the drying chamber. The caustic reacts with the SO<sub>2</sub> in the drying chamber and forms a salt (sodium sulfate, Na<sub>2</sub>SO<sub>4</sub>) that is collected in the PM control device. The other approach is to add caustic directly to the wet scrubber fluid and control SO<sub>2</sub> along with PM. Wet scrubbers designed specifically for SO<sub>2</sub> control are able to achieve greater than 95 percent reduction. However, the wet scrubbers used on existing

thermal dryers are designed for PM control and not specifically for SO<sub>2</sub> control. Therefore, high levels of SO<sub>2</sub> control are likely to be difficult to achieve without redesign of the scrubber (e.g., different construction materials to handle the corrosion resulting from use of the caustic solution, scaling deposits, and plugging of liquid lines). Nonetheless, if scaling deposit and plugging of liquid lines were a concern, an owner/operator using a wet scrubber to control SO<sub>2</sub> could switch to newer scrubbing agents with a higher solubility, such as calcium magnesium acetate. Based on the performance of one existing facility and analysis of other venturi scrubbers used to control SO<sub>2</sub> emissions, we have concluded an existing thermal dryer with a wet scrubber could achieve 90 percent reduction without a significant redesign.

As discussed previously, we have concluded that BDT for controlling PM from a new thermal dryer is a fabric filter. PM has historically been the primary pollutant of concern for subpart Y affected facilities. Therefore, in analyzing BDT for SO<sub>2</sub> control, we considered the incremental cost of controls to reduce SO<sub>2</sub> emissions from thermal dryers with fabric filters.

Adding a wet scrubber for the sole purpose of controlling SO<sub>2</sub> emissions beyond 50 percent control (i.e.,

to achieve an additional 40 percent control) has an incremental cost of over \$5,000/ton of SO<sub>2</sub> controlled (see Thermal Dryer Memo in Docket EPA-HQ-OAR-2008-0260). This high cost is partially due to the fact that most thermal dryers are not typically large, ranging from 100 to 200 MMBtu/hr, and are not major sources of SO<sub>2</sub> emissions; these factors result in the fixed costs of scrubbing units being high for smaller facilities. In addition to the high costs, facilities with wet scrubbers must dispose of the scrubber sludge. For these reasons, we have concluded that wet scrubbers are not a cost-effective control technology, and are not BDT for this source category.

For a lower cost option, we evaluated the use of dry sorbent injection or spraying caustic on the coal prior to the drying chamber. The caustic approach is presently used at one facility, and the salt produced is removed by the PM control device. We do not have detailed information on the contribution of each mechanism on overall SO<sub>2</sub> control. However, if we assume the same absolute amounts, in lb/MMBtu, are controlled by absorption onto the coal and as a co-benefit of the venturi scrubber, as described in the Thermal Dryer Memo in Docket EPA-HQ-OAR-2008-0260, the caustic spray is achieving approximately 50 percent reduction in theoretical SO<sub>2</sub> emissions. We have not

identified any facilities which apply sorbent injection to a thermal dryer, but it has been applied to industrial and utility boilers, and the technology is directly transferable to coal-fired thermal dryers. Various companies supply calcium- and sodium-based sorbent reagents, and the technology can be used at any facility with injection locations, sufficient residence time, and a suitable temperature range. A new thermal dryer could be designed to include an injection site into the combustion gases above the burners and prior to the drying chamber. An advantage of using sorbent injection in combination with a baghouse is that the sorbent forms a cake on the bags and increases SO<sub>2</sub> control. Sorbent SO<sub>2</sub> control efficiencies vary between 30 and 60 percent for calcium-based agents and can be as high as 90 percent for sodium-based agents. Higher levels of control have been achieved in boilers with sorbent injection, but this control has not been applied to thermal dryers and we have concluded that 50 percent would be a reasonable expectation. Higher percent reductions would be technically achievable with the addition of more sorbent, but incremental costs would increase. The cost per ton of SO<sub>2</sub> controlled using sorbent injection is approximately \$1,000 per ton and is considered cost effective for this source category.

For the reasons described above, we have concluded that dry sorbent injection into the thermal dryer and spraying caustic onto the coal prior to the thermal dryer are both BDT for SO<sub>2</sub> reduction from new, modified, and reconstructed thermal dryers. Also for the reasons described above, we have concluded that a 50 percent SO<sub>2</sub> reduction is the standard that can be achieved by the application of BDT for controlling SO<sub>2</sub> emissions to a thermal dryer. This standard reflects the degree of emissions reduction achievable by the technology available and provides an adequate compliance margin for both sorbent injection into the thermal dryer and caustic spray onto the coal prior to the drying chamber.

We are also proposing to establish a maximum emission rate of 520 ng/J (1.2 lb/MMBtu). We believe it is appropriate to establish this upper limit, in addition to the 50 percent reduction requirement, because control is easier and more cost-effective at high pollutant concentrations. Adding a wet scrubber to strictly control SO<sub>2</sub> emissions for thermal dryers with an actual stack emissions rate of 520 ng/J (1.2 lb/MMBtu) or more has an incremental cost of less than \$3,000/ton of SO<sub>2</sub> controlled and is considered cost-effective for this source category.

Finally, our analysis also demonstrates that

facilities with lower SO<sub>2</sub> emission rates may not be able to consistently achieve design rate percent reduction efficiencies because control is more technically difficult at lower pollutant concentrations. For this reason we are setting a lower, alternate limit of 85 ng/J (0.20 lb/MMBtu). A source that can meet the lower alternate limit does not also need to demonstrate that it is reducing SO<sub>2</sub> emissions by a specified percent. This approach is consistent with the approach used in the NSPS for steam generating units, 40 CFR part 60, subparts Da, Db, and Dc. We continue to be interested in additional SO<sub>2</sub> performance test data from thermal dryers and comparable facilities using caustic sprays, sorbent injection, and scrubbers to control SO<sub>2</sub> emissions and are currently considering an SO<sub>2</sub> percent reduction requirement of between 50 and 90 percent for the final rule.

We are also proposing to add a combined NO<sub>x</sub> and CO emission limit for thermal dryers. As explained below, we have determined that advanced combustion controls are BDT for both NO<sub>x</sub> and CO emissions from thermal dryers. Such controls can achieve both low NO<sub>x</sub> and CO emissions. In addition, the pollutant emissions rates are related. NO<sub>x</sub> reduction techniques that rely on delayed combustion and lower combustion temperatures tend to increase incomplete

combustion and result in a corresponding increase in CO and volatile organic compound (VOC) emissions. To account for variability in combustion properties and to provide additional compliance strategy options for the regulated community, while still providing an equivalent level of environmental protection, we are proposing to establish a combined NO<sub>x</sub> and CO limit. The combined limit for modified and reconstructed units would be 520 ng/J (1.0 lb/MMBtu). This level has been demonstrated as being achievable for existing units (see Thermal Dryer Memo in Docket EPA-HQ-OAR-2008-0260). The combined limit for new sources would be 280 ng/J (0.65 lb/MMBtu). For new units, we evaluated what emission limits could be achieved by application of BDT for both NO<sub>x</sub> and CO, and relied on this evaluation to develop the combined standard. We have previously established combined emissions limits for pollutants that are inversely related in the NSPS for stationary compression ignition internal combustion engines, 40 CFR part 60, subpart IIII.

We continue to be interested in additional NO<sub>x</sub> and CO performance test data from thermal dryers and comparable facilities using combustion controls to control both NO<sub>x</sub> and CO emissions and are also considering, and requesting comment on, a combined limit of between 390 ng/J (0.90

lb/MMBtu) and 470 ng/J (1.1 lb/MMBtu) for modified and reconstructed units and between 200 ng/J (0.47 lb/MMBtu) and 300 ng/J (0.70 lb/MMBtu) for new units. In addition, we are continuing to consider separate limits and specifically request comment on whether a combined limit is appropriate.

To determine the NO<sub>x</sub> and CO emission reductions achievable from the application of BDT to thermal dryers, we examined the nature of the emissions, demonstrated control technologies, and the removal efficiencies of those technologies. NO<sub>x</sub> emissions from coal thermal dryers primarily occur via two mechanisms. The main source, thermal NO<sub>x</sub>, is formed when nitrogen and oxygen in the combustion air react at high temperatures. Fuel NO<sub>x</sub> is due to the reaction of fuel-bound nitrogen compounds with oxygen. NO<sub>x</sub> emissions can be minimized through two general control strategies: combustion controls and post-combustion controls. Combustion controls limit the formation of NO<sub>x</sub>, whereas post-combustion controls convert NO<sub>x</sub> to nitrogen and oxygen prior to release to the atmosphere. We are not presently aware of any coal-fired thermal dryers that use post-combustion controls.

Post-combustion controls include selective catalytic reduction (SCR), selective non-catalytic reduction (SNCR),

non-selective catalytic reduction (NSCR), and catalytic oxidation/absorption (SCONO<sub>x</sub>). For reasons presented in the Thermal Dryer Memo in Docket EPA-HQ-OAR-2008-0260, none of these control options are technically feasible control options for a thermal dryer and they were not evaluated as viable control technologies. However, we continue to be interested in additional information that would indicate if SNCR could be successfully integrated into a new thermal dryer and specifically request comment on this issue. At this time, we have determined that combustion controls are the only viable NO<sub>x</sub> controls identified that could be used across the range of thermal dryers presently used in the United States and, thus, we have determined that combustion controls constitute BDT for NO<sub>x</sub> emissions from thermal dryers. Available combustion controls include low NO<sub>x</sub> burners (LNB), staged combustion, co-firing with natural gas or liquefied petroleum gas (LPG), and flue gas recirculation (FGR). These control options are described in the Thermal Dryer Memo in Docket EPA-HQ-OAR-2008-0260.

The practical operating range of existing thermal dryers is relatively small, and redesign of the thermal dryer would be required to obtain significant NO<sub>x</sub> reductions. However, we have identified several existing thermal dryers that have demonstrated NO<sub>x</sub> emissions of less

than 0.60 lb/MMBtu. Our analysis demonstrates that existing facilities could achieve this limit through combustion controls alone.

Our analysis demonstrates that new thermal dryers could be constructed to comply with a NO<sub>x</sub> limit of 170 ng/J (0.40 lb/MMBtu). Although utility-size units burning bituminous coal can achieve NO<sub>x</sub> limits of less than 130 ng/J (0.30 lb/MMBtu), NO<sub>x</sub>-reducing technologies for smaller thermal dryers are more limited. We reviewed permits issued over the past decade and only found NO<sub>x</sub> requirements for boilers less than 250 MMBtu/hr for six new comparable small coal-fired boilers. Three were circulating fluidized bed (CFB) boilers, a design that is not generally used in dryers. Permit conditions for the other three boilers were 110, 170, and 300 ng/J (0.25, 0.40, and 0.70 lb/MMBtu). The highest permit limit had a corresponding low CO standard, which could explain the unusually high NO<sub>x</sub> standard. This NO<sub>x</sub> emissions rate could be achieved for either a new stoker or pulverized coal-based thermal dryer using combustion controls alone. Furthermore, we reviewed data developed by State permitting authorities which list combustion controls as able to cost effectively achieve over 50 percent reduction for coal-fired industrial boilers from an uncontrolled emissions rate of 300 ng/J (0.70

lb/MMBtu). The cost per ton of NO<sub>x</sub> controlled using combustion controls is less than \$2,000 per ton and is considered cost effective for this source category.

CO emissions are intermediate products produced by the incomplete combustion of hydrocarbons. The emissions are formed in hot, oxygen-depleted regions of the combustion chamber and at the edges of the lean flame zone where the temperature is lower. Short residence times also contribute to CO formation. During complete combustion, CO reacts with various oxidants to form carbon dioxide (CO<sub>2</sub>) through recombination reactions. However, these recombination reactions cannot proceed to completion if the combustion temperature is low or there is a deficient amount of oxidants in the combustion gas. VOC emitted from thermal dryers are a result of both incomplete fuel combustion and volatile matter released from the coal bed as it is heated and dried.

Controls to minimize both CO and VOC include thermal oxidation and flaring, catalytic oxidation, catalytic incineration, and good combustion practices. For reasons presented in the Thermal Dryer Memo in Docket EPA-HQ-OAR-2008-0260, thermal oxidation and flaring, catalytic oxidation, and catalytic incineration are not technically feasible control options for a thermal dryer, and they were

not evaluated as viable control technologies. In addition, high levels of excess air can be used to control CO emissions and VOC absorbers can be used to control VOC emissions. However, high levels of excess air increase NO<sub>x</sub> emissions and the PM emissions in a thermal dryer exhaust would plug the pores in the absorber bed; therefore, such controls are also not considered to be a viable control techniques. For these reasons, we conclude that good combustion practices constitute BDT for CO emissions from thermal dryers.

Good combustion practices limit the formation of CO and VOC by providing sufficient oxygen in the combustion zone for complete combustion to occur. Based on a review of CO emissions rates from existing thermal dryers, we are basing the combined NO<sub>x</sub> and CO limit on a CO emissions rate of 190 ng/J (0.45 lb/MMBtu) for modified and reconstructed thermal dryers. We have identified several existing thermal dryers that are achieving this emissions rate with combustion controls alone. Because we have not identified a method for control of VOC emissions beyond combustion controls, we are not proposing a separate limit for VOC emissions. However, by setting an emissions limit that contains a CO emissions rate, we are minimizing the VOC emissions that result from incomplete combustion. The VOC

emissions from the coal bed itself are variable, and we concluded that we are unable to set a standard that would be achievable for variable coal types across the country.

For new thermal dryers, we concluded that a CO emissions rate of 110 ng/J (0.25 lb/MMBtu) is the appropriate rate to use as part of the basis for the combined NO<sub>x</sub> and CO limit. Although new utility-sized units can reduce CO emissions to 0.15 lb/MMBtu, technologies are more limited for the smaller thermal dryers. However, because new thermal dryers would likely use a gas recirculation design, both VOC and CO emissions would be minimized. The exhaust gases would be recirculated to the high temperatures of the combustion chamber and would oxidize some of the emissions to CO<sub>2</sub> and water. Of the three non-CFB permits for small coal-fired boilers, the requirements over the past decade were 0.02, 0.21, 0.23 lb/MMBtu. We also reviewed information on coal-fired boilers developed for State permitting agencies, and the basis limit for CO is consistent with the values listed in those references. In addition, we reviewed the CO data collected for coal-fired industrial boilers in support of the Clean Air Act (CAA) section 112 maximum achievable technology (MACT) standards. Of the 60 industrial boilers with CO emissions listed in lb/MMBtu, the average was 40

ng/J (0.095 lb/MMBtu), and the range was 0.1 to 230 ng/J (0.0002 to 0.54 lb/MMBtu). At this time, we do not have the corresponding NO<sub>x</sub> emissions data to determine if the low CO emissions rates have a corresponding high NO<sub>x</sub> emissions rate. These data indicate that 92 percent of existing small coal-fired boilers are achieving a rate of 110 ng/J (0.25 lb/MMBtu) and 98 percent are achieving a rate of 190 ng/J (0.45 lb/MMBtu).

D. Selection of Pneumatic Coal-Cleaning Equipment, Coal Processing and Conveying Equipment, Coal Storage Systems, and Transfer and Loading System PM and Opacity Limits

We are proposing standards for a wide variety of coal handling equipment. For open storage piles and roadways, we are proposing, consistent with CAA section 111(h), to establish work practice standards. For other coal handling equipment, including pneumatic coal-cleaning equipment, coal processing and conveying equipment, coal storage systems, and transfer and loading systems, we are establishing PM and/or opacity emission limits.

1. Open Storage Piles and Roadways

CAA section 111(h) provides that if, in the judgment of the Administrator, it is not feasible to prescribe or enforce a standard of performance, EPA may among other things, promulgate work practice, design, or equipment

standards. A determination that the emissions from the sources cannot be measured due to technological or economic limitations may be used to support a determination that it is not feasible to establish standards of performance. It is difficult and prohibitively expensive to measure actual PM emissions from individual open storage piles or roadways. Further, the size of open storage piles and the mobile nature of coal dust from vehicle tires on roadways make the use of Method 9 opacity observations unreasonable in many situations. For these reasons, the Administrator is proposing to determine that it is not feasible to establish an emissions standard for open storage piles or the coal dust associated with roadways. This determination would support the proposed work practice standards outlined below.

Based on that proposed determination, we are proposing to establish the following work practice standards for open storage piles and coal dust from roadways. We propose to require owners/operators of open storage piles and roadways associated with coal preparation plants to develop and comply with a fugitive dust emissions plan to control fugitive PM emissions. These fugitive dust plans would be required to contain the elements described below.

For open storage piles, we are proposing to require

the fugitive dust plan to prescribe the use of an enclosure, chemical suppressants (including encrusting agents), wet suppression, a wind barrier, or a vegetative cover to control emissions.

We are also proposing to require that the fugitive dust plan include procedures for limiting emissions from all types of "coal processing and conveying equipment" at a coal preparation plant. Although the source category listing covers the entire coal preparation plant, we have not previously established emission limits for all facilities located at the plant. Because open storage piles were not previously considered affected facilities, unloading and conveying operations to an open storage pile were also not regulated. Only unloading operations that were directly loaded into receiving equipment were subject to an opacity limit. Because we are proposing to include open storage piles as an affected facility, the loading, unloading, and conveying operations of open storage piles would also be covered under the fugitive dust emissions control plan, but not subject to an opacity limit.

Open storage piles also include piles of coal that have been loaded into trucks, railcars, and/or ships. At this time, we are not proposing to require that the fugitive dust emissions control plan address emissions from

these piles. We identified two potential control options for these piles: covers and chemical encrusting agents. However, we have determined it is not practical to require these controls. First, the majority of fugitive emissions occur while the coal is in transit outside the physical boundaries of the coal preparation plant. The emissions from the piles while they are at the coal preparation plant have not been shown to be significant. Second, it would not be economically feasible to require end users to cover the coal or spray chemical suppressants as the coal arrived on the property of the owner/operator and then proceed to unload the coal.

We are also proposing to require that the permitting authority approve the fugitive dust plans required by this subpart and to grant specific authority to the permitting authority to approve alternate technologies to control fugitive emissions from open storage piles and coal dust from roadways. The permitting authority may approve the use of such alternative technologies in the fugitive dust plan if it has determined that the approved technology provides equivalent overall environmental protection.

For roadways, we are proposing to require that the fugitive dust plan require the owner/operator to pave the roads, wet the road surface, sweep up excess coal dust, or

install tire washes to remove entrained dust to control PM emissions. For roadways that do not leave the property (e.g., haul roads at coal mines), the owner/operator of the coal preparation plant would not have to include such requirements in the fugitive dust plan because of the particular impracticality of, for example, paving roadways that are frequently re-routed.

## 2. Coal Handling Equipment

In the April 2008 proposal, we concluded that a fabric filter was BDT for controlling PM emissions from coal-handling equipment processing subbituminous and lignite coals. That determination provided the basis for the proposed PM and opacity standards, and also for our proposal requiring that coal-handling equipment processing subbituminous and lignite coals be vented (i.e., connected to a duct or stack) such that a PM performance test could be conducted on the contained exhaust gas stream. As discussed more fully in the Coal Handling Memo in Docket EPA-HQ-OAR-2008-0260, multiple commenters disagreed with our BDT determination for several reasons. First, they noted that the use of baghouses to collect subbituminous coal dust presents potential safety concerns. For this reason alone, the commenters argued that EPA should not use a baghouse as the basis for the emissions rate. Second,

their comments noted that although the use of baghouses frequently results in low stack grain loadings, the practice of returning the collected dust to the conveyor belt may cause potential problems with fine coal dust emissions later in the coal handling process, decreasing their overall effectiveness. Finally, commenters identified multiple State best available control technology (BACT) determinations that allow sources to remove existing baghouses and replace them with passive enclosure containment systems (PECS), fogging systems, or wet extraction scrubbers. Neither PECS nor fogging systems can be vented, so the requirement to conduct a PM performance test conflicts with such State BACT determinations.

Based on our review of public comments and subsequent analysis, we have concluded that a baghouse is not the only technology that is BDT for coal-handling equipment used on subbituminous and lignite coals. Depending on the plant-specific circumstances, all four technologies (fabric filters, PECS, fogging systems, and wet extraction scrubbers) can control PM emissions equally well. They all provide equivalent levels of emissions reductions; in addition, fogging systems, PECS, and the wet extraction systems often have lower costs than baghouses. For this reason, we are no longer proposing to require that all

emissions from such facilities be vented and are proposing PM and opacity limits for coal-handling operations based on the level of reduction achievable by these four technologies.

In the April 2008 proposal, we also determined that the use of chemical suppressants was BDT for coal-handling equipment processing bituminous coal. This determination also provided a basis for the proposed PM and opacity limits. Multiple commenters disagreed with that determination, stating that wet suppression is often used to control fugitive PM from coal-handling operations processing bituminous coal and that this control approach results in limited visible emissions from the operation.

Based on our review of public comments and subsequent analysis, we have reaffirmed our determination that BDT for coal-handling equipment processing bituminous coal is the use of chemical suppressants. The proposed opacity limit is based on that BDT determination. However, it is important to note that although our BDT analysis identifies a specific technology as BDT, the actual requirement in the rule is an opacity limit, and an owner/operator can use any combination of controls at a particular site as long as it demonstrates compliance with the opacity limit. The owner/operator is not obligated to use the specific

technology identified as BDT.

Since the April 2008 proposal, we have performed an extensive data-gathering effort for both PM performance test data and opacity observations (both Method 9 and Method 22) on recently installed coal-handling equipment. This data gathering is discussed in more detail in the Coal Handling Memo in Docket EPA-HQ-OAR-2008-0260.

In the April 2008 proposal, we proposed to establish a PM limit of 0.011 g/dscm (0.0050 gr/dscf) for coal-handling equipment processing subbituminous and lignite coals. We also proposed to require that all such equipment vent emissions such that mass PM emissions from the facility could be measured. Multiple commenters disagreed with the PM limit, saying that it is technically difficult to achieve at some locations and is more stringent than the BACT determinations from multiple State permitting authorities. In addition, commenters suggested we collect more PM emissions data specific to coal handling operations.

As described earlier, we have reconsidered our prior BDT determination and are now proposing a determination that any of four technologies - fabric filters, PECS, fogging systems, and wet extraction scrubbers - may be BDT, and we are establishing PM and opacity limits consistent

with that determination. Only the fabric filter technology and wet extraction scrubbers are typically vented; PECS and fogging systems technologies rely on reduced air flow and as such could not be used if emissions are vented.

Requiring venting of either PECS or fogging systems would conflict with the design criteria of both approaches. In this proposal, we are proposing to establish both PM and opacity limits that would apply to all emissions that are vented, and an opacity limit that would apply to all emissions that are not vented.

Based on our review of public comments and subsequent analysis, we are proposing a change from the April 2008 proposed PM limit of 0.011 g/dscm (0.0050 gr/dscf) to 0.023 g/dscm (0.010 gr/dscf). The PM performance test data specific to coal-handling equipment ranged from 0.001 to 0.011 gr/dscf. Based on the performance test data, we have concluded that although 0.011 g/dscm (0.0050 gr/dscf) has been shown to be achievable, due to the limited data set, we are not convinced that such a limit would be achievable on a long-term basis for all affected facilities across the country. However, we have concluded that 0.023 g/dscm (0.010 gr/dscf) is achievable for all sizes of affected facilities and provides an adequate compliance margin to be consistently achievable on a long-term basis for control

technologies that are vented through a stack. As shown in docket entries EPA-HQ-OAR-2008-0260-0003.1 ("Discussion of Particulate Matter Control Concepts for Coal Handling NSPS") and -0035.1 ("Comments of the Utility Air Regulatory Group), this standard is also consistent with the majority of recently issued permits.

We continue to be interested in additional performance test data from recently installed fabric filters and wet extraction scrubbers and are requesting comment on a PM standard of 0.020 g/dscm to 0.025 g/dscm (0.0090 gr/dscf to 0.011 gr/dscf) for the final rule. All the PM performance test data collected for this supplemental proposal show emissions equal to or less than 0.025 g/dscm (0.011 gr/dscf). However, the source with the highest PM emissions concentration has permit requirements in lb/hr of PM emissions and the design emissions rate of those fabric filters is unclear. All of the other PM performance test data, including the individual tests runs, are below 0.020 g/dscm (0.0090 gr/dscf).

In the April 2008 proposal, we proposed to amend the opacity limit for coal-handling equipment from the existing 1976 limit of less than 20 percent to less than 5 percent. Multiple commenters opposed that proposal for several reasons. First, the data used for the proposal were

largely based on data collected from the nonmetallic minerals processing industry. In addition, commenters noted that because individual Method 9 opacity observations are made in increments of 5 percent, a less than 5 percent opacity limit would mean that the presence of any visible emissions would result in a violation. Commenters asserted that it would be difficult to guarantee that each affected facility will operate with no visible emissions at all times. Also, because the proposed standard is based on a 6-minute reading, there would be no opportunity for an owner/operator to fix a problem prior to being in violation of the standard. Further, because opacity from fugitive sources is more difficult to measure than from point sources, they argued that the less than 5 percent limit was unreasonable.

It is important to note that the April 2008 proposed limit of less than 5 percent opacity is not the same as a no visible emissions limit. A Method 9 performance test is conducted by taking one or more sets of 24 observations at 15-second intervals over a 6-minute period. Each observation is reported in 5 percent increments. The 6-minute average is calculated by averaging all observations made over the 6-minute period. Thus, a 6-minute average based on both 0 and 5 percent opacity readings (or higher),

would not exceed the 5 percent standard as long as the average is less than 5 percent. In contrast, a "no visible emissions" limit for a Method 9 performance test would require all opacity readings to be 0 percent.

Nonetheless, based on our review of public comments and subsequent analysis, in this supplemental proposal we are proposing to change the opacity limit for all subpart Y coal-handling facilities to no greater than 5 percent. We gathered data on coal-handling operations at 25 coal preparation plants, and the reported highest 6-minute average opacity reading was 5 percent for a recently installed facility. Therefore, we have concluded that this is an appropriate opacity limit for new sources.

We are also specifically requesting comment on whether an opacity limit of less than 10 percent is more appropriate than a limit of no greater than 5 percent. The data we collected were primarily from initial compliance tests, and we are requesting comment on whether the 5 percent limit is achievable on a long-term basis for all subpart Y coal-handling facilities under all operating conditions, including windy dry periods, and whether the limit provides an adequate compliance margin. We are also requesting comment on establishing different opacity limits for each type of coal-handling operation.

Finally, we are proposing to require periodic Method 9 performance tests to assure compliance with the no greater than 5 percent standard. However, to create an incentive for sources to operate with minimal visible emissions (visible emissions readings less than 5 percent of the time using Method 22) whenever possible, we are proposing to allow owners/operators of facilities with the most recent Method 9 performance test of 3 percent or less opacity to qualify for reduced monitoring requirements.

Owners/operators of affected facilities operating with minimal visible emissions would be able to elect to perform periodic short opacity observations using Method 22 as an alternative to Method 9 performance tests. Facilities with visible emissions would have to perform periodic Method 9 performance tests and, therefore, would have an incentive to operate without visible emissions. We believe it is important to provide these incentives because the data we have gathered suggest that many affected facilities should be able to operate with zero opacity much of the time if they are being properly operated and maintained.

#### E. Selection of Monitoring Requirements

In the April 2008 proposal, we proposed to require initial and annual PM performance testing for each subpart Y affected facility with an emissions limit. After further

consideration, and for the reasons explained below, we have concluded that it would be more appropriate to require testing every other year of affected facilities operating at 50 percent or less of the applicable limit and reduced testing requirements for facilities with relatively low potential emissions.

Reducing the frequency of compliance testing from annual to every other year for owner/operators of affected facilities operating at 50 percent or less of the applicable limit both reduces compliance costs and could provide benefits to the environment by recognizing the environmental benefit of owners/operators installing controls beyond what is required by the NSPS. By reducing monitoring requirements, we are recognizing the increased environmental benefit of control equipment that is both designed and operated in such a manner to exceed the new source performance requirements and are incentivizing the development of improved control technology. Also, if an affected facility is tested as operating well below the standard, there is less of a chance of exceeding the limit.

For smaller facilities with lower potential emissions, we have concluded the cost of the testing proposed in the April 2008 proposal is not justified by the information that would be gained from the testing. In addition, we are not

aware of an economically feasible way to measure PM emissions from vent filters. Vent filters are typically smaller than 2,000 actual cubic feet per minute (acfm), and the exemption for affected facilities with potential emissions of less than 1.0 Mg (1.1 tons) equates to 2,800 standard cubic feet per minute (scfm) at a design emissions rate of 0.010 gr/dscf. Furthermore, smaller baghouses often do not come equipped with sampling access. It would cost approximately \$6,000 to add sampling ports and sampling platforms to each baghouse. Considering that baghouse operations are often intermittent, potential emissions from deterioration over time are expected to be low. Instead of requiring annual performance tests, we are proposing to require that each baghouse be monitored for visible emissions on an ongoing basis. We have concluded that these visual observations should detect significant problems such as holes and tears in the filter medium or if the filter becomes unseated. Under these circumstances, visible emissions will increase dramatically because part of the exhaust gas is emitted directly to the atmosphere without any emissions reduction, resulting in readily apparent visible emissions.

Similarly, for an owner/operator of up to five affected facilities of the same type using identical control

equipment with potential annual emissions of less than 10 Mg each at a coal preparation plant, we are proposing to allow a performance test on a single affected facility as a check on the compliance of all of the affected facilities with the emissions standard. We are allowing this option only where performance test results are 90 percent of the standard, the design emissions rate of the control device is less than or equal to the applicable emission limit, and each affected facility is tested at least once every 5 years. The facilities must perform the applicable ongoing monitoring, and adhere to manufacturer's recommended maintenance procedures. We concluded that for these sources the test results at one control device will likely be representative of other similar control devices, and that the additional compliance costs associated with testing each affected facility would not result in significant emissions reductions.

We are proposing to require bag leak detection systems for large baghouses. We considered, but decided against, requiring installation and use of a bag leak detection system at each affected facility using a fabric filter to control PM. These detectors are useful and effective for early detection of bag leaks; however, the capital costs of a bag leak detection system can be as much as \$24,000 and

the annualized costs might be as much as \$7,000 (including capital recovery). These costs are considered unjustifiably high for smaller baghouses with low potential emissions at subpart Y affected facilities. Because potential PM emissions from a bag leak are more significant for larger baghouses, we are proposing to require a bag leak detection system for owners/operators of baghouses with a potential annual emissions rate of 25 Mg (28 tons) or more. This equates to a baghouse of approximately 70,000 scfm with a design emissions rate of 0.010 gr/dscf, or 140,000 scfm with a design emissions rate of 0.0050 gr/dscf.

F. Selection of Opacity Monitoring Requirements for Pneumatic Coal-Cleaning Equipment, Coal Processing and Conveying Equipment, Coal Storage Systems, and Transfer and Loading System

In the April 2008 proposal, we proposed to require three 1-hour Method 22 observations to monitor for visible emissions at all coal-handling affected facilities. With this approach an owner/operator could perform the initial readings on the first day of the month and not perform a subsequent observation for 30 days. When a control device is operating properly there should be minimal visible emissions and a 1-hour observation would not provide any significant additional useful information than a 10-minute

observation. In addition, allowing extended periods of operation between observations could allow as much as 30 days before a malfunctioning piece of control equipment is identified. Therefore, we have concluded it is appropriate to decrease the length of each observation to a minimum of 10 minutes, but to increase the frequency to daily observations. By taking more frequent observations, we assure that control equipment is consistently well operated.

G. Required Electronic Reporting

We are also proposing to require owners/operators to submit compliance test data electronically to EPA. Compliance test data are necessary for compliance determinations and for EPA to conduct 8-year reviews of CAA section 111 standards. The data are also used for many other purposes such as developing emission factors and determining annual emission rates. In conducting 8-year reviews, EPA has found it burdensome and time-consuming to collect emission test data because the data are often stored at varied locations through differing storage methods. One improvement in recent years is the availability of stack test reports in electronic format as a replacement for paper copies. The proposed option to submit source test data electronically to EPA would not

require any additional performance testing. In addition, when a facility submits performance test data to WebFIRE, there would be no additional requirements for data compilation; instead, we believe industry would greatly benefit from improved emissions factors, fewer information requests, and better regulation development as discussed below. Because the information that would be reported is already required in the existing test methods and is necessary to evaluate conformance to the test method, facilities would already be collecting and compiling these data. One major advantage of electing to submit source test data through the Electronic Reporting Tool (ERT), which was developed with input from stack testing companies (who already collect and compile performance test data electronically), is that it would provide a standardized method to compile and store all the documentation required by this rule. Another important benefit of submitting these data to EPA at the time the source test is conducted is that it will substantially reduce the effort involved in data collection activities in the future. Specifically, because we would already have adequate source category data to conduct NSPS reviews, there would be fewer data collection requests (e.g., letters issued under the authority of CAA section 114). This results in a reduced

burden on both affected facilities (in terms of reduced manpower to respond to data collection requests) and EPA (in terms of preparing and distributing data collection requests). Finally, another benefit of electronic data submission is that these data will greatly improve the overall quality of existing and new emissions factors by supplementing the pool of emissions test data upon which a particular emission factor is based, and by ensuring that the data are more representative of current industry operational procedures. A common complaint from industry and regulators is that emissions factors are out dated or not representative of a particular source category. Additional performance tests results would ensure that emissions factors are updated more frequently and are more accurate. In summary, receiving the test data already collected for other purposes and using them in the emissions factors development program will save industry, State/local/tribal agencies, and EPA time and money.

Data would be submitted electronically to the EPA database WebFIRE, which is a web site accessible through the EPA TTN. The WebFIRE Web site was constructed to store emissions test data for use in developing emission factors. A description of the WebFIRE database can be found at <http://cfpub.epa.gov/oarweb/index.cfm?action=fire.main>.

The ERT is an interface program that transmits the electronic report through EPA's Central Data Exchange (CDX) network for storage in the WebFIRE database. Although ERT is not the only electronic interface that can be used to submit source test data to the CDX for entry into WebFIRE, it is the most straightforward and easy way to submit data. A description of the ERT can be found at [http://www.epa.gov/ttn/chief/ert/ert\\_tool.html](http://www.epa.gov/ttn/chief/ert/ert_tool.html). The ERT can be used to document the conduct of stack tests data for various pollutants, including PM (EPA Method 5 in appendix A-3), SO<sub>2</sub> (EPA Method 6C in appendix A-4), NO<sub>x</sub> (EPA Method 7E in appendix A-4), CO (EPA Method 10 in appendix A-4), cadmium (Cd) (EPA Method 29 in appendix A-8), lead (Pb) (Method 29), mercury (Hg) (Method 29), and hydrogen chloride (HCl) (EPA Method 26A in appendix A-8). The ERT does not currently accept opacity data or CEMS data.

#### H. Addition of Petroleum Coke and Coal Refuse to the Definition of Coal

Petroleum coke and coal refuse are useful boiler fuels, have similar PM emissions as primary coals, and the same equipment is used to control PM emissions from the handling of primary coals, petroleum coke, and coal refuse. Therefore, we are proposing to amend the definition of coal in subpart Y to include petroleum coke and coal refuse

(after [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]). The standards in the original 1976 subpart Y were based on data from coal preparation plants processing bituminous coal at mines. However, the original applicability of subpart Y was intentionally broad, and covered processing of all coal ranks and coal processing at end-user locations (owner/operators of boilers, coke ovens, etc.), as the mechanical processing of coal is the same regardless of location.

Petroleum coke, a carbonaceous material, is a by-product residual from the thermal cracking of heavy residual oil during the petroleum refining process. Petroleum coke has a superior heating value and low ash content compared to coal. However, depending on the original crude feedstock, it may contain greater concentrations of sulfur and metals, making it less attractive as a boiler fuel. Historically, petroleum coke has been priced at a discount compared to coal. Because of the increased use of heavier crudes and more efficient processing of refinery residuals, U.S. and worldwide production of petroleum coke is increasing and is expected to continue to grow.

Coal refuse, a by-product of coal mining and cleaning operations, is generally a high ash (non-combustible rock), low Btu material. It is cost-prohibitive to transport

because of the weight per amount of energy that can be extracted, and is usually burned close to the point of generation. Large volumes of coal refuse began to accumulate at mining sites when mining first began in the Appalachians in the 1970s. Current mining operations continue to generate coal refuse; estimates show that up to 1 billion tons of coal refuse were generated in 2007 alone. When subpart Y was originally published in 1976, there was no way to cost-effectively dispose of coal refuse. Also, laws requiring the stabilization and reclamation of mining sites were not established until the late 1970s, after subpart Y was originally promulgated. After the late 1970s, mining operations began to process coal refuse. With the development of fluidized beds, it is burned for energy and is used for other non-combustion products.

Petroleum coke can be interchanged with primary coals in pulverized coal boilers, fluidized beds, and stoker boilers. Coal refuse can be substituted for primary coals in fluidized beds and stoker boilers. Petroleum coke and coal refuse are burned in the same boilers as primary coals at the coal preparation plant and are processed alongside the primary coals. The health impacts of PM from petroleum coke and primary coals are similar; coverage of petroleum coke would therefore further protect public health.

The approach proposed is consistent with subparts Db and Dc, the large and small industrial boiler NSPS. Both subparts include petroleum coke and coal refuse under the definition of coal. Subpart Da, the utility boiler NSPS, was published prior to the industrial boiler NSPS, and only includes coal refuse in the definition of coal. At the time subpart Da was promulgated, petroleum coke was not considered to be "created for the purpose of creating useful heat" and hence was not used in the fossil fuel capacity as it is today.

#### I. Additional Amendments

We are proposing to change the title of subpart Y to more accurately reflect the affected facilities subject to subpart Y. The original applicability included affected facilities that some in the regulated community term "processing" facilities and would not call those operations "preparation" even though the original rulemaking used "preparation" more broadly. The revision is strictly intended to clarify the rule and not change the applicability.

The definitional amendments and additional amendments are intended to implement aspects of the rule discussed earlier and to update the American Society of Testing and Materials (ASTM) test methods for the different coal ranks.

Also, because cyclonic flow is not used in subpart Y, its removal would not impact the rule.

We have concluded that it is not appropriate or beneficial to the public health to require an affected facility that is not currently in operation to startup to demonstrate compliance with the NSPS. Commencing operation strictly for the purposes of demonstrating compliance is an unnecessary cost and increases emissions.

#### J. Emissions Reductions

EPA believes that the proposed amendments would not significantly impact the overall compliance costs estimated for the original proposal, \$3 million, and would continue to have an insignificant economic impact. However, EPA acknowledges that the overall emissions reductions that would result from the proposed amendments and associated costs of control are difficult to quantify precisely in advance.

For thermal dryers and pneumatic coal-cleaning equipment, the proposed amendments would significantly tighten control requirements. Because these controls apply to new sources not yet in operation, it is difficult to quantify the aggregated emissions reductions or costs for those reductions in advance. However, we anticipate that there will be only a limited number of new sources with

thermal dryers or pneumatic coal-cleaning equipment, so the overall costs associated with the proposed amendments will likewise be limited. As to benefits, EPA believes that the proposed amendments are necessary because they would help to protect the public health and the environment by assuring that appropriate controls would be installed on future new thermal dryers and pneumatic coal-cleaning equipment should any be built.

The proposed pneumatic coal-cleaning PM standard is 40 percent lower than the existing standard. For thermal dryers, the proposed PM standard is one-third of the existing limit. The proposed SO<sub>2</sub> standard and combined NO<sub>x</sub>-CO standard for these sources would reduce emissions by 50 percent from current uncontrolled levels. For the model thermal dryer used in the costing analysis, this equates to estimated annual reductions of 100 tons each of PM and SO<sub>2</sub> and 200 tons of combined NO<sub>x</sub> and CO.

For coal handling operations, the proposed amendments would reduce the current opacity standard from less than 20 percent to no greater than 5 percent. The proposal would thus reduce the opacity standard by 75 percent. Opacity is an indirect means to address the presence of PM emissions and not an actual direct measurement of the mass of PM emissions. Thus, in order to determine the precise amount

of PM reductions that would be associated with this change in the opacity standard, we would need actual baseline PM emissions data at 20 percent opacity for a source, which are not available. Without these data, it is not possible for us to calculate the precise amount of PM reductions associated with the more stringent opacity limit with a high degree of certainty. We know, however, that lowering opacity from an affected facility generally results in a reduction in PM emissions, provided particle characteristics and size distribution remain similar for that facility.

The existing subpart Y standards for coal handling equipment include only an opacity limit. The proposed amendments would establish a new PM standard of 0.023 g/dscm (0.010 gr/dscf) that would apply to all sources that are mechanically vented. At this time we, only expect end users processing bituminous coal to mechanically vent affected facilities, and, thus, only these facilities would be subject to the proposed new PM limit. Under the existing NSPS, affected facilities that are mechanically vented would already need to install some type of control device to comply with the 20 percent opacity limit. For coal handling facilities that are mechanically vented, EPA believes that a baghouse is the lowest cost option. If we

assume that in the absence of the proposed revisions such affected facilities would have installed baghouses with an emissions limit equivalent to that of the pneumatic coal-cleaning equipment (0.040 g/dscm), the proposed amendments reduce emissions by an additional 40 percent. For the model bituminous power plant used in the costing analysis, this equates to approximately 5 tons of PM reductions annually.

Based on public comment on the proposed amendments, we believe that the majority of new coal handling operations at mines are likely to be fugitive dust sources because they do not vent to a baghouse. In addition, end user locations that process subbituminous coal are moving toward PECS and fogging systems and would also be classified as fugitive dust sources. In both cases, only the opacity standard would apply. Thus, the aggregate costs of the new PM standard would be limited.

Subpart Y has not been revised since it was originally promulgated in 1976 and many States have more stringent control requirements. We believe it is appropriate to consider these existing State requirements when determining what is an appropriate baseline to compare against the proposed amendments. The majority of State permitting authorities that have more stringent control requirements

require controls and work practice standards that maintain opacity well below 20 percent. In addition, any coal preparation plant that is subject to New Source Review (NSR) would also already have control requirements significantly more stringent than the existing NSPS. Therefore, EPA believes that additional costs resulting from the proposed amendments should be negligible for these affected facilities, and recognizes that additional emissions reductions from such sources would be lower as well.

#### **IV. Modification and Reconstruction Provisions**

Existing affected facilities at coal preparation plants that are modified or reconstructed after the date on which standards applicable to the facility are proposed are subject to the standard as finalized. In revising the standards in subpart Y, we have considered whether existing facilities that are reconstructed or modified will be able to achieve the new standards. Where appropriate, we have proposed different standards for new, modified, and reconstructed facilities. We are not proposing any amendments to existing law regarding how a facility would conduct the modification and reconstruction analysis.

#### **V. Summary of Costs, Environmental, Energy, and Economic Impacts**

In setting NSPS, the CAA requires EPA to consider alternative emission control approaches, taking into account the estimated costs and benefits, as well as energy, solid waste, and other effects. We request comment on whether we have identified the appropriate alternatives and whether the proposed standards adequately take into consideration the incremental effects in terms of emission reductions, energy, and other effects of these alternatives. We will consider the available information in developing the final rule.

The costs and environmental, energy, and economic impacts are expressed as incremental differences between the impacts of coal preparation facilities complying with the proposed amendments and the current common permitting authority requirements (i.e., baseline). We have concluded that the supplemental proposal adds additional compliance options and does not increase control costs or recordkeeping and reporting costs above those of the April 2008 proposal. The April 2008 proposal economic impact analysis still holds; the amendments would result in minimal changes in prices and output for the industries affected by the final rule. The price increase for baseload electricity, cement prices, coke prices, and coal prices are insignificant.

## **VI. Request for Comment**

We request comments on all aspects of the proposed amendments to NSPS subpart Y. All significant comments received will be considered in the development and selection of the final rule. We specifically solicit comments on additional amendments that are under consideration. These potential amendments are described below.

### **1. Control Technologies for Controlling Emissions from Thermal Dryers**

No new thermal dryers have been installed at bituminous coal mines in the past decade, and as described previously, we have concluded that a new thermal dryer would likely use gas recirculation instead of a once-through design. Although present coal-fired thermal dryer designs use either stoker or pulverized coal burners, we are requesting comment on the cost and whether it would be technically feasible to use a fluidized bed design to generate the heat for the drying process. We are also requesting comment on whether SNCR could be successfully applied at a new thermal dryer for control of NO<sub>x</sub> emissions. If either of these control technologies is determined to be possible for a new thermal dryer, we will consider basing the combined NO<sub>x</sub> and CO, and SO<sub>2</sub> limits for new thermal

dryers on the use of these controls. Fluidized beds use limestone injection into the bed and can reduce potential SO<sub>2</sub> emissions by over 90 percent; SNCR reduces NO<sub>x</sub> emissions by as much as 50 percent.

We are also requesting comment on whether it would be appropriate to set separate SO<sub>2</sub> emissions standards for new, reconstructed, and modified thermal dryers depending on whether the dryer is a once-through design. As described earlier, once-through dryers typically use scrubbers to control PM emissions and could concurrently control SO<sub>2</sub> emissions by 90 percent or more. If we decide to set separate standards for once-through and recirculation dryers, the once-through SO<sub>2</sub> limit for new, reconstructed, and modified thermal dryers would be changed to 85 ng/J (0.20 lb/MMBtu), or 90 percent reduction in potential emissions and 520 ng/J (1.2 lb/MMBtu). The corresponding definition of a once-through thermal dryer would be a thermal dryer that does not recirculate any flue gas back to the furnace for temperature tempering. We request comment on this definition, as well as the standard discussed above.

In addition, we are requesting comment on establishing separate SO<sub>2</sub> limits based on the heat input capacity of the thermal dryer. For thermal dryers with heat input

capacities of 250 MMBtu/hr or greater the incremental costs of scrubbers for the sole purpose of reducing SO<sub>2</sub> emissions is approximately \$3,500 per ton and is considered cost effective for this source category. If we decide to set separate standards for larger thermal dryers, the large thermal dryer SO<sub>2</sub> limit for new, reconstructed, and modified thermal dryers would be changed to 85 ng/J (0.20 lb/MMBtu), or 90 percent reduction in potential emissions and 520 ng/J (1.2 lb/MMBtu).

## 2. PM Standard

We are considering, and requesting comment on, setting a more stringent PM limit for operations with a high volume of air vented from the affected facility. Larger control devices are more cost effective, and we are specifically requesting comment on setting the PM limit for coal handling and pneumatic coal cleaning equipment operations venting more than 2,000 dscm/min (70,000 dscf/min) at 0.012 g/dscm (0.0054 gr/dscf). Two-thirds of the post 1995 PM performance test results we collected were below this limit, and those that were not had a lb/hr limit and not a concentration limit and the design criteria for those fabric filters is unknown.

## 3. Rear Truck Dumps

The physical size and operation characteristics of rear truck dumps makes operation with low instantaneous opacity difficult to achieve. Several western subbituminous mining operations that began operation in the late 1970s and early 1980s originally used enclosures and fabric filters to control PM emissions from rear truck dumps. It was the only viable technology at the time, but while PM and opacity emissions from the fabric filter stack were relatively low, overall capture and control were not as high. With the advent of larger coal trucks and stilling sheds, the State of Wyoming has allowed for the replacement of enclosures that are vented to a fabric filter with stilling sheds. Stilling sheds provide a fairly high level of PM control. However, the coal is dumped rapidly and there are instantaneous periods of high opacity even when the 6-minute opacity is low. The State of Wyoming determines if the still shed is working properly by averaging the highest instantaneous 15-second opacity of 10 truck dumps. As long as the average instantaneous opacity is less than 20 percent, the stilling shed is determined to be operating properly. We are requesting comment on whether requiring an annual average instantaneous opacity from 10 truck dumps is appropriate as

an alternate to the Method 22 monitoring required for other affected facilities.

#### 4. Opacity Monitoring

A single coal preparation plant can contain multiple similar affected facilities using similar control equipment configurations. To reduce the burden of the rulemaking while still maintaining an equivalent level of environmental protection, we are requesting comment on allowing the permitting authority to approve a single Method 22 observation as sufficient monitoring for up to 4 other similar affected facilities if the owner/operator agrees to site specific equipment inspection and maintenance procedures approved by the permitting authority. If we include this approach in the final rule, the owner/operator would have to observe a different affected facility in the group each week and would still be required to conduct at least monthly observations for each piece of equipment.

#### 5. Thermal Dryer Monitoring

We are requesting comment on several of the monitoring requirements for thermal dryers. First, owner/operators of thermal dryers are required to continuously monitor the temperature of the gas stream at the exit of the thermal dryer. We are requesting comment on the utility of

collecting this information. If we determine this requirement could be eliminated without risk of a significant increase in emissions, we will consider eliminating this requirement.

Second, subpart Y requires owner/operators of wet scrubbers to continuously monitor the pressure drop through the venturi constriction and the water supply pressure. However, there are no requirements specified in the rule to maintain these values within a specified range, nor requirements regarding what averaging period should be used when determining the appropriate value. We are considering, and requesting comment on, adding requirements that pressure drop and water pressure be maintained at a minimum of 90 percent of the values recorded during the most recent performance test, and that an operating day average be used to determine the values.

Next, we are requesting comment on whether it is appropriate to replace the water supply pressure monitoring requirement with a requirement to monitor and maintain the water flow rate as determined from the most recent performance test.

Finally, because we are adding additional standards for thermal dryers we are considering, and requesting comment on, possible monitoring requirements for SO<sub>2</sub>, NO<sub>x</sub>,

and CO. We request comment on requiring CEMS for monitoring SO<sub>2</sub>, NO<sub>x</sub>, and CO emissions. If we do require CEMS, we would use the same numerical emissions rate but the averaging period would be 30 days. We also request comment on alternative continuous monitoring options. In the event we do not require CEMS, we would require other continuous monitoring and require that the relevant parameters are maintained within 10 percent of the value recorded during the performance test on an operating day average. With regard to monitoring for SO<sub>2</sub>, we are also considering, and requesting comment on, whether pH and water flow rate monitoring are appropriate for owner/operators of thermal dryers with a wet scrubber. In addition, for owner/operators of thermal dryers without a wet scrubber, we are considering, and requesting comment on, whether reagent injection flow rate and airflow rate are the appropriate monitoring parameters. For NO<sub>x</sub> and CO, we are considering, and requesting comment on, requiring an O<sub>2</sub> monitor prior to temperature tempering to verify that the appropriate air-to-fuel ratio is maintained.

#### 6. Opacity Standard for Open Storage Piles and Roadways

We are considering, and requesting comment on, both the feasibility of establishing an opacity standard for

open storage piles and roadways and what opacity standard would be appropriate.

#### 7. Work Practice Standards for Haul Roads

As an alternative to our proposal to exempt an owner/operator of roadways that do not leave the property of the affected facility from work practice standards directly, we request comment on whether permitting authorities should be required to include other fugitive dust prevention measures (e.g., wetting of the road surface, sweeping of excess dust, tire washes) in the fugitive dust plan for such roadways.

### **VII. Statutory and Executive Order Reviews**

#### A. Executive Order 12866: Regulatory Planning and Review

Under Executive Order (EO) 12866 (58 FR 51735, October 4, 1993), this action is a "significant regulatory action" because it may raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the EO. Accordingly, EPA submitted this action to the OMB for review under EO 12866, and any changes made in response to OMB recommendations have been documented in the docket for this action.

#### B. Paperwork Reduction Act

The information collection requirements associated with the April 2008 proposed rule have been submitted for

approval to the OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. The Information Collection Request (ICR) document prepared by EPA has been assigned EPA ICR number 1062.10. Because this supplemental proposal does not result in additional recordkeeping and reporting requirements, a new ICR document was not prepared.

The proposed amendments to the existing standards of performance for Coal Preparation Plants would add new monitoring, reporting, and recordkeeping requirements. The information would be used by EPA to ensure that any new affected facilities comply with the emission limits and other requirements. Records and reports would be necessary to enable EPA or States to identify new affected facilities that may not be in compliance with the requirements. Based on reported information, EPA would decide which units and what records or processes should be inspected.

The proposed amendments would not require any notifications or reports beyond those required by the General Provisions. The recordkeeping requirements require only the specific information needed to determine compliance. These recordkeeping and reporting requirements are specifically authorized by CAA section 114 (42 U.S.C. 7414). All information submitted to EPA for which a claim of confidentiality is made will be safeguarded according to

EPA policies in 40 CFR part 2, subpart B, Confidentiality of Business Information.

The annual monitoring, reporting, and recordkeeping burden for this collection averaged over the first 3 years of this ICR is estimated to total 32,664 labor hours per year at an average annual cost of \$2,957,707. This estimate includes performance testing, excess emission reports, notifications, and recordkeeping. There are no capital/start-up costs or operational and maintenance costs associated with the monitoring requirements over the 3-year period of the ICR. Burden is defined at 5 CFR 1320.3(b).

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a current valid OMB control number. The OMB control numbers for EPA's regulations in 40 CFR are listed in 40 CFR part 9.

To comment on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, EPA has established a public docket for this rule, which includes this ICR, under Docket ID number EPA-HQ-OAR-2008-0260. Submit any comments related to the ICR to EPA and OMB. See **ADDRESSES** section at the beginning of this action for where to submit comments to EPA. Send comments to OMB at the

Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17<sup>th</sup> Street, NW, Washington, DC 20503, Attention: Desk Office for EPA. Because OMB is required to make a decision concerning the ICR between 30 and 60 days after [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER], a comment to OMB is best assured of having its full effect if OMB receives it by [INSERT DATE 30 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER]. The final rule will respond to any OMB or public comments on the information collection requirements contained in this proposal.

C. Regulatory Flexibility Act

The Regulatory Flexibility Act generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of the proposed amendments on small entities, small entity is defined as: (1) a small business as defined by the Small Business Administration's regulations at 13 CFR 121.201; (2) a small

governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of this proposed rule on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. This proposed rule will not impose any requirements on small entities.

We continue to be interested in the potential impacts of the proposed rule on small entities and welcome comments on issues related to such impacts.

D. Unfunded Mandates Reform Act

This rule does not contain a Federal mandate that may result in expenditures of \$100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any one year. The total annual control and monitoring costs of the proposed amendments, compared to a baseline of no control, at year five is \$2 million. Thus, this rule is not subject to the requirements of sections 202 or 205 of UMRA.

This rule is also not subject to the requirements of section 203 of UMRA because it contains no regulatory requirements that might significantly or uniquely affect small governments.

E. Executive Order 13132: Federalism

EO 13132, entitled "Federalism" (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications." "Policies that have federalism implications" is defined in the EO to include regulations that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government."

These proposed amendments do not have federalism implications. They will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in EO 13132. These proposed amendments will not impose substantial direct compliance costs on State or local governments; they will not preempt State law. Thus, EO 13132 does not apply to these proposed

amendments. In the spirit of EO 13132, and consistent with EPA policy to promote communications between EPA and State and local governments, EPA specifically solicits comment on these proposed amendments from State and local officials.

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

This action does not have tribal implications, as specified in Executive Order 13175 (65 FR 67249, November 9, 2000). We are not aware of any coal preparation facilities owned by an Indian tribe. Thus, Executive Order 13175 does not apply to this action.

EPA specifically solicits additional comment on this proposed action from tribal officials.

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

EPA interprets EO 13045 (62 FR 19885, April 23, 1997) as applying to those regulatory actions that concern health or safety risks, such that the analysis required under section 5-501 of the EO has the potential to influence the regulation. This proposed action is not subject to EO 13045 because it is based solely on technology performance.

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

This proposed action is not a "significant energy action" as defined in EO 13211 (66 FR 28355, May 22, 2001) because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. Further, we have concluded that this proposed action is not likely to have any adverse energy effects.

I. National Technology Transfer Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 ("NTTAA"), Public Law No. 104-113 (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards (VCS) in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. VCS are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable VCS.

This proposed rulemaking involves technical standards. EPA proposes to use ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses," for its manual methods of measuring the oxygen, carbon dioxide, sulfur dioxide or nitrogen dioxide content of the exhaust gas. These parts of ASME PTC 19.10-1981 are acceptable alternatives to EPA Method 3B of

appendix A-2 and EPA Methods 6, 6A, and 7 of appendix A-4 of 40 CFR part 60. This standard is available from the American Society of Mechanical Engineers (ASME), Three Park Avenue, New York, NY 10016-5990.

EPA also proposes to use EPA Methods 1, 1A, 2, 2A, 2C, 2D, 2F, 2G, 3, 3A, 3B, 4, 5, 5B, 5D, 6, 6A, 6C, 7, 7E, 9, 10, 17, and 22 (40 CFR part 60, appendices A-1 through A-7). While the Agency has identified 20 VCS as being potentially applicable, we do not propose to use these standards in this proposed rulemaking. The use of these VCS would be impractical because they do not meet the objectives of the standards cited in this proposed rule. The search and review results are in the docket for this rule.

EPA welcomes comments on this aspect of the proposed rulemaking and, specifically, invites the public to identify potentially-applicable VCS and to explain why such standards should be used in this regulation.

J. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations.

EO 12898 (59 FR 7629, February 16, 1994) establishes Federal executive policy on environmental justice. Its main provision directs Federal agencies, to the greatest

extent practical and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations in the United States.

EPA has determined that this proposed rule will not have disproportionately high adverse human health or environmental effects on minority or low-income populations because it increases the level of environmental protection for all affected populations without having any disproportionately high adverse human health or environmental effects on any populations, including any minority or low-income population. The proposed amendments would assure that all new coal preparation plants install appropriate controls to limit health impacts to nearby populations.

Standards of Performance for Coal Preparation and  
Processing Plants

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**List of Subjects in 40 CFR Part 60**

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

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Dated:

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Lisa P. Jackson,  
Administrator.

For the reasons stated in the preamble, title 40, chapter I, part 60, of the Code of the Federal Regulations is proposed to be amended as follows:

**PART 60--[AMENDED]**

1. The authority citation for part 60 continues to read as follows:

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

**Subpart A--[Amended]**

2. Section 60.17 is amended:

a. By revising paragraph (a) (13);

b. By removing paragraph (a) (14);

c. By redesignating paragraphs (a) (15) through (a) (93) as paragraphs (a) (14) through (a) (92); and

d. By revising paragraph (h) (4) to read as follows.

§60.17 Incorporations by Reference.

\* \* \* \* \*

(a) \* \* \*

(13) ASTM D388-77, 90, 91, 95, 98a, 99 (Reapproved 2004)<sup>e1</sup>, Standard Specification for Classification of Coals by Rank, IBR approved for §§60.24(h) (8), 60.41 of subpart D of this part, 60.45(f) (4) (i), 60.45(f) (4) (ii), 60.45(f) (4) (vi), 60.41Da of subpart Da of this part, 60.41b of subpart Db of this part, 60.41c of subpart Dc of this part, 60.251 of subpart Y of this part, and 60.4102.

\* \* \* \* \*

(h) \* \* \*

(4) ANSI/ASME PTC 19.10-1981, Flue and Exhaust Gas Analyses [part 10, Instruments and Apparatus], IBR approved for §60.106(e) (2) of subpart J, §§60.104a(d) (3), (d) (5), (d) (6), (h) (3), (h) (4), (h) (5), (i) (3), (i) (4), (i) (5), (j) (3), and (j) (4), 60.105a(d) (4), (f) (2), (f) (4), (g) (2), and (g) (4), 60.106a(a) (1) (iii), (a) (2) (iii), (a) (2) (v), (a) (2) (viii), (a) (3) (ii), and (a) (3) (v), and 60.107a(a) (1) (ii), (a) (1) (iv), (a) (2) (ii), (c) (2), (c) (4), and (d) (2) of subpart Ja, §60.257(b) (3) of subpart Y, tables 1 and 3 of subpart EEEE, tables 2 and 4 of subpart FFFF, table 2 of subpart JJJJ, and §§60.4415(a) (2) and 60.4415(a) (3) of subpart KKKK of this part.

\* \* \* \* \*

**Subpart Y--[Amended]**

3. Part 60 is amended by revising subpart Y to read as follows:

Subpart Y-Standards of Performance for Coal Preparation and Processing Plants

Sec.

60.250 Applicability and designation of affected facility.

60.251 Definitions.

60.252 Standards for thermal dryers.

60.253 Standards for pneumatic coal-cleaning equipment.

60.254 Standards for coal processing and conveying equipment, coal storage system, and coal transfer system operations.

60.255 Performance tests and other compliance requirements.

60.256 Continuous monitoring requirements.

60.257 Test methods and procedures.

60.258 Reporting and recordkeeping.

§60.250 Applicability and designation of affected facility.

(a) The provisions of this subpart are applicable to any of the following affected facilities in coal preparation and processing plants which process more than 181 megagrams (Mg) (200 tons) per day of coal: thermal dryers, pneumatic coal-cleaning equipment (air tables), coal processing and conveying equipment (including breakers and crushers), coal storage systems, and transfer and loading systems.

(b) Any affected facility under paragraph (a) of this section that commences construction, reconstruction, or modification after October 24, 1974, is subject to the requirements of this subpart.

§60.251 Definitions.

As used in this subpart, all terms not defined herein have the meaning given them in the Clean Air Act (Act) and in subpart A of this part.

Anthracite means coal that is classified as anthracite according to the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see §60.17).

Bag leak detection system means a system that is capable of continuously monitoring relative particulate matter (dust loadings) in the exhaust of a fabric filter to detect bag leaks and other upset conditions. A bag leak detection system includes, but is not limited to, an instrument that operates on triboelectric, light scattering, light transmittance, or other effect to continuously monitor relative particulate matter loadings.

Bituminous coal means solid fossil fuel classified as bituminous coal by ASTM D388 (incorporated by reference-see §60.17).

Coal for units constructed, reconstructed, or modified on or before [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER] means all solid fossil fuels classified as anthracite, bituminous, subbituminous, or lignite by ASTM D388 (incorporated by reference-see §60.17). For units constructed, reconstructed, or modified after [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER], coal means all

solid fossil fuels classified as anthracite, bituminous, subbituminous, or lignite by ASTM D388 (incorporated by reference—see §60.17), coal refuse, and petroleum coke.

Coal preparation and processing plant means any facility (excluding underground mining operations) which prepares coal by one or more of the following processes: breaking, crushing, screening, wet or dry cleaning, and thermal drying.

Coal processing and conveying equipment means any machinery used to reduce the size of coal or to separate coal from refuse, and the equipment used to convey coal to or remove coal and refuse from the machinery. This includes, but is not limited to, breakers, crushers, screens, and conveying systems.

Coal refuse means debris product of coal mining or coal preparation and processing operations (e.g. culm, gob, boney, slate dumps, etc.) containing coal, matrix material, clay, and other organic and inorganic material.

Coal storage system for units constructed, reconstructed, or modified on or before [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER] means any facility used to store coal except for open storage piles. For units constructed, reconstructed, or modified after [INSERT

DATE OF PUBLICATION IN THE FEDERAL REGISTER], coal storage system means any facility used to store coal.

Design controlled potential PM emissions rate means the theoretical particulate matter (PM) emissions (Mg) that would result from the operation of a control device at its design emissions rate (grams per dry standard cubic meter (g/dscm)), multiplied by the maximum design flow rate (dry standard cubic meter per minute (dscm/min)), multiplied by 60 (minutes per hour (min/hr)), multiplied by 8,760 (hours per year (hr/yr)), divided by 1,000,000 (megagrams per gram (Mg/g)).

Indirect thermal dryer means a thermal dryer that reduces the moisture content of coal through indirect heating of the coal through contact with a heat transfer medium. If the source of heat (the source of combustion or furnace) is subject to either subpart Da, Db, or Dc of this part then the furnace and the associated emissions are not part of the affected facility. However, if the source of heat is not subject to either subpart Da, Db, or Dc of this part, then the furnace and the associated emissions are part of the affected facility.

Lignite means coal that is classified as lignite A or B according to the American Society of Testing and

Materials in ASTM D388 (incorporated by reference, see §60.17).

Mechanical vent means a vent using a powered mechanical drive (machine) to induce air flow.

Operating day means a 24-hour period between 12 midnight and the following midnight during which and coal is prepared or processed at any time by the affected facility. It is not necessary that coal be prepared or processed the entire 24-hour period.

Petroleum Coke also known as petcoke means a carbonization product of high-boiling hydrocarbon fractions obtained in petroleum processing (heavy residues).

Petroleum coke is typically derived from oil refinery coker units or other cracking processes

Pneumatic coal-cleaning equipment for units constructed, reconstructed, or modified on or before [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER] means any facility which classifies bituminous coal by size or separates bituminous coal from refuse by application of air stream(s). For units constructed, reconstructed, or modified after [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER], pneumatic coal-cleaning equipment means any facility which classifies coal by size or separates coal from refuse by application of air stream(s).

Potential combustion concentration means the theoretical emissions (nanograms per joule (ng/J) or pounds per million British thermal units (lb/MMBtu) heat input) that would result from combustion of a fuel in an uncleaned state without emission control systems, as determined using Method 19 of appendix A-7 of this part.

Subbituminous coal means coal that is classified as subbituminous A, B, or C according to the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see §60.17).

Thermal dryer for units constructed, reconstructed, or modified on or before [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER] means any facility in which the moisture content of bituminous coal is reduced by contact with a heated gas stream which is exhausted to the atmosphere. For units constructed, reconstructed, or modified after [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER], thermal dryer means any facility in which the moisture content of coal is reduced by either contact with a heated gas stream which is exhausted to the atmosphere or through indirect heating of the coal through contact with a heated heat transfer medium.

Transfer and loading system means any facility used to transfer and load coal for shipment.

§60.252 Standards for thermal dryers.

(a) On and after the date on which the performance test is conducted or required to be completed under §60.8, whichever date comes first, an owner or operator of a thermal dryer constructed, reconstructed, or modified on or before April 28, 2008, subject to the provisions of this subpart must meet the requirements in paragraphs (a)(1) and (a)(2) of this section.

(1) The owner or operator shall not cause to be discharged into the atmosphere from the thermal dryer any gases which contain PM in excess of 0.070 g/dscm (0.031 grains per dry standard cubic feet (gr/dscf)); and

(2) The owner or operator shall not cause to be discharged into the atmosphere from the thermal dryer any gases which exhibit 20 percent opacity or greater.

(b) On and after the date on which the performance test is conducted or required to be completed under §60.8, whichever date comes first, an owner or operator of a thermal dryer constructed, reconstructed, or modified after April 28, 2008, subject to the provisions of this subpart must meet the applicable standards for PM, sulfur dioxide (SO<sub>2</sub>), and combined nitrogen oxides (NO<sub>x</sub>) and carbon monoxide (CO) as specified in paragraphs (b)(1) through (3) of this section.

(1) The owner or operator must meet the requirements for PM emissions in paragraphs (b) (1) (i) through (iii) of this section, as applicable to the affected facility.

(i) For each thermal dryer constructed after April 28, 2008, the owner or operator must meet the requirements of (b) (1) (i) (A) and (b) (1) (i) (B).

(A) The owner or operator must not cause to be discharged into the atmosphere from the thermal dryer any gases that contain PM in excess of 0.023 g/dscm (0.010 grains per dry standard cubic feet (gr/dscf)); and

(B) The owner or operator must not cause to be discharged into the atmosphere from the thermal dryer any gases that exhibit 10 percent opacity or greater.

(ii) For each thermal dryer reconstructed after April 28, 2008, the owner or operator must meet the requirements of paragraph (b) (1) (ii) (A) and (b) (1) (ii) (B) of this section.

(A) The owner or operator must not cause to be discharged into the atmosphere from the affected facility any gases that contain PM in excess of 0.045 g/dscm (0.020 gr/dscf); and

(B) The owner or operator must not cause to be discharged into the atmosphere from the affected facility any gases that exhibit 20 percent opacity or greater.

(iii) For each thermal dryer modified after April 28, 2008, the owner or operator must meet the requirements of paragraphs (b) (1) (iii) (A) and (b) (1) (iii) (B) of this section.

(A) The owner or operator must not cause to be discharged to the atmosphere from the affected facility any gases which contain PM in excess of 0.070 g/dscm (0.031 gr/dscf); and

(B) The owner or operator must not cause to be discharged into the atmosphere from the affected facility any gases which exhibit 20 percent opacity or greater.

(2) For each thermal dryer constructed, reconstructed, or modified after [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER], the owner or operator must meet the requirements for SO<sub>2</sub> emissions in either paragraph (b) (2) (i) or (ii) of this section, except for indirect thermal dryers where the source of the heat is subject to either subpart Da, Db, or Dc of this part.

(i) The owner or operator must not cause to be discharged into the atmosphere from the affected facility any gases that contain SO<sub>2</sub> in excess of 85 ng/J (0.20 lb/MMBtu) heat input; or

(ii) The owner or operator must not cause to be discharged into the atmosphere from the affected facility

any gases that either contain SO<sub>2</sub> in excess of 520 ng/J (1.20 lb/MMBtu) heat input or exceed 50 percent of the potential combustion concentration (i.e., achieve at least a 50 percent reduction of the potential combustion concentration and do not exceed a maximum emissions rate of 1.2 lb/MMBtu (520 ng/J)).

(3) The owner or operator must meet the requirements for combined NO<sub>x</sub> and CO emissions in paragraph (b) (3) (i) or (ii) of this section, as applicable to the affected facility, except for indirect thermal dryers where the source of the heat is subject to either subpart Da, Db, or Dc of this part.

(i) For each thermal dryer constructed after [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER], the owner or operator must not cause to be discharged into the atmosphere from the affected facility any gases which contain a combined concentration of NO<sub>x</sub> and CO in excess of 280 ng/J (0.65 lb/MMBtu) heat input.

(ii) For each thermal dryer reconstructed or modified after [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER], the owner or operator must not cause to be discharged into the atmosphere from the affected facility any gases which contain combined concentration of NO<sub>x</sub> and CO in excess of 430 ng/J (1.0 lb/MMBtu) heat input.

§60.253 Standards for pneumatic coal-cleaning equipment.

(a) On and after the date on which the performance test is conducted or required to be completed under §60.8, whichever date comes first, an owner or operator of pneumatic coal-cleaning equipment constructed, reconstructed, or modified on or before April 28, 2008, must meet the requirements of paragraphs (a)(1) and (a)(2) of this section.

(1) The owner or operator must not cause to be discharged into the atmosphere from the pneumatic coal-cleaning equipment any gases that contain PM in excess of 0.040 g/dscm (0.017 gr/dscf); and

(2) The owner or operator must not cause to be discharged into the atmosphere from the pneumatic coal-cleaning equipment any gases that exhibit 10 percent opacity or greater.

(b) On and after the date on which the performance test is conducted or required to be completed under §60.8, whichever date comes first, an owner or operator of pneumatic coal-cleaning equipment constructed, reconstructed, or modified after April 28, 2008, must meet the requirements in paragraphs (b)(1) and (b)(2) of this section.

(1) The owner of operator must not cause to be discharged into the atmosphere from the pneumatic coal-cleaning equipment any gases that contain PM in excess of 0.023 g/dscm (0.010 gr/dscf); and

(2) The owner or operator must not cause to be discharged into the atmosphere from the pneumatic coal-cleaning equipment any gases that exhibit greater than 5 percent opacity.

§60.254 Standards for coal processing and conveying equipment, coal storage system, and coal transfer system operations.

(a) On and after the date on which the performance test is conducted or required to be completed under §60.8, whichever date comes first, an owner or operator shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, reconstructed, or modified on or before April 28, 2008, gases which exhibit 20 percent opacity or greater.

(b) On and after the date on which the performance test is conducted or required to be completed under §60.8, whichever date comes first, an owner or operator of any coal processing and conveying equipment, coal storage

system, or coal transfer and loading system processing coal constructed, reconstructed, or modified after April 28, 2008, must meet the requirements in paragraphs (b) (1) through (3) of this section, as applicable to the affected facility.

(1) The owner or operator must not cause to be discharged into the atmosphere from the affected facility any gases which exhibit greater than 5 percent opacity.

(2) The owner or operator must not cause to be discharged into the atmosphere from any mechanical vent at the facility gases which contain particulate matter in excess of 0.023 g/dscm (0.010 gr/dscf).

(3) The owner or operator must control fugitive coal dust emissions from fugitive sources at the facility by operating according to a written fugitive emissions control plan that has been approved by the permitting authority. The fugitive emissions control plan must address the fugitive emissions sources specified in paragraph (b) (3) (i) of this section, as applicable to the affected facility, and include the information specified in paragraph (b) (3) (ii) of this section.

(i) The fugitive emissions control plan must address each of the fugitive emissions sources listed in paragraphs

(b) (3) (i) (A) through (C) of this section that are located at the facility.

(A) Open storage piles used for storage of coal.

(B) Roadways associated with and within the same contiguous property as the coal preparation and processing plant.

(C) Other site-specific sources of fugitive emissions that the Administrator or permitting authority determines needs to be included in your fugitive emissions control plan.

(ii) The fugitive emissions control plan must describe the control measures the owner or operator shall use to minimize fugitive emissions from each source addressed in the plan, and explain how the measures are applicable and appropriate for the site conditions. For open storage piles, the fugitive emissions plan must specify how one or more of the following control measures will be used to minimize fugitive coal dust: locating the source inside a partial enclosure, installing and operating a water spray or fogging system, applying appropriate chemical dust suppression agents on the source, use of a wind barrier, or use of a vegetative cover. For roadways, the fugitive emissions plan must specify how one or more of the following control measures will be used to minimize

fugitive dust: paving, sweeping excess coal dust, wetting of the road surface, or tire washes. The permitting authority may approve a fugitive emissions plan that includes control technologies other than those specified above only if the owner or operator has demonstrated to the Administrator that the alternate control technology will provide equivalent overall environmental protection or if it has determined to the Administrator that it is either economically or technically infeasible for the affected facility to use the control options specifically identified in this paragraph.

(iii) If the owner or operator of the affected facility is part of a source which is subject to title V permitting, then the requirement for the owner or operator to operate according to a written fugitive emissions control plan which has been approved by the permitting authority must be incorporated into the title V operating permit for the source. Additionally, a copy of the fugitive emissions control plan must be submitted to the permitting authority 90 days prior to the compliance date for the affected facility. Any revisions to the fugitive emissions control plan are not effective until approved by the permitting authority. All of the requirements in this

paragraph are to be specified in any title V permit which covers the affected facility.

§60.255 Performance tests and other compliance requirements.

(a) An owner or operator of each affected facility that commenced construction, reconstruction, or modification on or before April 28, 2008, must conduct all performance tests required by §60.8 to demonstrate compliance with the applicable emission standards using the methods identified in §60.257.

(b) An owner or operator of each affected facility that commenced construction, reconstruction, or modification after April 28, 2008, must conduct performance tests according to the requirements of §60.8 and the methods identified in §60.257 to demonstrate compliance with the applicable emissions standards in this subpart as specified in paragraphs (b)(1) and (2) of this section.

(1) For each affected facility subject to a PM, SO<sub>2</sub>, or combined NO<sub>x</sub> and CO emissions standard, an initial performance test must be performed except as provided for in paragraph (d) of this section. Thereafter, a new performance test must be conducted according the requirements in paragraphs (b)(1)(i) and (ii) of this section, as applicable.

(i) If the results of the most recent performance test demonstrate that emissions from the affected facility are greater than 50 percent of the applicable emissions standard, a new performance test must be conducted within 12 calendar months of the date that the previous performance test was required to be completed.

(ii) If the results of the most recent performance test demonstrate that emissions from the affected facility are 50 percent or less of the applicable emissions standard, a new performance test must be conducted within 24 calendar months of the date that the previous performance test was required to be completed.

(iii) An owner or operator of an affected facility that has not operated for the 60 calendar days prior to the due date of a performance test is not required to perform the subsequent performance test until 30 calendar days after the next operating day.

(2) For each affected facility subject to an opacity standard, an initial performance test must be performed. Thereafter, a new performance test must be conducted according the requirements in paragraphs (b)(2)(i) through (iv) of this section, as applicable, except as provided for in paragraphs (e) and (f) of this section.

(i) If the maximum 15-second opacity reading in the most recent performance test is greater than 5 percent, a new performance test must be conducted within 7 operating days of the date that the previous performance test was required to be completed.

(ii) If the maximum 15-second opacity reading in the most recent performance test is 5 percent, a new performance test must be conducted within 30 operating days of the date that the previous performance test was required to be completed.

(iii) If no visible emissions are observed in the most recent performance test, a new performance test must be conducted within 120 operating days of the date of the previous performance test was required to be completed.

(iv) An owner or operator of affected facilities continuously monitoring scrubber parameters as specified in §60.256 are exempt from the requirements in paragraphs (b)(2)(i) through (iii) if opacity performance tests are conducted concurrently (or within a 60-minute period) with PM performance tests.

(c) An owner or operator of an affected facility subject to a PM emission standard (other than a thermal dryer) that uses a control device with a design control potential PM emissions rate of 1.0 Mg (1.1 tons) per year

or less is exempted from the requirements of paragraphs (b) (1) (i) and (ii) of this section provided that the owner or operator meets all of the following conditions specified in paragraphs (c) (1) through (4) of this section. This exemption does not apply to thermal dryers.

(1) The design emissions limit is less than or equal to the applicable PM emissions standard and the results of the most recent performance test were less than or equal to the applicable limit,

(2) The control device manufacturer's recommended maintenance procedures are followed, and

(3) The monitoring requirements in paragraphs (e) or (f) of this section are followed.

(d) An owner or operator of a group of up to five of the same type of affected facilities that are subject to PM emissions standards and use identical control devices each with a design potential PM emissions rate of 10 Mg (11 tons) per year or less, the permitting authority may allow the owner or operator to use a single PM performance test for one of the affected control devices to demonstrate that the group of affected facilities is in compliance with the applicable emissions standards provided that the owner or operator meets all of the following conditions specified in paragraphs (d) (1) through (4) of this section.

(1) The design emissions limit for each individual affected facility is less than or equal to the applicable PM emissions limit and the performance test for each individual affected facility is 90 percent or less of the applicable PM standard;

(2) The manufacturer's recommended maintenance procedures are followed for each control device;

(3) The monitoring requirements in paragraph (e) or (f) of this section are used for each affected facility; and

(4) A performance test is conducted on each affected facility at least once every 5 calendar years.

(e) As an alternative to meeting the requirements in paragraph (b) (2) (i) through (iii) of this section, an owner or operator of an affected facility for which the maximum 6-minute opacity reading from the most recent Method 9 of appendix A-4 of this part performance test is less than 3 percent may elect to comply with the requirements in paragraph (e) (1) or (2) of this section.

(1) Monitor visible emissions from each affected facility according to the requirements in either paragraph (e) (1) (i) or (ii) of this section.

(i) Conduct daily observations each operating day for a period of at least 10 minutes (during normal operation)

when the coal preparation and processing plant is in operation using EPA Method 22 of appendix A-7 of this part and demonstrate that the sum of the occurrences of any visible emissions is not in excess of 5 percent of the observation period (i.e., 30 seconds per 10-minute period). If the sum of the occurrence of any visible emissions is greater than 30 seconds during the initial 10-minute observation, immediately conduct a 30-minute observation. If the sum of the occurrence of visible emissions is greater than 5 percent of the observation period (i.e., 90 seconds per 30-minute period) the owner or operator shall either document and adjust the operation of the facility and demonstrate within 24 hours that the sum of the occurrence of visible emissions is equal to or less than 5 percent during a 30-minute observation (i.e., 90 seconds) or conduct a new Method 9 of appendix A-4 of this part performance test within 30 calendar days unless a waiver is granted by the permitting authority.

(ii) If no visible emissions are observed for 7 consecutive operating days, observations can be reduced to once every 7 operating days. If any visible emissions are observed, daily observations shall be resumed.

(2) Prepare a written site-specific monitoring plan for a digital opacity compliance system for approval by the

Administrator. The plan shall require observations of at least one digital image every 15 seconds for 10-minute periods (during normal operation) every operating day. An approvable monitoring plan must include a demonstration that the occurrences of visible emissions are not in excess of 5 percent of the observation period. For reference purposes in preparing the monitoring plan, see OAQPS "Determination of Visible Emission Opacity from Stationary Sources Using Computer-Based Photographic Analysis Systems." This document is available from the U.S. Environmental Protection Agency (U.S. EPA); Office of Air Quality and Planning Standards; Sector Policies and Programs Division; Measurement Group (D243-02), Research Triangle Park, NC 27711. This document is also available on the Technology Transfer Network (TTN) under Emission Measurement Center Preliminary Methods. The monitoring plan approved by the Administrator shall be implemented by the owner or operator.

(f) As an alternative to meeting the requirements in paragraph (b)(2) of this section, an owner or operator of an affected facility subject to a visible emissions standard under this subpart may install, operate, and maintain a continuous opacity monitoring system (COMS). Each COMS used to comply with provisions of this subpart

must be installed, calibrated, maintained, and continuously operated according to the requirements in paragraphs (f) (1) and (2) of this section.

(1) The COMS must meet Performance Specification 1 in 40 CFR part 60, appendix B.

(2) The COMS must comply with the quality assurance requirements in paragraphs (f) (2) (i) through (v) of this section.

(i) The owner or operator must automatically (intrinsic to the opacity monitor) check the zero and upscale (span) calibration drifts at least once daily. For particular COMS, the acceptable range of zero and upscale calibration materials is as defined in the applicable version of Performance Specification 1 in 40 CFR part 60, appendix B.

(ii) The owner or operator must adjust the zero and span whenever the 24-hour zero drift or 24-hour span drift exceeds 4 percent opacity. The COMS must allow for the amount of excess zero and span drift measured at the 24-hour interval checks to be recorded and quantified. The optical surfaces exposed to the effluent gases must be cleaned prior to performing the zero and span drift adjustments, except for systems using automatic zero adjustments. For systems using automatic zero adjustments,

the optical surfaces must be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity.

(iii) The owner or operator must apply a method for producing a simulated zero opacity condition and an upscale (span) opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light beam. All procedures applied must provide a system check of the analyzer internal optical surfaces and all electronic circuitry including the lamp and photodetector assembly.

(iv) Except during periods of system breakdowns, repairs, calibration checks, and zero and span adjustments, the COMS must be in continuous operation and must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(v) The owner or operator must reduce all data from the COMS to 6-minute averages. Six-minute opacity averages must be calculated from 36 or more data points equally spaced over each 6-minute period. Data recorded during periods of system breakdowns, repairs, calibration checks, and zero and span adjustments must not be included in the data averages. An arithmetic or integrated average of all data may be used.

§60.256 Continuous monitoring requirements.

(a) The owner or operator of each affected facility constructed, reconstructed, or modified on or before April 28, 2008, must meet the monitoring requirements specified in paragraphs (a)(1) and (2) of this section, as applicable to the affected facility.

(1) The owner or operator of any thermal dryer shall install, calibrate, maintain, and continuously operate monitoring devices as follows:

(i) A monitoring device for the measurement of the temperature of the gas stream at the exit of the thermal dryer on a continuous basis. The monitoring device is to be certified by the manufacturer to be accurate within  $\pm 1.7^{\circ}\text{C}$  ( $\pm 3^{\circ}\text{F}$ ).

(ii) For affected facilities that use wet scrubber emission control equipment:

(A) A monitoring device for the continuous measurement of the pressure loss through the venturi constriction of the control equipment. The monitoring device is to be certified by the manufacturer to be accurate within  $\pm 1$  inch water gauge.

(B) A monitoring device for the continuous measurement of the water supply pressure to the control equipment. The monitoring device is to be certified by the

manufacturer to be accurate within  $\pm 5$  percent of design water supply pressure. The pressure sensor or tap must be located close to the water discharge point. The Administrator shall have discretion to grant requests for approval of alternative monitoring locations.

(2) All monitoring devices under paragraph (a) of this section are to be recalibrated annually in accordance with procedures under §60.13(b).

(b) The owner or operator of each affected facility constructed, reconstructed, or modified after April 28, 2008, that has one or more mechanical vents must install, calibrate, maintain, and continuously operate the monitoring devices specified in paragraphs (b)(1) and (2) of this section, as applicable to the mechanical vent and any control device installed on the vent.

(1) For mechanical vents with fabric filters (baghouses) with the design controlled potential PM emissions rate of 25 Mg (28 tons) per year or more, a bag leak detection system according to the requirements in paragraph (c) of this section.

(2) For mechanical vents with wet scrubbers, monitoring devices according to the requirements in paragraphs (b)(2)(i) and (ii) of this section.

(i) A monitoring device for the continuous measurement of the pressure loss through the venturi constriction of the control equipment. The monitoring device is to be certified by the manufacturer to be accurate within  $\pm 1$  inch water gauge.

(ii) A monitoring device for the continuous measurement of the water supply pressure to the control equipment. The monitoring device is to be certified by the manufacturer to be accurate within  $\pm 5$  percent of design water supply pressure. The pressure sensor or tap must be located close to the water discharge point.

(c) Each bag leak detection system used to comply with provisions of this subpart must be installed, calibrated, maintained, and continuously operated according to the requirements in paragraphs (c)(1) through (3) of this section.

(1) The bag leak detection system must meet the specifications and requirements in paragraphs (c)(1)(i) through (viii) of this section.

(i) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 1 milligram per dry standard cubic meter (mg/dscm) (0.00044 grains per actual cubic foot (gr/acf)) or less.

(ii) The bag leak detection system sensor must provide output of relative PM loadings. The owner or operator shall continuously record the output from the bag leak detection system using electronic or other means (e.g., using a strip chart recorder or a data logger).

(iii) The bag leak detection system must be equipped with an alarm system that will sound when the system detects an increase in relative particulate loading over the alarm set point established according to paragraph (c)(1)(iv) of this section, and the alarm must be located such that it can be heard by the appropriate plant personnel.

(iv) In the initial adjustment of the bag leak detection system, the owner or operator must establish, at a minimum, the baseline output by adjusting the sensitivity (range) and the averaging period of the device, the alarm set points, and the alarm delay time.

(v) Following initial adjustment, the owner or operator must not adjust the averaging period, alarm set point, or alarm delay time without approval from the Administrator or permitting authority except as provided in paragraph (c)(2)(vi) of this section.

(vi) Once per quarter, the owner or operator may adjust the sensitivity of the bag leak detection system to

account for seasonal effects, including temperature and humidity, according to the procedures identified in the site-specific monitoring plan required by paragraph (c) (2) of this section.

(vii) The owner or operator must install the bag leak detection sensor downstream of the fabric filter.

(viii) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(2) The owner or operator must develop and submit to the permitting authority for approval a site-specific monitoring plan for each bag leak detection system. This plan must be submitted to the permitting authority 90 days prior to the compliance date for the affected facility. The owner or operator must operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. Each monitoring plan must describe the items in paragraphs (c) (2) (i) through (vi) of this section.

(i) Installation of the bag leak detection system;

(ii) Initial and periodic adjustment of the bag leak detection system, including how the alarm set-point will be established;

(iii) Operation of the bag leak detection system, including quality assurance procedures;

(iv) How the bag leak detection system will be maintained, including a routine maintenance schedule and spare parts inventory list;

(v) How the bag leak detection system output will be recorded and stored; and

(vi) Corrective action procedures as specified in paragraph (c) (3) of this section. In approving the site-specific monitoring plan, the Administrator or permitting authority may allow the owner and operator more than 3 hours to alleviate a specific condition that causes an alarm if the owner or operator identifies in the monitoring plan this specific condition as one that could lead to an alarm, adequately explains why it is not feasible to alleviate this condition within 3 hours of the time the alarm occurs, and demonstrates that the requested time will ensure alleviation of this condition as expeditiously as practicable.

(3) For each bag leak detection system, the owner or operator must initiate procedures to determine the cause of every alarm within 1 hour of the alarm. Except as provided in paragraph (c) (2) (vi) of this section, the owner or operator must alleviate the cause of the alarm within 3

hours of the alarm by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to the following:

(i) Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM emissions;

(ii) Sealing off defective bags or filter media;

(iii) Replacing defective bags or filter media or otherwise repairing the control device;

(iv) Sealing off a defective fabric filter compartment;

(v) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system; or

(vi) Shutting down the process producing the PM emissions.

§60.257 Test methods and procedures.

(a) The owner or operator must determine compliance with the applicable opacity standards as specified in paragraphs (a) (1) through (4) of this section.

(1) Method 9 of appendix A-4 of this part and the procedures in §60.11 must be used to determine opacity.

(2) To determine opacity for fugitive emissions sources, the additional requirements specified in paragraphs (a) (2) (i) through (iii) must be used.

(i) The minimum distance between the observer and the emission source shall be 5.0 meters (16 feet), and the sun shall be oriented in the 140-degree sector of the back.

(ii) The observer shall select a position that minimizes interference from other fugitive emissions sources and make observations such that the line of vision is approximately perpendicular to the plume and wind direction.

(iii) The observer shall make opacity observations at the point of greatest opacity in that portion of the plume where condensed water vapor is not present. Water vapor is not considered a visible emission.

(3) If during the initial 60 minutes of the observation of a Method 9 of appendix A-4 of this part performance test all of the individual 15-second observations are less than or equal to 20 percent and all of the resulting 6-minute averages are less than or equal to 3 percent or half the applicable limit, whichever is greater, then the observation period may be reduced from 3 hours to 60 minutes.

(4) A visible emissions observer may conduct visible emission observations for up to three fugitive, stack, or vent emission points within a 15-second interval if the

following conditions specified in paragraphs (a) (4) (i) through (iii) of this section are met.

(i) No more than three emissions points may be read concurrently.

(ii) All three emissions points must be within a 70 degree viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three points.

(iii) If an opacity reading for any one of the three emissions points is within 5 percent opacity from the applicable standard (excluding readings of zero opacity), then the observer must stop taking readings for the other two points and continue reading just that single point.

(b) The owner or operator must conduct all performance tests required by §60.8 to demonstrate compliance with the applicable emissions standards specified in §60.252 according to the requirements in §60.8 using the applicable test methods and procedures in paragraphs (b) (1) through (8) of this section.

(1) Method 1 or 1A of appendix A-4 of this part shall be used to select sampling port locations and the number of traverse points in each stack or duct. Sampling sites must be located at the outlet of the control device (or at the

outlet of the emissions source if no control device is present) prior to any releases to the atmosphere.

(2) Method 2, 2A, 2C, 2D, 2F, or 2G of appendix A-4 of this part shall be used to determine the volumetric flow rate of the stack gas.

(3) Method 3, 3A, or 3B of appendix A-4 of this part shall be used to determine the dry molecular weight of the stack gas. The owner or operator may use ANSI/ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses (incorporated by reference—see §60.17) as an alternative to EPA Method 3B of appendix A-2 of this part.

(4) Method 4 of appendix A-4 of this part shall be used to determine the moisture content of the stack gas.

(5) Method 5, 5B or 5D of appendix A-4 of this part or Method 17 of appendix A-7 of this part shall be used to determine the PM concentration as follows:

(i) The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30 dscf). Sampling shall begin no less than 30 minutes after startup and shall terminate before shutdown procedures begin. A minimum of three valid test runs are needed to comprise a PM performance test.

(ii) Method 5 of appendix A of this part shall be used only to test emissions from affected facilities without wet flue gas desulfurization (FGD) systems.

(iii) Method 5B of appendix A of this part is to be used only after wet FGD systems.

(iv) Method 5D of appendix A-4 of this part shall be used for positive pressure fabric filters and other similar applications (e.g., stub stacks and roof vents).

(v) Method 17 of appendix A-6 of this part may be used at facilities with or without wet scrubber systems provided the stack gas temperature does not exceed a temperature of 160 °C (320 °F). The procedures of sections 8.1 and 11.1 of Method 5B of appendix A-3 of this part may be used in Method 17 of appendix A-6 of this part only if it is used after a wet FGD system. Do not use Method 17 of appendix A-6 of this part after wet FGD systems if the effluent is saturated or laden with water droplets.

(6) Method 6, 6A, or 6C of appendix A-4 of this part shall be used to determine the SO<sub>2</sub> concentration. A minimum of three valid test runs are needed to comprise an SO<sub>2</sub> performance test.

(7) Method 7 or 7E of appendix A-4 of this part shall be used to determine the NO<sub>x</sub> concentration. A minimum of

three valid test runs are needed to comprise an NO<sub>x</sub> performance test.

(8) Method 10 of appendix A-4 of this part shall be used to determine the CO concentration. A minimum of three valid test runs are needed to comprise a CO performance test. CO performance tests are conducted concurrently (or within a 30- to 60- minute period) with NO<sub>x</sub> performance tests.

§60.258 Reporting and Recordkeeping.

(a) The owner or operator of a coal preparation and processing plant that commenced construction, reconstruction, or modification after April 28, 2008, shall maintain in a logbook (written or electronic) on-site and make it available upon request. The logbook shall record the following:

(1) The manufacturer's recommended maintenance procedures and the date and time of any maintenance and inspection activities and the results of those activities. Any variance from manufacturer recommendation, if any, shall be noted.

(2) The date and time of periodic coal preparation and processing plant opacity observations noting those sources with emissions above the action level (visible emissions in excess of 5 percent of the observation period)

along with corrective actions taken to reduce visible emissions. Results from the actions shall be noted.

(3) The amount and type of coal processed each calendar month.

(4) The amount of chemical stabilizer or water purchased for use in the coal preparation and processing plant.

(5) Monthly certification that the dust suppressant systems were operational when any coal was processed and that manufacturer's recommendations were followed for all control systems. Any variance from the manufacturer's recommendations, if any, shall be noted.

(6) A copy of any applicable fugitive dust emissions control plan and monthly certification that the plan was implemented as described. Any variance from plan, if any, shall be noted.

(7) For each bag leak detection system, the owner or operator must keep the records specified in paragraphs (a)(7)(i) through (iii) of this section.

(i) Records of the bag leak detection system output;

(ii) Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection settings; and

(iii) The date and time of all bag leak detection system alarms, the time that procedures to determine the cause of the alarm were initiated, the cause of the alarm, an explanation of the actions taken, the date and time the cause of the alarm was alleviated, and whether the cause of the alarm was alleviated within 3 hours of the alarm.

(8) A copy of any applicable monitoring plan for a digital opacity compliance system and monthly certification that the plan was implemented as described. Any variance from plan, if any, shall be noted.

(9) During a performance test of a wet scrubber, and each operating day thereafter, the owner or operator shall record the measurements of both the scrubber pressure loss and water supply pressure.

(b) For the purpose of reports required under section 60.7(c), any owner operator subject to the provisions of this subpart shall report semiannually periods of excess emissions as follows:

(1) The owner or operator of an affected facility with a wet scrubber shall submit semiannual reports to the Administrator of occurrences when the measurements of the scrubber pressure loss and water supply pressure decrease by more than 10 percent from the average determined during the most recent performance test.

(2) All 6-minute average opacities that exceed the applicable standard

(c) The owner or operator of an affected facility shall submit the results of initial performance tests to the Administrator, consistent with the provisions of section 60.8. The owner or operator who elects to comply with the reduced performance testing provisions of sections 60.255(c) or (d) shall include in the performance test report identification of each affected facility that will be subject to the reduced testing, and the design emissions limit of each associated control device. The owner or operator electing to comply with section 60.255(d) shall also include information which demonstrates that the control devices are identical.

(d) After July 1, 2011, within 60 days after the date of completing each performance evaluation conducted to demonstrate compliance with this subpart, the owner or operator of the affected facility must submit the test data to EPA by successfully entering the data electronically into EPA's WebFIRE data base available at <http://cfpub.epa.gov/oarweb/index.cfm?action=fire.main>. For performance tests that cannot be entered into WebFIRE (i.e., Method 9 of appendix A-4 of this part opacity performance tests) the owner or operator of the affected

facility must mail a summary copy to United States  
Environmental Protection Agency; Energy Strategies Group;  
109 TW Alexander DR; mail code: D243-01; RTP, NC 27711.