PERMIT BOILERPLATE PROCEDURES
FOR COAL PREPARATION AND PROCESSING PLANTS

PURPOSE

The purpose of this document is to provide background information, procedures, and instructions to be used when evaluating permit applications for coal preparation and processing plants and for proper utilization of the associated boilerplate.

The provisions of this document and the associated boilerplate apply to both NSPS subpart Y and non-NSPS subpart Y facilities that clean (by wet method), process, convey, store, transfer and load coal. However, thermal dryers and pneumatic coal-cleaning equipment, though covered by NSPS subpart Y, are excluded from these procedures. Permitting of thermal dryers and pneumatic coal-cleaning equipment should be evaluated on a case-by-case basis.

This boilerplate does not apply to coal preparation and processing plants subject to PSD and non-attainment permit review. These procedures and boilerplate provide a guideline for the minimum requirements of the Department of Environmental Quality, when permitting facilities in coal preparation and processing plants that process, convey, store, transfer and load coal. More stringent requirements may be imposed, if necessary, to support compliance with BACT, NAAQS, or other special circumstances.

BACKGROUND

The version of the boilerplate procedures document that preceded this document was approved in April 1996, and the most recent previous boilerplate revision was approved in August 1999. The 1996 procedures relied on NSPS subpart Y requirements in effect in 1996 to establish minimum BACT requirements in the boilerplate.

In October 2009, new NSPS subpart Y requirements became effective for affected facilities in coal preparation and processing plants that commenced construction, reconstruction, or modification after April 28, 2008, with some provisions applicable to sources affected after May 27, 2009. The NSPS subpart Y requirements for plants constructed, reconstructed, or modified between October 27, 1974, and April 28, 2008, remain unchanged. These procedures and the associated boilerplate will establish minimum BACT and other requirements based on the latest provisions of NSPS subpart Y and Virginia's presumptive BACT for coal processing and handling facilities.

APPLICABILITY

General applicability

This boilerplate applies to construction (including modification and/or relocation) or reconstruction of coal preparation and processing plants, coal processing and conveying equipment, including loadout (tipple) facilities that have both NSPS and non-NSPS subpart Y equipment. Thermal dryers and pneumatic cleaning (air tables) are excluded from this boilerplate. Also excluded are underground mining operations (equipment physically located underground), whether located at the mine face or elsewhere underground. The conveyor

that extends from the underground mine mouth to the preparation plant (i.e., the first unit operation above ground) is not considered to be (or be part of) an NSPS subpart Y affected facility and is not subject to minor NSR permitting.

Article 6 permitting is no longer "automatic" for NSPS-affected facilities. Uncontrolled emission rates from both NSPS and non-NSPS facilities must be above the applicability thresholds (listed in 9 VAC 5-80-1105 C or D) to require an Article 6 permit.

NSPS applicability

NSPS subpart Y applies to construction, modification, or reconstruction of affected facilities after October 24, 1974, in coal preparation plants that process more than 200 tons per day. (Note that EPA ADI document NS48 clarifies that NSPS Y is applicable to affected facilities in plants with the **capacity** to process more than 200 tons of coal per day.) Affected facilities include those listed in the definitions section of this document for ***coal preparation and processing plants***. In October 2009, new NSPS subpart Y requirements became effective for affected facilities in coal preparation and processing plants that commenced construction, reconstruction, or modification after April 28, 2008, with some provisions applicable to affected sources after May 27, 2009. Specifically:

After April 28, 2008:

- Specific provisions for truck dumps were added;
- Visible emissions limits for coal processing equipment were lowered from less than 20% to less than 10% opacity;
- Requirements to conduct recurring periodic visible emissions observations (or checks) on affected facilities;
- Special provisions for continuous monitoring of control devices on mechanical vents;
- Special requirements for the content and maintenance of a logbook;
- The term ***coal refuse*** was added to the definition of coal for post-May 27, 2009 facilities;
- Open storage piles constructed, reconstructed, or modified after May 27, 2009, were added to the list of affected facilities.

The NSPS subpart Y requirements for facilities constructed, reconstructed, or modified between October 27, 1974, and April 28, 2008, did not change in the 2009 revision.

NSPS subpart Y at 40 CFR 60.250-258 should be consulted for complete applicability details, standards, and requirements. Some of the NSPS requirements will be presented elsewhere in this procedures document, but the inclusion of such requirements is not exhaustive in these procedures. The full text of NSPS subpart Y is included as an Attachment to these procedures. NOTE: Since 2010, EPA has had under consideration, revisions to NSPS subpart Y. For NSPS Y affected facilities, the most current regulations should be consulted for possible changes in applicable requirements to those presented in this guidance document.

Toxic pollutants

Toxic pollutants are generally not encountered from coal processing and preparation plants, except from some materials and chemicals associated with wet processing (flocculants,

petroleum additives, etc.) and from fuel combustion. Fuel combustion is not within the scope of this procedure. The composition of wet process additives such as flotation reagents, flocculants, and petroleum-based additives should be considered and evaluated according to Virginia toxic pollutant regulations. Toxic pollutant emission rates from wet processing can be estimated by a material balance approach or other acceptable methods.

MACT

There is no major or area source MACT category, either proposed or promulgated, for coal processing, cleaning, or handling facilities.

New and Existing source rules

The provisions of NSPS subpart Y are incorporated by reference in 9 VAC 5-50-410 subpart Y and are applicable to affected new and modified sources. Chapter 50 also contains provisions in Article 1 that would apply to visible emissions and fugitive dust and fugitive emissions at affected new and modified sources. Article 15 of Chapter 40 pertains to existing coal preparation plants and Chapter 40, Article 1 (General Process Operations) standards would apply to existing sources when no Article 15 standards apply.

DEFINITIONS

Below are definitions of terms used in these procedures and in NSPS subpart Y. Terms not defined herein have the meaning given them in NSPS subpart A and the Virginia Administrative Code.

Anthracite means coal that is classified as anthracite according to the American Society of Testing and Materials in ASTM D388.

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.

Coal means:

(1) For units constructed, reconstructed, or modified on or before May 27, 2009, all solid fossil fuels classified as anthracite, bituminous, subbituminous, or lignite by ASTM D388.

(2) For units constructed, reconstructed, or modified after May 27, 2009, all solid fossil fuels classified as anthracite, bituminous, subbituminous, or lignite by ASTM D388, and coal refuse.

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 conveyor belts. Equipment located at the mine face is not considered to be part of the coal preparation and processing plant.

Coal refuse means waste products of coal mining, physical coal cleaning, and coal preparation operations (e.g. culm, gob, reject, etc.) containing coal, matrix material, clay, and other organic and inorganic material.

Coal storage system means any facility used to store coal except for open storage piles.

Design controlled potential PM emissions rate means the theoretical particulate matter emissions 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)). *(Note that this should be "grams per megagram")*.

Lignite means coal that is classified as lignite A or B according to the American Society of Testing and Materials in ASTM D388.

Mechanical vent means any vent that uses a powered mechanical drive (machine) to induce air flow.

Open storage pile means any facility, including storage area, that is not enclosed that is used to store coal, including the equipment used in the loading, unloading, and conveying operations of the facility.

Pneumatic coal-cleaning equipment means any facility which classifies coal by size or separates coal from refuse by application of air stream(s).

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.

Thermal dryer means any facility in which the moisture content of coal is reduced by 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.

CONVEYORS AND NSPS Y APPLICABILITY

Conveyors at coal preparation and processing plants that process more than 200 tons of coal per day are not universally NSPS Y affected facilities. A conveyor is an affected facility if it was constructed, reconstructed or modified after October 27, 1974, and meets any of the following criteria:

1. The conveyor is part of a coal storage system that is an NSPS Y affected facility.
2. The conveyor is part of a transfer and loading system that is an NSPS Y affected facility.
3. The conveyor is used to transport coal to or to remove coal and refuse from machinery that is used to reduce the size of coal or to separate coal from refuse.
4. The conveyor is part of an open storage pile that is an NSPS Y affected facility.

Conveyors that do not meet at least one of these 4 criteria would not be NSPS Y affected facilities, but may still be subject to BACT and/or other minor NSR permitting requirements.

EMISSIONS CALCULATIONS

Criteria pollutant emissions

Unless specified and well documented by the applicant, the following emission factors should be used to calculate particulate emissions. Unless otherwise noted, all factors are uncontrolled and are taken from the Stone Processing Operations boilerplate procedures; January 2005 version. When calculating allowable or expected particulate emissions, the control efficiencies cited in the Emission Controls and BACT section (page 6 of this document) can be used, unless otherwise documented by the applicant, or determined by DEQ engineering analysis.

Coal Processing Activity	PM (lb/ton)	PM-10 (lb/ton)	PM-2.5 (lb/ton)
Unloading to bin or stockpile	0.0003	0.0001	0.00005 [1]
Crushers/rotary breakers	0.0054	0.0024	0.0012 [1]
Screens/bar grizzlies	0.025	0.0087	0.0044 [1]
Conveyor-to-conveyor transfer	0.003	0.0011	0.0006 [1]
Open Storage Piles [2]	0.0034	0.0012	0.00018
Transfer and loading system	0.003	0.0011	0.0006 [1]

[1] PM-2.5 factor based on 50% of PM-10 factor. This value is believed to be conservative as evidenced by the controlled particulate emissions from aggregate processing listed in AP-42 Table 11.19.2-2 indicate that PM-2.5 comprises between 6% and 28% of the PM-10 fraction.

[2] The listed open storage pile emission factors were calculated using the predictive emission factor equation from AP-42 Section13.2.4.3, with 4% coal moisture and 11 mph (5 m/s) wind speed.

Wet process emissions

Volatile organic compound emissions for wet coal cleaning are provided below and can be used to evaluate such processes. Wet cleaning processes such as froth flotation, heavy media separation, and other processes in which the coal is completely saturated with water, are presumed to have no potential to emit particulate emissions.

VOC 0.05 lb/T of clean coal produced*

* This factor can be used without requiring information on the material used in the wet process. If preferred, a material balance method may be utilized to calculate VOC emissions. The 0.05 lb/T factor was developed by DEQ SWRO personnel, in collaboration with coal companies in the 1990's.

REQUIREMENTS

Emission Controls and BACT

Best Available Control Technology may be applicable to the facility for particulate matter, VOC, toxics, or all or any combination of these pollutants. BACT applicability is determined in accordance with regulatory requirements of 9 VAC 5-50-260, so reviewers should consult regulations for details.

When BACT is applicable, such permit requirements must be equally or more stringent than applicable NSPS standards. A notable exception where Virginia BACT has historically been more stringent than NSPS requirements is for baghouse exhaust opacity. Virginia has consistently required 5% opacity for such exhausts, which is more stringent than either previous or new NSPS requirements. This requirement is upheld in this procedures document.

In order to meet applicable standards, control technology that results in emission rates commensurate with control efficiencies equivalent to wet suppression or full enclosure is the minimum acceptable presumptive BACT for coal preparation and processing plants (except for open storage piles). Open storage pile BACT is the level of emissions commensurate with the control provided in the fugitive coal dust emissions control plan (FCDECP; see **Control Plan** discussion on page 8 of this document). For stockpiles not subject to the FCDECP requirement, BACT is wet suppression or other equivalent method. The following list shows commonly used particulate control methods (and efficiencies) employed at coal preparation facilities:

Particulate Control Technique	PM Control	PM-10 / PM-2.5 Control
Partial enclosure	70%	70%
Full enclosure	95%	90%
Wet suppression	95%	90%
Wet suppression + partial enclosure	98%	97%
Wet suppression + full enclosure	99%	99%
Baghouse	99%	99%

Note that the actual control efficiencies for PM-2.5 emissions would be expected to be somewhat lower than the corresponding efficiencies for PM-10 emissions. However, since many of the PM-2.5 emission factors used in this guidance document are based on the controlled values reported for aggregate processing, the expected emissions of PM-2.5

calculated using the indicated control efficiencies (equivalent to those for PM-10) are expected to be conservative.

Open storage piles

Post-May 27, 2009 open storage piles must be operated in accordance with a submitted fugitive coal dust emissions control plan (FCDECP; see **Control Plan** discussion on page 8 of this document). For open storage piles, the FCDECP must require either partial enclosure, water spray or fog, chemical dust suppression, wind barrier, compaction, or vegetative cover.

Permit limits

Emissions - Annual and hourly permit limits are required for each criteria pollutant, in accordance with current agency guidance. Agency guidance requires that limits should be included for criteria pollutants that would have allowable annual emission rates equal to or greater than 0.5 ton per year.

PM emissions from mechanical vents on affected facilities constructed after April 28, 2008, shall not exceed 0.010 gr/dscf. The PM concentration limit applies to mechanical vents that are coupled to an affected facility and directly vent emissions from the facility. However, the emissions from mechanical vents which are used for general ventilation from a building containing affected facilities are not subject to the PM concentration limit.

Throughput – For a permit having an annual particulate limit, an annual raw coal processing limit should be included. If the VOC emissions from the facility are based on the 0.05 lbs VOC/ton of clean coal produced, the production of clean coal from the preparation plant should also be limited.

Opacity – The following visible emissions limitations apply to coal processing and conveying equipment, coal storage systems, and transfer and loading systems, in accordance with their respective applicability dates:

Before April 28, 2008	less than 20%
After April 28, 2008	less than 10%

Note that NSPS Y does not limit the opacity of open storage piles (which includes the equipment that conveys coal to and from the piles). Open storage piles (and the equipment that conveys coal to and from the piles) are limited to 20% opacity by 9 VAC 5-50-80.

Virginia's BACT requirement for opacity from baghouse-controlled operations is 5%.

Wet process chemicals – Facilities that use a material balance to derive their allowable VOC emission rates from wet processing, should include consumption limits on the chemicals and petroleum additives used in the material balance.

Toxic pollutants – For permits that require toxic pollutant limitations in accordance with current agency guidance and regulations, such limitations should be incorporated at the end of the permit in a section identified as "State-Only Enforceable," or under some other equivalent heading.

Other permit requirements

Control Plan – For post-May 27, 2009, open storage piles (including the equipment used in the loading, unloading, and conveying operations of the piles), such facilities must operate in accordance with a submitted fugitive coal dust emissions control plan (FCDECP). The EPA Administrator can allow a "customized" FCDECP.

Emissions/Compliance testing - For pre-April 28, 2008 affected facilities, initial compliance tests are required by 60.8 using 60.257 methods.

Except for coal truck dumping, post-April 28, 2008 facilities that are subject to a PM standard (i.e., the grain loading limitation) must conduct an initial performance test in accordance with NSPS subpart Y, and retesting is required, as shown below:

if > 50% of standard → retest within 12 months
if ≤ 50% of standard → retest within 24 months

Post-April 28, 2008 facilities that are subject to a PM standard that use a control device with a design controlled potential PM emissions rate of 1.0 Mg (1.1 tons) per year or less are exempted from the retesting schedule listed above if the following conditions are met:

- PM emissions determined by the most recent performance test are less than or equal to the applicable limit.
- The control device manufacturer's recommended maintenance procedures are followed, and
- All 6-minute average opacity readings from the most recent performance test are equal to or less than half the applicable opacity limit.

Post-April 2008 sources subject to an opacity standard must conduct initial performance tests (note that NSPS Y does not specify an opacity standard for open storage piles and the equipment used in the loading, unloading, and conveying operations of the pile). Such tests must be in accordance with Method 9 and must be conducted for one hour (ten six-minute averages). The option exists in NSPS subpart Y for the one-hour Method 9 observation time to be reduced to 30 minutes, provided all individual six-minute averages are less than half the applicable standard.

Opacity tests must be repeated as indicated below:

if 6 min. avg. > half the standard → retest within 90 days
if 6 min. avg. ≤ half the standard → retest within 12 months

NSPS subpart Y contains alternatives to the initial and repeat opacity tests, which if selected by the applicant, could be included in the permit as a boilerplate deviation. The reviewer should consult 40 CFR 60.255 (f) and (g) for specific information about alternatives to the initial and repeat opacity tests that include either 1) daily observations, 2) digital photographic monitoring, or 3) COMS.

For truck dumping operations, initial Method 9 tests with readings at 15-second intervals are required during three separate truck-dumping events. These tests should be repeated every 5 years. Visible observations, as discussed in NSPS subpart Y are required for truck

dumping operations on a monthly basis. The subpart requires that performance of necessary maintenance be conducted expeditiously, when visible observations indicate the presence of problems or issues that may or that do adversely impact operations, emissions, maintenance, etc.

Bag leak detection system – For post-April 2008 affected facilities with baghouse control and having a mechanical vent, a bag leak detection system is required if the controlled PM PTE from the vent is greater than or equal to 28 tons per year. The owner/operator must prepare and submit to DEQ a plan for operation of the bag leak detection system, in accordance with the requirements of NSPS subpart Y. All calibration, maintenance, and operating requirements of the NSPS subpart are applicable.

Training, Operation, and Maintenance – In accordance with standard DEQ permit conditions, operators should be trained on the proper operation and maintenance of process equipment and air pollution control systems. The source is required to maintain written air pollution control equipment operation and maintenance procedures on site.

Notification - The owner or operator of all facilities subject to this boilerplate must submit notification of the following:

- the date of commencement of construction or reconstruction,
- the anticipated date of initial startup (for NSPS sources),
- the actual date of initial startup,
- the anticipated date of opacity observations (NSPS sources).

Each notification shall be submitted to the DEQ Regional Office. Copies, as applicable, should be mailed to the EPA Region III if the equipment is subject to NSPS. Consult current agency guidance for additional information about notifications.

The owner and operator of all facilities must notify the DEQ of any malfunction causing excess emissions for more than one hour. This notification shall be made within four daytime business hours of the occurrence and shall, within two weeks, submit a written statement giving all pertinent facts.

Recordkeeping – General recordkeeping requirements for affected facilities include maintaining the following records on site for the most recent five-year period, at a minimum:

- monthly and annual records of coal received;
- monthly and annual records of coal shipped;
- a statement of the time, place, and nature of training provided to each operator; and
- air pollution control equipment maintenance records.

In addition to these requirements, post-April 2008 coal preparation plants must maintain on-site a written or electronic logbook that contains all the items contained in 40 CFR 60. 258 (a) (1) through (10). Note that if a pre-2008 coal preparation plant adds an affected facility that also meets the definition of a coal preparation and processing plant (i.e., a screen or crusher manufactured after 4/28/2008), the logbook requirements will apply to the new affected facilities.

Reporting – In addition to standard conditions regarding emission inventory requests, post-April 2008 facilities must provide semiannual reports of periods of excess emissions, including excess opacity emissions.

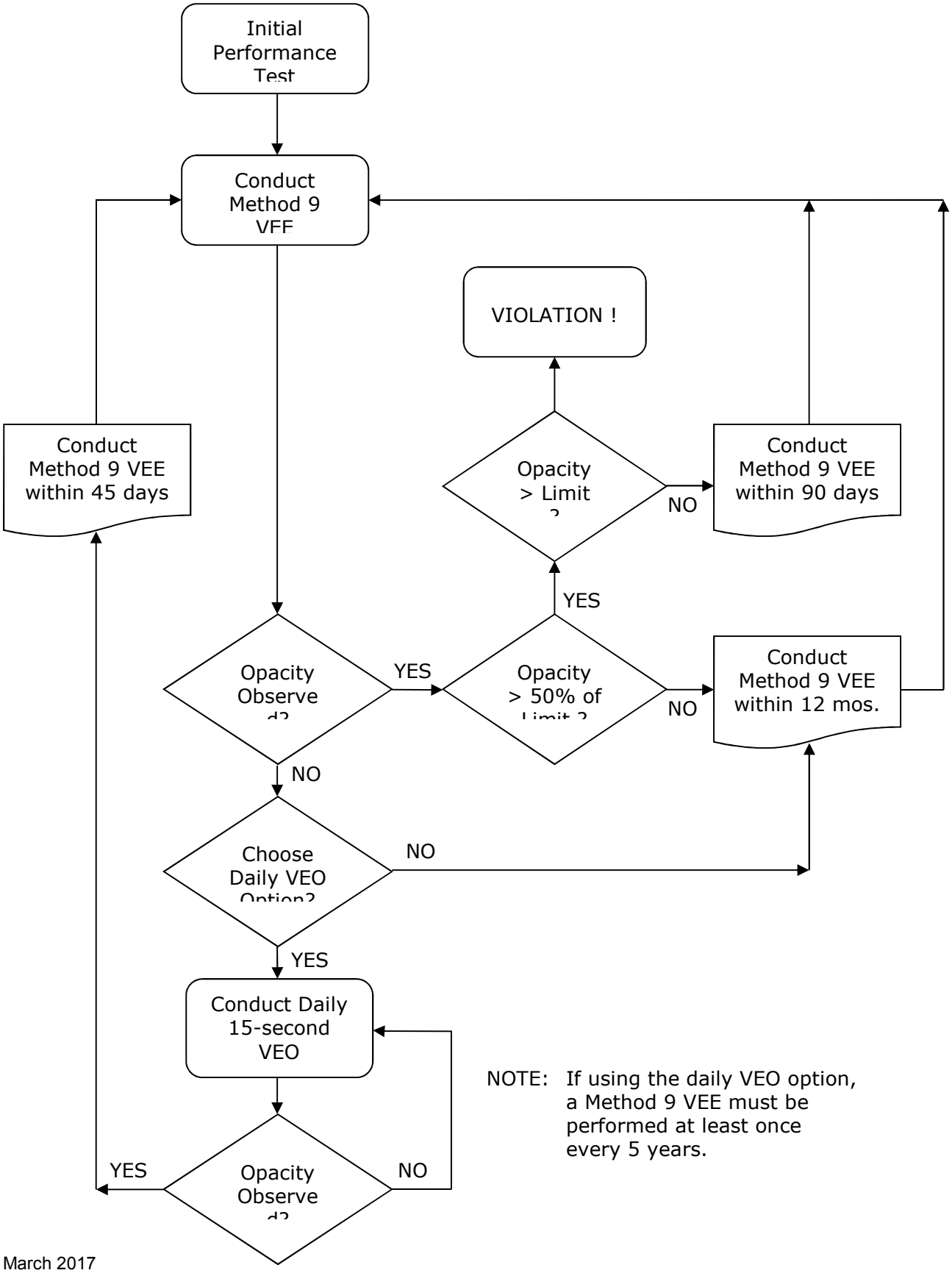
Test results are required to be submitted to DEQ in accordance with 40 CFR 60.8. ***Important note:*** After July 1, 2011, test data must be submitted to US EPA electronically, in accordance with instructions in NSPS subpart Y.

Modeling – Criteria pollutant (i.e., PM-10 and PM-2.5) modeling may be required when thresholds in agency guidance are exceeded. Criteria pollutant modeling for minor sources may be required for sources proposing an increase in PTE of criteria pollutant emissions from point sources greater than the significance thresholds in the table below. If a significance threshold is exceeded for a pollutant, the Central Office modeling section should be contacted to ascertain the need for an air quality analysis.

Pollutant	Greenfield Facility PTE or Emissions Increase (in PTE) from a Modification (tons per year)
Carbon Monoxide (CO)	100
Nitrogen Oxides (NO_X)	40
Sulfur Dioxide (SO_2)	40
Particulate Matter ≤10 µm (PM-10)	15
Particulate Matter ≤ 2.5 µm (PM-2.5)	10
Lead (Pb)	0.6

Just as with permit applicability determinations, increases in fugitive emissions alone at a minor source do not trigger modeling, but when minor point source emissions trigger modeling, fugitive emissions must then be considered in the modeling. Toxic pollutant modeling may be required for non-exempt toxic pollutant emission rates and all modeling should be done according to current agency guidance.

Opacity Observation Requirements for Post-4/28/2008 NSPS Y Affected Facilities



NOTE: If using the daily VEO option, a Method 9 VEE must be performed at least once every 5 years.

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

Source: 74 FR 51977, Oct. 8, 2009, unless otherwise noted.

§ 60.250 Applicability and designation of affected facility.

(a) The provisions of this subpart apply to affected facilities in coal preparation and processing plants that process more than 181 megagrams (Mg) (200 tons) of coal per day.

(b) The provisions in §60.251, §60.252(a), §60.253(a), §60.254(a), §60.255(a), and §60.256(a) of this subpart are applicable to any of the following affected facilities that commenced construction, reconstruction or modification after October 27, 1974, and on or before April 28, 2008: Thermal dryers, pneumatic coal-cleaning equipment (air tables), coal processing and conveying equipment (including breakers and crushers), and coal storage systems, transfer and loading systems.

(c) The provisions in §60.251, §60.252(b)(1) and (c), §60.253(b), §60.254(b), §60.255(b) through (h), §60.256(b) and (c), §60.257, and §60.258 of this subpart are applicable to any of the following affected facilities that commenced construction, reconstruction or modification after April 28, 2008, and on or before May 27, 2009: Thermal dryers, pneumatic coal-cleaning equipment (air tables), coal processing and conveying equipment (including breakers and crushers), and coal storage systems, transfer and loading systems.

(d) The provisions in §60.251, §60.252(b)(1) through (3), and (c), §60.253(b), §60.254(b) and (c), §60.255(b) through (h), §60.256(b) and (c), §60.257, and §60.258 of this subpart are applicable to any of the following affected facilities that commenced construction, reconstruction or modification after May 27, 2009: Thermal dryers, pneumatic coal-cleaning equipment (air tables), coal processing and conveying equipment (including breakers and crushers), coal storage systems, transfer and loading systems, and open storage piles.

§ 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.

(a) *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).

(b) *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.

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

(d) *Coal* means:

(1) For units constructed, reconstructed, or modified on or before May 27, 2009, all solid fossil fuels classified as anthracite, bituminous, subbituminous, or lignite by ASTM D388 (incorporated by reference— see §60.17).

(2) For units constructed, reconstructed, or modified after May 27, 2009, all solid fossil fuels classified as anthracite, bituminous, subbituminous, or lignite by ASTM D388 (incorporated by reference— see §60.17), and coal refuse.

(e) *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.

(f) *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 conveyor belts. Equipment located at the mine face is not considered to be part of the coal preparation and processing plant.

(g) *Coal refuse* means waste products of coal mining, physical coal cleaning, and coal preparation operations (e.g. culm, gob, etc.) containing coal, matrix material, clay, and other organic and inorganic material.

(h) *Coal storage system* means any facility used to store coal except for open storage piles.

(i) *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)).

(j) *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 another subpart 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 another subpart of this part, then the furnace and the associated emissions are part of the affected facility.

(k) *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).

(l) *Mechanical vent* means any vent that uses a powered mechanical drive (machine) to induce air flow.

(m) *Open storage pile* means any facility, including storage area, that is not enclosed that is used to store coal, including the equipment used in the loading, unloading, and conveying operations of the facility.

(n) *Operating day* means a 24-hour period between 12 midnight and the following midnight during which 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.

(o) *Pneumatic coal-cleaning equipment* means:

(1) For units constructed, reconstructed, or modified on or before May 27, 2009, any facility which classifies bituminous coal by size or separates bituminous coal from refuse by application of air stream(s).

(2) For units constructed, reconstructed, or modified after May 27, 2009, any facility which classifies coal by size or separates coal from refuse by application of air stream(s).

(p) *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.

(q) *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).

(r) *Thermal dryer* means:

(1) For units constructed, reconstructed, or modified on or before May 27, 2009, 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.

(2) For units constructed, reconstructed, or modified after May 27, 2009, 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.

(s) *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) Except as provided in paragraph (c) of this section, 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 and opacity, as specified in paragraph (b)(1) of this section. In addition, and except as provided in paragraph (c) of this section, 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 May 29, 2009, subject to the provisions of this subpart must also meet the applicable standards for sulfur dioxide (SO_2), and combined nitrogen oxides (NO_X) and carbon monoxide (CO) as specified in paragraphs (b)(2) and (b)(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 or reconstructed 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 modified after April 28, 2008, the owner or operator must meet the requirements of paragraphs (b)(1)(ii)(A) and (b)(1)(ii)(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) Except as provided in paragraph (b)(2)(iii) of this section, for each thermal dryer constructed, reconstructed, or modified after May 27, 2009, the owner or operator must meet the requirements for SO_2 emissions in either paragraph (b)(2)(i) or (b)(2)(ii) of this section.

(i) The owner or operator must not cause to be discharged into the atmosphere from the affected facility any gases that contain SO_2 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_2 in excess of 520 ng/J (1.20 lb/MMBtu) heat input or contain SO_2 in excess of 10 percent of the potential combustion concentration (i.e., the facility must achieve at least a 90 percent reduction of the potential combustion concentration and may not exceed a maximum emissions rate of 1.2 lb/MMBtu (520 ng/J)).

(iii) Thermal dryers that receive all of their thermal input from a source other than coal or residual oil, that receive all of their thermal input from a source subject to an SO_2 limit under another subpart of this part, or that use waste heat or residual from the combustion of coal or residual oil as their only thermal input are not subject to the SO_2 limits of this section.

(3) Except as provided in paragraph (b)(3)(iii) of this section, the owner or operator must meet the requirements for combined NO_X and CO emissions in paragraph (b)(3)(i) or (b)(3)(ii) of this section, as applicable to the affected facility.

(i) For each thermal dryer constructed after May 27, 2009, 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_X and CO in excess of 280 ng/J (0.65 lb/MMBtu) heat input.

(ii) For each thermal dryer reconstructed or modified after May 27, 2009, 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_X and CO in excess of 430 ng/J (1.0 lb/MMBtu) heat input.

(iii) Thermal dryers that receive all of their thermal input from a source other than coal or residual oil, that receive all of their thermal input from a source subject to a NO_X limit and/or CO limit under another subpart of this part, or that use waste heat or residual from the combustion of coal or residual oil as their only thermal input, are not subject to the combined NO_X and CO limits of this section.

(c) Thermal dryers receiving all of their thermal input from an affected facility covered under another 40 CFR Part 60 subpart must meet the applicable requirements in that subpart but are not subject to the requirements in this subpart.

§ 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 or 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 systems, transfer and loading systems, and open storage piles.

(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) Except as provided in paragraph (b)(3) of this section, the owner or operator must not cause to be discharged into the atmosphere from the affected facility any gases which exhibit 10 percent opacity or greater.

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

(3) Equipment used in the loading, unloading, and conveying operations of open storage piles are not subject to the opacity limitations of paragraph (b)(1) of this section.

(c) The owner or operator of an open storage pile, which includes the equipment used in the loading, unloading, and conveying operations of the affected facility, constructed, reconstructed, or modified after May 27, 2009, must prepare and operate in accordance with a submitted fugitive coal dust emissions control plan that is appropriate for the site conditions as specified in paragraphs (c)(1) through (6) of this section.

(1) The fugitive coal dust emissions control plan must identify and describe the control measures the owner or operator will use to minimize fugitive coal dust emissions from each open storage pile.

(2) For open coal storage piles, the fugitive coal dust emissions control plan must require that one or more of the following control measures be used to minimize to the greatest extent practicable 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 (when the provisions of paragraph (c)(6) of this section are met), use of a wind barrier, compaction, or use of a vegetative cover. The owner or operator must select, for inclusion in the fugitive coal dust emissions control plan, the control measure or measures listed in this paragraph that are most appropriate for site conditions. The plan must also explain how the measure or measures selected are applicable and appropriate for site conditions. In addition, the plan must be revised as needed to reflect any changing conditions at the source.

(3) Any owner or operator of an affected facility that is required to have a fugitive coal dust emissions control plan may petition the Administrator to approve, for inclusion in the plan for the affected facility, alternative control measures other than those specified in paragraph (c)(2) of this section as specified in paragraphs (c)(3)(i) through (iv) of this section.

(i) The petition must include a description of the alternative control measures, a copy of the fugitive coal dust emissions control plan for the affected facility that includes the alternative control measures, and information sufficient for EPA to evaluate the demonstrations required by paragraph (c)(3)(ii) of this section.

(ii) The owner or operator must either demonstrate that the fugitive coal dust emissions control plan that includes the alternate control measures will provide equivalent overall environmental protection or demonstrate that it is either economically or technically infeasible for the affected facility to use the control measures specifically identified in paragraph (c)(2).

(iii) While the petition is pending, the owner or operator must comply with the fugitive coal dust emissions control plan including the alternative control measures submitted with the petition. Operation in accordance with the plan submitted with the petition shall be deemed to constitute compliance with the requirement to operate in accordance with a fugitive coal dust emissions control plan that contains one of the control measures specifically identified in paragraph (c)(2) of this section while the petition is pending.

(iv) If the petition is approved by the Administrator, the alternative control measures will be approved for inclusion in the fugitive coal dust emissions control plan for the affected facility. In lieu of amending this subpart, a letter will be sent to the facility describing the specific control measures approved. The facility shall make any such letters and the applicable fugitive coal dust emissions control plan available to the public. If the Administrator determines it is appropriate, the conditions and requirements of the letter can be reviewed and changed at any point.

(4) The owner or operator must submit the fugitive coal dust emissions control plan to the Administrator or delegated authority as specified in paragraphs (c)(4)(i) and (c)(4)(ii) of this section.

(i) The plan must be submitted to the Administrator or delegated authority prior to startup of the new, reconstructed, or modified affected facility, or 30 days after the effective date of this rule, whichever is later.

(ii) The plan must be revised as needed to reflect any changing conditions at the source. Such revisions must be dated and submitted to the Administrator or delegated authority before a source can operate pursuant to these revisions. The Administrator or delegated authority may also object to such revisions as specified in paragraph (c)(5) of this section.

(5) The Administrator or delegated authority may object to the fugitive coal dust emissions control plan as specified in paragraphs (c)(5)(i) and (c)(5)(ii) of this section.

(i) The Administrator or delegated authority may object to any fugitive coal dust emissions control plan that it has determined does not meet the requirements of paragraphs (c)(1) and (c)(2) of this section.

(ii) If an objection is raised, the owner or operator, within 30 days from receipt of the objection, must submit a revised fugitive coal dust emissions control plan to the Administrator or delegated authority. The owner or operator must operate in accordance with the revised fugitive coal dust emissions control plan. The Administrator or delegated authority retain the right, under paragraph (c)(5) of this section, to object to the revised control plan if it determines the plan does not meet the requirements of paragraphs (c)(1) and (c)(2) of this section.

(6) Where appropriate chemical dust suppression agents are selected by the owner or operator as a control measure to minimize fugitive coal dust emissions, (1) only chemical dust suppressants with Occupational Safety and Health Administration (OSHA)-compliant material safety data sheets (MSDS) are to be allowed; (2) the MSDS must be included in the fugitive coal dust emissions control plan; and (3) the owner or operator must consider and document

in the fugitive coal dust emissions control plan the site-specific impacts associated with the use of such chemical dust suppressants.

§ 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_2, or combined NO_X and CO emissions standard, an initial performance test must be performed. Thereafter, a new performance test must be conducted according the requirements in paragraphs (b)(1)(i) through (iii) 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 to the requirements in paragraphs (b)(2)(i) through (iii) of this section, as applicable, except as provided for in paragraphs (e) and (f) of this section. Performance test and other compliance requirements for coal truck dump operations are specified in paragraph (h) of this section.

(i) If any 6-minute average opacity reading in the most recent performance test exceeds half the applicable opacity limit, a new performance test must be conducted within 90 operating days of the date that the previous performance test was required to be completed.

(ii) If all 6-minute average opacity readings in the most recent performance test are equal to or less than half the applicable opacity limit, a new performance test must be conducted within 12 calendar months of the date that the previous performance test was required to be completed.

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

(c) If any affected coal processing and conveying equipment (e.g., breakers, crushers, screens, conveying systems), coal storage systems, or coal transfer and loading systems that commenced construction, reconstruction, or modification after April 28, 2008, are enclosed in a building, and emissions from the building do not exceed any of the standards in § 60.254 that apply to the affected facility, then the facility shall be deemed to be in compliance with such standards.

(d) An owner or operator of an affected facility (other than a thermal dryer) that commenced construction, reconstruction, or modification after April 28, 2008, is subject to a PM emission standard and uses a control device with a design controlled 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 conditions specified in paragraphs (d)(1) through (3) of this section. This exemption does not apply to thermal dryers.

(1) PM emissions, as determined by the most recent performance test, are less than or equal to the applicable limit,

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

(3) All 6-minute average opacity readings from the most recent performance test are equal to or less than half the applicable opacity limit or the monitoring requirements in paragraphs (e) or (f) of this section are followed.

(e) For an owner or operator of a group of up to five of the same type of affected facilities that commenced construction, reconstruction, or modification after April 28, 2008, that are subject to PM emissions standards and use identical control devices, the Administrator or delegated 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 conditions specified in paragraphs (e)(1) through (3) of this section.

(1) PM emissions from the most recent performance test for each individual affected facility are 90 percent or less of the applicable PM standard;

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

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

(f) As an alternative to meeting the requirements in paragraph (b)(2) of this section, an owner or operator of an affected facility that commenced construction, reconstruction, or modification after April 28, 2008, may elect to comply with the requirements in paragraph (f)(1) or (f)(2) of this section.

(1) Monitor visible emissions from each affected facility according to the requirements in paragraphs (f)(1)(i) through (iii) of this section.

(i) Conduct one daily 15-second observation each operating day for each affected facility (during normal operation) when the coal preparation and processing plant is in operation. Each observation must be recorded as either visible emissions observed or no visible emissions observed. Each observer determining the presence of visible emissions must meet the training requirements specified in §2.3 of Method 22 of appendix A–7 of this part. If visible emissions are observed during any 15-second observation, the owner or operator must adjust the operation of the affected facility and demonstrate within 24 hours that no visible emissions are observed from the affected facility. If visible emissions are observed, a Method 9, of appendix A–4 of this part, performance test must be conducted within 45 operating days.

(ii) Conduct monthly visual observations of all process and control equipment. If any deficiencies are observed, the necessary maintenance must be performed as expeditiously as possible.

(iii) Conduct a performance test using Method 9 of appendix A–4 of this part at least once every 5 calendar years for each affected facility.

(2) Prepare a written site-specific monitoring plan for a digital opacity compliance system for approval by the Administrator or delegated authority. 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 or delegated authority shall be implemented by the owner or operator.

(g) As an alternative to meeting the requirements in paragraph (b)(2) of this section, an owner or operator of an affected facility that commenced construction, reconstruction, or modification after April 28, 2008, 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 (g)(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 (g)(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.

(h) The owner or operator of each affected coal truck dump operation that commenced construction, reconstruction, or modification after April 28, 2008, must meet the requirements specified in paragraphs (h)(1) through (3) of this section.

(1) Conduct an initial performance test using Method 9 of appendix A–4 of this part according to the requirements in paragraphs (h)(1)(i) and(ii).

(i) Opacity readings shall be taken during the duration of three separate truck dump events. Each truck dump event commences when the truck bed begins to elevate and concludes when the truck bed returns to a horizontal position.

(ii) Compliance with the applicable opacity limit is determined by averaging all 15-second opacity readings made during the duration of three separate truck dump events.

(2) Conduct monthly visual observations of all process and control equipment. If any deficiencies are observed, the necessary maintenance must be performed as expeditiously as possible.

(3) Conduct a performance test using Method 9 of appendix A–4 of this part at least once every 5 calendar years for each affected facility.

§ 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 ±1.7 °C (±3 °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 ±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 ±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) through (3) 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 design controlled potential PM emissions rates 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) through (iv) 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 ±1 inch water gauge.

(ii) A monitoring device for the continuous measurement of the water supply flow rate to the control equipment. The monitoring device is to be certified by the manufacturer to be accurate within ±5 percent of design water supply flow rate.

(iii) A monitoring device for the continuous measurement of the pH of the wet scrubber liquid. The monitoring device is to be certified by the manufacturer to be accurate within ±5 percent of design pH.

(iv) An average value for each monitoring parameter must be determined during each performance test. Each monitoring parameter must then be maintained within 10 percent of the value established during the most recent performance test on an operating day average basis.

(3) For mechanical vents with control equipment other than wet scrubbers, a monitoring device for the continuous measurement of the reagent injection flow rate to the control equipment, as applicable. The monitoring device is to be certified by the manufacturer to be accurate within ±5 percent of design injection flow rate. An average reagent injection flow rate value must be determined during each performance test. The reagent injection flow rate must then be maintained within 10 percent of the value established during the most recent performance test on an operating day average basis.

(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 delegated 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 Administrator or delegated authority for approval a site-specific monitoring plan for each bag leak detection system. This plan must be submitted to the Administrator or delegated authority 30 days prior to startup of 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 delegated 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 (3) 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, with the exceptions specified in paragraphs (a)(1)(i) and (ii).

(i) The duration of the Method 9 of appendix A–4 of this part performance test shall be 1 hour (ten 6-minute averages).

(ii) If, during the initial 30 minutes of the observation of a Method 9 of appendix A–4 of this part performance test, all of the 6-minute average opacity readings are less than or equal to half the applicable opacity limit, then the observation period may be reduced from 1 hour to 30 minutes.

(2) To determine opacity for fugitive coal dust 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 coal dust 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) 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)(3)(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 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_2 concentration. A minimum of three valid test runs are needed to comprise an SO_2 performance test.

(7) Method 7 or 7E of appendix A–4 of this part shall be used to determine the NO_X concentration. A minimum of three valid test runs are needed to comprise an NO_X 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 60-minute period) with NO_X 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 visual observations, noting those sources with visible emissions 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) Monthly certification that the fugitive coal dust emissions control plan was implemented as described. Any variance from the plan, if any, shall be noted. A copy of the applicable fugitive coal dust emissions control plan and any letters from the Administrator providing approval of any alternative control measures shall be maintained with the logbook. Any actions, e.g. objections, to the plan and any actions relative to the alternative control measures, e.g. approvals, shall be noted in the logbook as well.

(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 the scrubber pressure loss, water supply flow rate, and pH of the wet scrubber liquid.

(10) During a performance test of control equipment other than a wet scrubber, and each operating day thereafter, the owner or operator shall record the measurements of the reagent injection flow rate, as applicable.

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

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

(2) The owner or operator of an affected facility with control equipment other than a wet scrubber shall submit semiannual reports to the Administrator or delegated authority of occurrences when the measurements of the reagent injection flow rate, as applicable, vary by more than 10 percent from the average determined during the most recent performance test.

(3) 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 or delegated authority, 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. 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.