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## **1.0. Emission Units**

**All emission units covered by this permit are listed on the issued G10-D Registration.**

### **1.1. Control Devices**

**All control devices covered by this permit are listed on the issued G10-D Registration.**

## **2.0. General Conditions**

### **2.1. Purpose**

The purpose of this Class II General Permit is to authorize the construction, modification, administrative update, relocation, and operation of eligible coal preparation and processing plants and coal handling operations through a Class II General Permit registration process. The requirements, provisions, standards and conditions of this Class II General Permit address the prevention and control of regulated pollutants from the operation of coal preparation and processing plants and coal handling operation(s).

### **2.2 Authority**

This permit is issued in accordance with West Virginia air pollution control law W.Va. Code §§ 22-5-1. et seq. and the following Legislative Rules promulgated thereunder:

- 2.2.1. 45CSR2 - *To Prevent and Control Particulate Air Pollution From Combustion of Fuel in Indirect Heat Exchangers;*
- 2.2.2. 45CSR5 - *To Prevent and Control Air Pollution from the Operation of Coal Preparation Plants and Coal Handling Operations;*
- 2.2.3. 45CSR10 - *To Prevent and Control Air Pollution from the Emission of Sulfur Oxides;*
- 2.2.4. 45CSR13 – *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation; and*
- 2.2.5. 45CSR16 - *Standards of Performance for Stationary Sources.* 45CSR16 incorporates by reference 40 C.F.R. 60, Subpart Y - *Standards of Performance for Coal Preparation and Processing Plants,* 40 C.F.R. 60, Subpart IIII - *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines,* 40 C.F.R. 60, Subpart JJJJ - *Standards of Performance for Stationary Spark Internal Combustion Engines.*

## 2.3 Applicability

- 2.3.1. All coal preparation and processing plants or coal handling operations having a Standard Industrial Classification (SIC) code of 1221, 1222 or 4449 (including area sources) or a North American Industry Classification System (NAICS) code of 212111 or 212112 (including area sources) are eligible for this Class II General Permit registration except for:
- a. Any coal preparation and processing plant or coal handling operation with a raw coal process design capacity (input) of more than 2,500 tons per hour or more than 21,900,000 tons per year (General Permit throughput eligibility limit).
  - b. Any coal preparation and processing plant or coal handling operation which is a major source as defined in 45CSR14 or 45CSR30 (General Permit emission eligibility limit).
  - c. Any coal preparation and processing plant, facility or equipment that is subject to the requirements of 45CSR3, 45CSR7, 45CSR14 or 45CSR19.
  - d. Any coal preparation and processing plant or coal handling operation which will require an individual air quality permit review process and/or individual permit provisions to address the emission of a regulated pollutant or to incorporate regulatory requirements other than those established by General Permit G10-D.
  - e. Any coal preparation and processing plant or coal handling operation which incorporates a thermal dryer or an air table.
  - f. Any underground or surface mining operation (except coal preparation and processing plant or coal handling operation situated at or near a surface or underground mine operation).
  - g. Any coal preparation and processing plant or coal handling operation which incorporates a high-wall truck or conveyor dump where raw coal is discharged unenclosed (without a dump bin and stacking tube or full enclosure) from a conveyor, endloader, truck or other transport device over a high-wall having a maximum vertical elevation differential between the drop point and the top of the collected material below (process drop height) in excess of 20 feet.
  - h. Any coal preparation and processing plant or coal handling operation located in or which may significantly impact the area of Brooke County west of State Route 2, north of an extension of the southern boundary of Steubenville Township in Jefferson County, Ohio and south of the Market Street Bridge.
  - i. Any coal preparation and processing plant or coal handling operation located within the boundaries of or which may significantly impact the Weirton nonattainment area.
  - j. Any coal preparation and processing plant or coal handling operation located in or which may significantly impact an area which has been determined to be a PM10 maintenance or nonattainment area.
- 2.3.2. For the purposes of General Permit G10-D, *coal handling operation* means and includes, but shall not be limited to all coal grinding, crushing, picking, screening, conveying, storing and stockpiling operations not associated with a coal preparation plant. For the purposes of General Permit G10-D, *coal preparation and processing plant* means and includes a facility (excluding surface and underground mining operations) that prepares coal by one or more of the following processes: screening, breaking, crushing, wet cleaning and further such definition of a coal preparation and processing plant shall include all coal handling operations associated with the processes described above, but shall not include:
- a. Any facility that would be defined as a coal preparation and processing plant solely because it incorporates a stationary grizzly or scalping screen; or
  - b. Any facility designed to process less than 200 tons of coal per day.

- 2.3.3. The West Virginia Division of Air Quality reserves the right to reopen this permit or any authorization issued under this permit if the area in which the affected facility is located is federally designated as non-attainment for specified pollutants. If subsequently any proposed construction, modification and/or operation does not demonstrate eligibility and/or compliance with the requirements, provisions, standards and conditions of this General Permit, this General Permit registration shall be denied and an individual permit for the proposed activity shall be required.
- 2.3.4. Except for diesel engines, all fuel burning emission units covered by this permit, unless they are classified as De Minimis Sources in 45CSR13 Table 45-13B, must be fueled with pipeline-quality natural gas, field gas, propane gas, or equivalent with a maximum sulfur content of 20 grains of sulfur per 100 standard cubic feet and a maximum H<sub>2</sub>S content of 0.25 grains per 100 cubic feet of gas (maximum allowed to have in natural gas sold for delivery through the interstate pipeline system).  
[45CSR§13-5.11]

## 2.4. Definitions

- 2.4.1. All references to the “West Virginia Air Pollution Control Act” or the “Air Pollution Control Act” mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.
- 2.4.2. The “Clean Air Act” means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.
- 2.4.3. “Secretary” means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.12.). The Director of the Division of Air Quality is the Secretary’s designated representative for the purposes of this permit.

## 2.5. Acronyms

<b>CAAA</b>	Clean Air Act Amendments	<b>NO<sub>x</sub></b>	Nitrogen Oxides
<b>CBI</b>	Confidential Business Information	<b>NSPS</b>	New Source Performance Standards
<b>CEM</b>	Continuous Emission Monitor	<b>PM</b>	Particulate Matter
<b>CES</b>	Certified Emission Statement	<b>PM<sub>2.5</sub></b>	Particulate Matter less than 2.5 μm in diameter
<b>C.F.R. or CFR</b>	Code of Federal Regulations	<b>PM<sub>10</sub></b>	Particulate Matter less than 10μm in diameter
<b>CO</b>	Carbon Monoxide	<b>Ppb</b>	Pounds per Batch
<b>C.S.R. or CSR</b>	Codes of State Rules	<b>Pph</b>	Pounds per Hour
<b>DAQ</b>	Division of Air Quality	<b>Ppm</b>	Parts per Million
<b>DEP</b>	Department of Environmental Protection	<b>Ppm<sub>v</sub> or ppm<sub>v</sub></b>	Parts per Million by Volume
<b>dscm</b>	Dry Standard Cubic Meter	<b>PSD</b>	Prevention of Significant Deterioration
<b>FOIA</b>	Freedom of Information Act	<b>Psi</b>	Pounds per Square Inch
<b>HAP</b>	Hazardous Air Pollutant	<b>SIC</b>	Standard Industrial
<b>HON</b>	Hazardous Organic NESHAP		
<b>HP</b>	Horsepower		
<b>lbs/hr</b>	Pounds per Hour		

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<b>LDAR</b>	Leak Detection and Repair		Classification
<b>M</b>	Thousand	<b>SIP</b>	State Implementation Plan
<b>MACT</b>	Maximum Achievable Control Technology	<b>SO<sub>2</sub></b>	Sulfur Dioxide
<b>MDHI</b>	Maximum Design Heat Input	<b>TAP</b>	Toxic Air Pollutant
<b>MM</b>	Million	<b>TPY</b>	Tons per Year
<b>MMBtu/hr or mmbtu/hr</b>	Million British Thermal Units per Hour	<b>TRS</b>	Total Reduced Sulfur
<b>MMCF/hr or mmcf/hr</b>	Million Cubic Feet per Hour	<b>TSP</b>	Total Suspended Particulate
<b>NA</b>	Not Applicable	<b>USEPA</b>	United States Environmental Protection Agency
<b>NAAQS</b>	National Ambient Air Quality Standards	<b>UTM</b>	Universal Transverse Mercator
<b>NESHAPS</b>	National Emissions Standards for Hazardous Air Pollutants	<b>VEE</b>	Visual Emissions Evaluation
		<b>VOC</b>	Volatile Organic Compounds
		<b>VOL</b>	Volatile Organic Liquids

## 2.6. Permit Expiration and Renewal

- 2.6.1. This Class II General Permit supersedes and replaces previously issued General Permit G10-C. This Class II General Permit shall remain valid, continuous and in effect unless it is revised, suspended, revoked or otherwise changed under an applicable provision of 45CSR13 or any other applicable legislative rule. All General Permit Registrations issued under G10-A, G10-B, and G10-C are subject to this permit upon issuance. This Class II General Permit is being updated to reflect rule changes to 40CFR60 Subpart Y (Standards of Performance for Coal Preparation and Processing Plants).
- 2.6.2. General Permit registration granted by the Secretary shall remain valid, continuous and in effect unless it is suspended or revoked by the Secretary or this Class II General Permit is subject to action or change as set forth in Section 2.6.1 above. **[45CSR§13-10.2, 45CSR§13-10.3]**
- 2.6.3. The Secretary shall review and may renew, reissue or revise this Class II General Permit for cause. The Secretary shall define the terms and conditions under which existing General Permit registrations will be eligible for registration under a renewed, reissued, or revised General Permit and provide written notification to all General Permit registrants (or applicants). This notification shall also describe the registrant's (or applicant's) duty or required action and may include a request for additional information that may be required by any proposed general permit renewal, reissuance or revision.

## 2.7. Administrative Update to General Permit Registration

- 2.7.1. The registrant may request an administrative update to their General Permit registration as defined in and according to the procedures specified in 45CSR§13-4. **[45CSR§13-4.]**



## **2.8. Modification to General Permit Registration**

- 2.8.1. The registrant may request a modification to their General Permit registration as defined in and according to the procedures specified in 45CSR§13-5. [45CSR§13-5.]

## **2.9. Duty to Comply**

- 2.9.1. The registered affected facility shall be constructed and operated in accordance with the information filed in the General Permit Registration Application and any amendments thereto. The Secretary may suspend or revoke a General Permit registration if the plans and specifications upon which the approval was based are not adhered to.
- 2.9.2. The registrant must comply with all applicable conditions of this Class II General Permit. Any General Permit noncompliance constitutes a violation of the West Virginia Code, and/or the Clean Air Act, and is grounds for enforcement action by the Secretary or USEPA.
- 2.9.3. Violation of any of the applicable requirements, provisions, standards or conditions contained in this Class II General Permit, or incorporated herein by reference, may subject the registrant to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7.
- 2.9.4. Registration under this Class II General Permit does not relieve the registrant herein of the responsibility to apply for and obtain all other permits, licenses, and/or approvals from other agencies; i.e. local, state and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or affected facility herein permitted.

## **2.10. Inspection and Entry**

- 2.10.1. The registrant shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:
  - a. At all reasonable times enter upon the registrant's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
  - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Class II General Permit;
  - c. Inspect at reasonable times (including all times in which the affected facility is in operation) any affected facilities, equipment (including monitoring and air pollution Control equipment), practices, or operations regulated or required under this Class II General Permit;
  - d. Sample or monitor at reasonable times, substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

### **2.11. Need to Halt or Reduce Activity not a Defense**

- 2.11.1. It shall not be a defense for a registrant in an enforcement action that it should have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Class II General Permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.

### **2.12. Emergency**

- 2.12.1. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under this Class II General Permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
- 2.12.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of Section 2.12.3 below are met.
- 2.12.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
- a. An emergency occurred and that the registrant can identify the cause(s) of the emergency;
  - b. The registered affected facility was at the time being properly operated;
  - c. During the period of the emergency the registrant took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in this Class II General Permit; and
  - d. The registrant submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice, report, and variance request fulfills the requirement of C. S. R. § 45-30-5.1.c.3.B. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.
- 2.12.4. In any enforcement proceeding, the registrant seeking to establish the occurrence of an emergency has the burden of proof.
- 2.12.5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.

### **2.13. Duty to Provide Information**

- 2.13.1. The registrant shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this Class II General Permit Registration or to determine compliance with this General Permit. Upon request, the registrant shall also furnish to the Secretary copies of records required to be kept by the registrant. For information claimed to be confidential, the registrant shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the registrant shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.

### **2.14. Duty to Supplement and Correct Information**

- 2.14.1. Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any registration application, the registrant shall promptly submit to the Secretary such supplemental facts or corrected information.

### **2.15. Credible Evidence**

- 2.15.1. Nothing in this Class II General Permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the registrant including but not limited to any challenge to the credible evidence rule in the context of any future proceeding.

### **2.16. Severability**

- 2.16.1. The provisions of this Class II General Permit are severable. If any provision of this Class II General Permit, or the application of any provision of this Class II General Permit to any circumstance is held invalid by a court of competent jurisdiction, the remaining Class II General Permit terms and conditions or their application to other circumstances shall remain in full force and effect.

### **2.17. Property Rights**

- 2.17.1. Registration under this Class II General Permit does not convey any property rights of any sort or any exclusive privilege.

### **2.18. Notification Requirements**

- 2.18.1. The registrant shall notify the Secretary, in writing, no later than thirty (30) calendar days after the actual startup of the operations authorized under this permit.

## 2.19. Suspension of Activities

- 2.19.1. In the event the registrant should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the affected facility authorized by this permit, the registrant shall notify the Secretary, in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period.

## 2.20. Transferability

- 2.20.1. This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13. [45CSR§13-10.1.]

## 3.0. Facility-Wide Requirements

### 3.1. Siting Criteria

- 3.1.1. All persons submitting a Class II General Permit Registration Application to construct, modify or relocate a coal preparation and processing plant and coal handling operation shall be subject to the following siting criteria:
- a. No person shall construct, locate or relocate any affected facility or emission unit within three hundred (300) feet of any occupied dwelling, business, public building, school, church, community, institutional building or public park. An owner of an occupied dwelling or business may elect to waive the three hundred (300) feet siting criteria.
  - b. Any person proposing to construct, modify or relocate a coal preparation and processing plant and coal handling operation within three (300) feet of any occupied dwelling, business, public building, school, church, community, institutional building or public park may elect to obtain an individual permit pursuant to 45CSR13.

### 3.2. Limitations and Standards

- 3.2.1. **Open burning.** The open burning of refuse by any person, firm, corporation, association or public agency is prohibited except as noted in 45CSR§6-3.1. [45CSR§6-3.1.]
- 3.2.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause, suffer, allow or permit any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible. [45CSR§6-3.2.]
- 3.2.3. **Asbestos.** The registrant is responsible for thoroughly inspecting the affected facility, or part of the affected facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The registrant, owner, or operator must notify the Secretary at least ten (10) working days prior to the

commencement of any asbestos removal on the forms prescribed by the Secretary if the registrant is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management, and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them.

**[40CFR§61.145(b) and 45CSR§34]**

- 3.2.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.

**[45CSR§4-3.1] [State Enforceable Only]**

- 3.2.5. **Permanent shutdown.** A source which has not operated at least 500 hours in one 12-month period within the previous five (5) year time period may be considered permanently shutdown, unless such source can provide to the Secretary, with reasonable specificity, information to the contrary. All permits may be modified or revoked and/or reapplication or application for new permits may be required for any source determined to be permanently shutdown.

**[45CSR§13-10.5.]**

- 3.2.6. **Standby plan for reducing emissions.** When requested by the Secretary, the registrant shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11.

**[45CSR§11-5.2.]**

### **3.3. Monitoring Requirements**

*See Section 4.2.*

### **3.4. Testing Requirements**

- 3.4.1. **Stack testing.** Where required by this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the registrant shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:

- a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63 in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4. or 45CSR§13-5.4 as applicable.

- b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4. or 45CSR§13-5.4 as applicable.
- c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the registrant shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary. **[WV Code § 22-5-4(a)(15)]**

### **3.5. Recordkeeping Requirements**

- 3.5.1. **Retention of records.** The registrant shall maintain records of all information (including monitoring data, support information, reports, and notifications) required by this permit recorded in a form suitable and readily available for expeditious inspection and review. Support information includes all calibration and maintenance records. Said records shall be maintained for a period of five (5) years on site or in a readily accessible off-site location maintained by the registrant. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official. Where appropriate, the registrant may maintain records electronically (on a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.
- 3.5.2. **Odors.** For the purposes of 45CSR4, the registrant shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken. **[45CSR§4] [State Enforceable Only]**

### 3.6. Reporting Requirements

- 3.6.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- 3.6.2. **Confidential information.** A registrant may request confidential treatment for the submission of reporting required by this permit pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.
- 3.6.3. **Correspondence.** All notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

**If to the DAQ:**

Director  
WVDEP  
Division of Air Quality  
601 57<sup>th</sup> Street  
Charleston, WV 25304-2345

**If to the US EPA:**

Associate Director  
Office of Enforcement and Permits Review  
(3AP12)  
U.S. Environmental Protection Agency  
Region III  
1650 Arch Street  
Philadelphia, PA 19103-2029

- 3.6.4. **Emission inventory.** At such time(s) as the Secretary may designate, the registrant herein shall prepare and submit an emission inventory for the previous year, addressing the emissions from the affected facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Secretary may, based upon the type and quantity of the pollutants emitted, establish a frequency other than on an annual basis.
- 3.6.5. **Operating Fee.**
- a. In accordance with 45CSR22 – Air Quality Management Fee Program, the registrant shall not operate nor cause to operate the permitted facility or other associated facilities on the same or contiguous sites comprising the plant without first obtaining and having in current effect a Certificate to Operate (CTO). Such Certificate to Operate (CTO) shall be renewed annually, shall be maintained on the premises for which the certificate has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.
  - b. In accordance with 45CSR30 – Operating Permit Program, the registrant shall submit a Certified Emissions Statement (CES) and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality. A receipt for the appropriate fee shall be maintained on the premises for which the receipt has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.

- c. For new sources, in accordance with 45CSR22 – Air Quality Management Fee Program, enclosed with this permit is an Application for a Certificate to Operate (CTO), from the date of initial startup through the following June 30. Said application and the appropriate fee shall be submitted to this office no later than 30 days prior to the date of initial startup. For any startup date other than July 1, the registrant shall pay a fee or prorated fee in accordance with Section 4.5 of 45CSR22. A copy of this schedule may be found on the reverse side of the Application for a Certificate to Operate (CTO).
  
- d. For new sources, in accordance with 45CSR30 – Operating Permit Program, enclosed with this permit is a Certified Emissions Statement (CES) Invoice, from the date of initial startup through the following June 30. Said invoice and the appropriate fee shall be submitted to this office no later than 30 days prior to the date of initial startup. For any startup date other than July 1, the registrant shall pay a fee or prorated fee in accordance with Section 4.5 of 45CSR22. A copy of this schedule may be found attached to the Certified Emissions Statement (CES) Invoice.



## 4.0. Source-Specific Requirements (Units listed in General Permit Registration)

### 4.1. Limitations and Standards

- 4.1.1. Operation and Maintenance of Air Pollution Control Equipment. The registrant shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in the issued General Permit Registration and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary. [45CSR§13-5.11.]
- 4.1.2. **Minor Source of Hazardous Air Pollutants (HAP).** HAP emissions from the affected facility shall be less than 10 tons per year of any single HAP and 25 tons per year of any combination of HAPs. Compliance with this Section shall ensure that the affected facility is a minor HAP source.

### 4.2. Recordkeeping Requirements

- 4.2.1. *Monitoring information.* The registrant shall keep records of monitoring information that include the following:
- a. The date, place as defined in this permit and time of sampling or measurements;
  - b. The date(s) analyses were performed;
  - c. The company or entity that performed the analyses;
  - d. The analytical techniques or methods used;
  - e. The results of the analyses; and
  - f. The operating conditions existing at the time of sampling or measurement.
- 4.2.2. *Record of Maintenance of Air Pollution Control Equipment.* For all pollution control equipment listed in the General Permit Registration, the registrant shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures specifically required in this permit.
- 4.2.3. *Record of Malfunctions of Air Pollution Control Equipment.* For all air pollution control equipment listed in the General Permit Registration, the registrant shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:
- a. The equipment involved.
  - b. Steps taken to minimize emissions during the event.
  - c. The duration of the event.
  - d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
- f. Steps taken to correct the malfunction.
- g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

- 4.2.4. **Minor Source of Hazardous Air Pollutants (HAP).** The registrant shall maintain records of annual HAP emissions using AP-42 emission factors, manufacturer guaranteed values, sample and/or test data, or other methods approved by DAQ demonstrating that facility-wide emissions are less than those specified in Section 4.1.2.

## **5.0. Source-Specific Requirements (Coal Preparation and Processing Plants and Coal Handling Operations)**

### **5.1. Limitations and Standards**

- 5.1.1. **Maximum Raw Coal Throughput Limitation.** The maximum hourly throughput of raw coal to be handled or processed by any registered coal preparation and processing plant or coal handling operation shall not exceed the Maximum Raw Coal Hourly Throughput Limitation recorded with the registrant's Class II General Permit registration without effecting a modification.
- 5.1.2. **Maximum Raw Coal Yearly Throughput Limitation.** The maximum yearly throughput of raw coal handled or processed by any registered coal preparation and processing plant or coal handling operation shall not exceed the Maximum Raw Coal Yearly Throughput (tons per year input) recorded with the registrant's Class II General Permit registration without effecting a modification. Compliance with the Maximum Raw Coal Yearly Throughput shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the raw coal throughput at any given time during the previous twelve consecutive calendar months.
- 5.1.3. **Limitation for Particulate Matter**
- a. The registrant shall not cause, allow or permit the emission of particulate matter from a registered coal preparation and processing plant or coal handling operation which exceeds the potential to emit (pounds per hour and tons per year) recorded with the registrant's Class II General Permit registration without effecting a modification;
  - b. The registrant shall not cause, allow or permit emission of particulate matter into the open air from any stack or operation, or from any fugitive dust control system that was constructed, reconstructed, or modified on or before April 28, 2008, which exhibits 20 percent opacity or greater; and
  - c. The registrant shall not cause, allow or permit emission of particulate matter into the open air from any stack or operation, or from any fugitive dust control system that was constructed, reconstructed, or modified after April 28, 2008, which exhibits 10 percent opacity or greater;
- 5.1.4. **Minimization of Fugitive Emissions, Methods and Required Systems**
- a. The registrant shall not cause, allow or permit a coal preparation and processing plant or coal handling operation to operate that is not equipped with a fugitive dust control system(s). Such system(s) shall be operated and maintained in such a manner as to effectively minimize the emission of particulate matter into the open air.
  - b. The registrant shall maintain fugitive dust control of the premises and owned, leased or controlled haulroads and access roads by paving, utilization of a water truck and/or other suitable measures. Good operating methods, practices and general maintenance shall be

observed in relation to stockpiling, truck, railcar or barge loading, coal grinding, breaking and screening to effectively minimize the emission of particulate matter.

- c. To maintain effective fugitive dust control of the premises and minimize the emission of particulate matter, fugitive dust generation and atmospheric entrainment of particulate matter, the registrant shall properly install, operate and maintain a fugitive dust control system(s) designed in accordance with good engineering practices and observe and employ good operating methods, practices and general maintenance. Such fugitive dust control system(s) shall be installed, equipped and operated according to the emissions control equipment and fugitive dust control system design data proposed in the submitted Registration Application. **[45CSR§5-6]**
- d. Emissions control equipment and fugitive dust control system design data proposed and submitted in a Registration Application shall follow and adhere to the following requirements for fugitive dust control systems, methods, practices and general maintenance. These control system requirements represent the minimum level of controls required of Class II General Permit registrants.
  1. Fugitive Dust Control of Premises: The registrant shall adequately maintain and operate on-site: (1) a water truck, or (2) a fixed system of water sprays, or (3) a combination of a water truck and a fixed system of water sprays to minimize the emission of particulate matter generated from access roads, haulroads, open storage piles and work areas. Any fixed water spray system shall be no less effective than a water truck in minimizing fugitive particulate emissions from the area under control. The water truck and/or fixed water spray system shall be operated at all times when fugitive particulate emissions from access roads, haulroads, open storage piles and work areas are generated as a result of vehicular traffic, operational activity or wind. All water trucks and fixed water sprays shall be equipped with a pump and spraybars to apply water or a mixture of water and an environmentally acceptable dust control additive (solution) to access roads, haulroads, open storage piles and work areas where mobile equipment is used. Spraybars shall be equipped with commercially available spray nozzles of sufficient size and number so as to provide adequate coverage to the area being treated. The pump and piping system used to deliver the water or solution shall be of sufficient size and capacity to deliver an adequate quantity of water or solution to the spray nozzles at a sufficient pressure to provide an effective spray.
  2. Haulroad Maintenance: All haulroads, access roads, open storage piles and work areas shall be kept clean and in good condition by replacing base material and/or grading as required.
  3. Vehicular Tracking: If tracking of solids by vehicular traffic from access and/or haulroads onto any public road or highway occurs and generates or has the potential to generate fugitive particulate emissions, the registrant shall properly operate and maintain an underbody truck wash, rumble strips or employ other suitable measures to maintain effective fugitive dust control of the premises and minimize the emission of particulate matter;
  4. Transfer Points: All transfer points shall at least be partially enclosed so as to effectively minimize the emission of particulate matter;

5. Crushers and Breakers: All crushers and rotary breakers shall be either: (1) fully enclosed; or (2) partially enclosed and fitted with effective water sprays to minimize the emission of particulate matter. Water sprays are not required to operate when the moisture content of processed material is adequate to ensure minimization of fugitive particulate emissions;
  6. Screens: All screens shall be either: (1) fully enclosed; or (2) partially enclosed and fitted with effective water sprays to minimize the emission of particulate matter. Water sprays are not required to operate when the moisture content of processed material is adequate to ensure minimization of fugitive particulate emissions;
  7. Load-outs: All railcar, barge and truck load-outs shall be equipped with a device and/or employ a specific operating method which minimizes drop height during load-out in order to minimize the emission of particulate matter;
  8. Open storage pile Loading: All loading of open storage piles shall: (1) be accomplished with a device and/or employ a specific operating method which minimizes drop height during load-in; or (2) utilize a stacking tube to effectively minimize the emission of particulate matter. All ports shall remain covered at all times with the exception of the discharging port to ensure minimization of fugitive particulate emissions;
  9. Dump Bins: All dump bins which are fed by conveyor, end-loader, truck or other transport device shall be fitted with a three-sided roofed enclosure and effective water sprays. Any dump bin which is fed from the top shall be fitted with a four sided enclosure, effective water sprays and shall not be required to have a roof. Water sprays are not required to operate when the moisture content of processed material is adequate to ensure minimization of fugitive particulate emissions;
  10. High-wall Truck and Conveyor Dumps: All high-wall truck and conveyor dumps with a maximum vertical elevation differential between the discharge of the dump bin and the top of the collected material below (process drop height) greater than 20 feet shall incorporate a stacking tube or full enclosure. The stacking tube or full enclosure shall be properly designed, functional and operated in such a manner to minimize drop height while in operation. All ports shall remain covered at all times with the exception of the discharging port to ensure minimization of fugitive particulate emissions; and
- e. The registrant shall properly install, operate and maintain designed winterization systems for all water trucks and/or water sprays in a manner that all such fugitive dust control systems remain effective and functional, to the maximum extent practicable, during winter months and cold weather. At all times, including periods of cold weather, the registrant shall comply with the requirements, provisions, standards and conditions of this Class II General Permit, any other permit or applicable statutory or regulatory requirement.

**5.1.5. Maintenance of Air Pollution Control Equipment.**

All air pollution control equipment, water trucks, winterizing systems, baghouses or fugitive dust control systems shall be maintained regularly in accordance with recommendations of the manufacturer. If no such recommendations are available, such equipment shall be properly maintained to ensure effective and proper operation of the equipment and/or systems.

## 5.2. Monitoring Requirements

- 5.2.1. For the purpose of determining compliance with the opacity limits for registrants that are subject to 40CFR60 Subpart Y, see applicable Monitoring Requirements in Sections 6.0, 7.0, 8.0.
- 5.2.2. For the purpose of determining compliance with the opacity limits of §45-5-3 for registrants that are not subject to 40CFR60 Subpart Y, the registrant shall conduct visible emission checks and/or opacity monitoring and recordkeeping for all emission sources subject to an opacity limit.

The visible emission check shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40CFR Part 60, Appendix A, Method 9 certification course.

Visible emission checks shall be conducted at least once per calendar week with a maximum of forty-five (45) days between consecutive readings. These checks shall be performed at each source (stack, transfer point, fugitive emission source, etc.) for a sufficient time interval, but no less than one (1) minute, to determine if any visible emissions are present. Visible emission checks shall be performed during periods of normal facility operation and appropriate weather conditions.

If visible emissions are present at a source(s) for four (4) consecutive weekly checks, the registrant shall conduct an opacity reading at that source(s) using the procedures and requirements of Method 9 as soon as practicable, but within seventy-two (72) hours of the final visual emission check. A Method 9 observation at a source(s) restarts the count of the number of consecutive readings with the presence of visible emissions.

## 5.3. Testing Requirements

- 5.3.1. See Facility-Wide Testing Requirements Section 3.4.

## 5.4. Recordkeeping Requirements

- 5.4.1. To demonstrate compliance with section 5.1.1, and 5.1.2, the registrant shall maintain records of the amount and type of raw coal throughput and the hours of operation. Said records shall be maintained on site for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.
- 5.4.2. **Record of Maintenance of Air Pollution Control Equipment.**
  - a. The registrant shall maintain maintenance records relating to failure and/or repair of air pollution control devices and fugitive dust control systems. In the event of air pollution control equipment, fugitive dust control system or system failure, these records shall document the registrant's effort to maintain proper and effective operation of such equipment and/or systems.
  - b. Air pollution control equipment maintenance records shall be retained on-site for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any

records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

- 5.4.3. For the purpose of determining compliance with the opacity limits of Section 5.2.2, for registrants that are not subject to 40CFR60 Subpart Y, the registrant shall maintain records of all monitoring data required by Section 5.2.2 documenting the date and time of each visible emission check, the emission point or equipment/source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The registrant shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6 - 10 mph NE wind) during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in METHOD 9, the data records of each observation shall be maintained per the requirements of METHOD 9. For an emission unit out of service during the normal monthly evaluation, the record of observation may note "out of service" (O/S) or equivalent.

## **5.5. Reporting Requirements**

- 5.5.1. See Facility-Wide Testing Requirements Section 3.6.
- 5.5.2. Any violation(s) of the allowable visible emission requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 OR 45CSR§5 must be reported in writing to the Director of the Division of Air Quality as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.

## **6.0. Source-Specific Requirements (Standards of Performance for Coal Preparation and Processing Plants that Commenced Construction, Reconstruction or Modification after October 27, 1974, and on or before April 28, 2008 (40CFR60 Subpart Y))**

### **6.1. Applicability and Designation of Affected Facility**

- 6.1.1. 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. [40CFR§60.250(a)]
- 6.1.2. The provisions in §60.251, §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: Coal processing and conveying equipment (including breakers and crushers), and coal storage systems, transfer and loading systems. [40CFR§60.250(b)]

### **6.2. Standards for Coal Processing and Conveying Equipment, Coal Storage Systems, Transfer and Loading Systems, and Open Storage Piles**

- 6.2.1. 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. [40CFR§60.254(a)]

### **6.3. Performance Tests and Other Compliance Requirements**

- 6.3.1. 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. [40CFR§60.255(a)]

### **6.4. Continuous Monitoring Requirements**

- 6.4.1. 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)(2) of this section, as applicable to the affected facility. [40CFR§60.256(a)]
  - 1. All monitoring devices under paragraph (a) of this section are to be recalibrated annually in accordance with procedures under §60.13(b). [40CFR§60.256(a)(2)]

### **6.5. Test Methods and Procedures**

- 6.5.1. 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.

**[40CFR§60.257(a)]**

- 6.5.2. 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<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 60-minute period) with NO<sub>x</sub> performance tests.

**[40CFR§60.257(b)]**

## **7.0. Source-Specific Requirements (Standards of Performance for Coal Preparation and Processing Plants that Commenced Construction, Reconstruction or Modification after April 28, 2008, and on or before May 27, 2009 (40CFR60 Subpart Y))**

### **7.1. Applicability and Designation of Affected Facility**

- 7.1.1. 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. [40CFR§60.250(a)]
- 7.1.2. The provisions in §60.251, §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: Coal processing and conveying equipment (including breakers and crushers), and coal storage systems, transfer and loading systems. [40CFR§60.250(c)]

### **7.2. Standards for Coal Processing and Conveying Equipment, Coal Storage Systems, Transfer and Loading Systems, and Open Storage Piles**

- 7.2.1. 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. [40CFR§60.254(b)]

### **7.3. Performance Tests and Other Compliance Requirements**

- 7.3.1. 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. Thereafter, a new performance test must be conducted according to 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.

**[40CFR§60.255(b)]**

- 7.3.2. 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.

**[40CFR§60.255(c)]**

- 7.3.3. 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.

**[40CFR§60.255(d)]**

- 7.3.4. 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.

**[40CFR§60.255(e)]**

- 7.3.5. 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. **[40CFR§60.255(f)]**

7.3.6. 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.

**[40CFR§60.255(g)]**

7.3.7. 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.

**[40CFR§60.255(h)]**

**7.4. Continuous Monitoring Requirements**

- 7.4.1. 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  $\pm 1$  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  $\pm 5$  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  $\pm 5$  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  $\pm 5$  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.

**[40CFR§60.256(b)]**

- 7.4.2. 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.

[40CFR§60.256(c)]

## 7.5. Test Methods and Procedures

- 7.5.1. 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.

**[40CFR§60.257(a)]**

- 7.5.2. 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<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 60-minute period) with NO<sub>x</sub> performance tests.

**[40CFR§60.257(b)]**

**7.6. Reporting and Recordkeeping**

- 7.6.1. 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.  
**[40CFR§60.258(a)]**
- 7.6.2. 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.  
**[40CFR§60.258(b)]**
- 7.6.3. 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.  
**[40CFR§60.258(c)]**
- 7.6.4. 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.  
**[40CFR§60.258(d)]**

## **8.0. Source-Specific Requirements (Standards of Performance for Coal Preparation and Processing Plants that Commenced Construction, Reconstruction or Modification after May 27, 2009 (40CFR60 Subpart Y))**

### **8.1. Applicability and Designation of Affected Facility**

- 8.1.1. 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.
- 8.1.2. The provisions in §60.251, §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: Coal processing and conveying equipment (including breakers and crushers), coal storage systems, transfer and loading systems, and open storage piles. [40CFR§60.250(d)]

### **8.2. Standards for Coal Processing and Conveying Equipment, Coal Storage Systems, Transfer and Loading Systems, and Open Storage Piles**

- 8.2.1. 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.

#### **[40CFR§60.254(b)]**

- 8.2.2. 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.

[40CFR§60.254(c)]

### 8.3. Performance Tests and Other Compliance Requirements

- 8.3.1. 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. Thereafter, a new performance test must be conducted according to 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.

**[40CFR§60.255(b)]**

- 8.3.2. 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.

**[40CFR§60.255(c)]**

- 8.3.3. 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.

**[40CFR§60.255(d)]**

- 8.3.4. 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.

**[40CFR§60.255(e)]**

- 8.3.5. 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.

**[40CFR§60.255(f)]**

- 8.3.6. 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.

**[40CFR§60.255(g)]**

8.3.7. 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.

**[40CFR§60.255(h)]**

#### 8.4. Continuous Monitoring Requirements

- 8.4.1. 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  $\pm 1$  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  $\pm 5$  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  $\pm 5$  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  $\pm 5$  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.

**[40CFR§60.256(b)]**

- 8.4.2. 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.
- [40CFR§60.256(c)]

## 8.5. Test Methods and Procedures

- 8.5.1. 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.

[40CFR§60.257(a)]

- 8.5.2. 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<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 60-minute period) with NO<sub>x</sub> performance tests.

**[40CFR§60.257(b)]**

## 8.6. Reporting and Recordkeeping

- 8.6.1. 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.

**[40CFR§60.258(a)]**

- 8.6.2. 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.  
**[40CFR§60.258(b)]**
- 8.6.3. 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.  
**[40CFR§60.258(c)]**
- 8.6.4. 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.  
**[40CFR§60.258(d)]**

## 9.0. Source-Specific Requirements (Reciprocating Internal Combustion Engines)

### 9.1. Limitations and Standards

- 9.1.1. The reciprocating internal combustion engines listed in the General Permit Registration application shall be operated and maintained in accordance with the manufacturer's recommendations and specifications and in a manner consistent with good operating practices.
- 9.1.2. Regulated Pollutant Limitation. The registrant shall not cause, suffer, allow or permit emissions of PM, PM<sub>10</sub>, VOC, SO<sub>2</sub>, NO<sub>x</sub>, CO, and formaldehyde, from any registered reciprocating internal combustion engine to exceed the potential to emit (pounds per hour and tons per year) listed in the General Permit Registration.
- 9.1.3. Maximum Fuel Consumption Limitation. The maximum fuel consumption for any registered reciprocating internal combustion engine listed in the General Permit Registration application shall not exceed the fuel consumption recorded with registrant's Class II General Permit Registration Application without effecting a modification or administrative update. Compliance with the Maximum Yearly Fuel Consumption Limitation shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the fuel consumption at any given time during the previous twelve consecutive calendar months.
- 9.1.4. Requirements for Use of Catalytic Reduction Devices
- a. Rich-burn natural gas compressor engines equipped with non-selective catalytic reduction (NSCR) air pollution control devices shall be fitted with a closed-loop, automatic air/fuel ratio controller to ensure emissions of regulated pollutants do not exceed the potential to emit for any engine/NSCR combination under varying load. The closed-loop, automatic air/fuel ratio controller shall control a fuel metering valve to deliver additional fuel when required to ensure a fuel-rich mixture and a resultant exhaust oxygen content of less than or equal to 0.5%. The automatic air/fuel ratio controller shall also incorporate dual-point exhaust gas temperature and oxygen sensors which provide temperature and exhaust oxygen content differential feedback. Such controls shall ensure proper and efficient operation of the engine and NSCR air pollution control device;
  - b. Lean-burn natural gas compressor engines equipped with selective catalytic reduction (SCR) air pollution control devices shall be fitted with a closed-loop automatic feedback controller to ensure emissions of regulated pollutants do not exceed the potential to emit for any engine/SCR combination under varying load. The closed-loop automatic feedback controller shall provide proper and efficient operation of the engine, ammonia injection and SCR device, monitor emission levels downstream of the catalyst element and limit ammonia slip to less than 10 ppm<sub>v</sub>;
  - c. The automatic air/fuel ratio controller or closed-loop automatic feedback controller shall provide a warning or indication to the operator and/or be interlocked with the engine ignition system to cease engine operation in case of a masking, poisoning or overrich air/fuel ratio situation which results in performance degradation or failure of the catalyst element; and
  - d. No person shall knowingly:
    1. Remove or render inoperative any air pollution or auxiliary air pollution control device installed subject to the requirements of General Permit G10-D;
    2. Install any part or component when the principal effect of the part or component is to bypass, defeat or render inoperative any air pollution control device or auxiliary air pollution control device installed subject to the requirements of General Permit G10-D;  
or
    3. Cause or allow engine exhaust gases to bypass any catalytic reduction device.



- 9.1.5. Unless otherwise stated WVDEP DAQ did not determine whether the registrant is subject to an area source air toxics standard requiring Generally Achievable Control Technology (GACT) promulgated after January 1, 2007 pursuant to 40 CFR 63, including the area source air toxics provisions of 40 CFR 63, Subpart ZZZZ.

## **9.2. Monitoring Requirements**

- 9.2.1. Catalytic Oxidizer Control Devices
- a. The registrant shall regularly inspect, properly maintain and/or replace catalytic reduction devices and auxiliary air pollution control devices to ensure functional and effective operation of the engine's physical and operational design. The registrant shall ensure proper operation, maintenance and performance of catalytic reduction devices and auxiliary air pollution control devices by:
1. Maintaining proper operation of the automatic air/fuel ratio controller or automatic feedback controller.
  2. Following operating and maintenance recommendations of the catalyst element manufacturer.

## **9.3. Testing Requirements**

- 9.3.1. See Facility-Wide Testing Requirements Section 3.4.

## **9.4. Recordkeeping Requirements**

- 9.4.1. To demonstrate compliance with section 9.1.1, 9.1.2, and 9.1.3, the registrant shall maintain records of the amount and type of fuel consumed in each engine and the hours of operation of each engine. Said records shall be maintained on site by the registrant for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

## **9.5. Reporting Requirements**

- 9.5.1. See Facility-Wide Reporting Requirements Section 3.6.

## **10.0. Source-Specific Requirements (Tanks)**

### **10.1. Limitations and Standards**

- 10.1.1. All tanks in the General Permit Registration application will be listed in Section 1.0 (the equipment table) of the issued registration. Tanks that are less than 20,000 gallons should not, as a general rule, have permitted emission limits. Section 1.0 of the issued registration will identify the size of the tank, any controls (such as a floating roof), and may include for tanks of 10,000 gallons or more the expected throughput or turnovers. Depending on the situation, setting a specific permit condition for maximum throughput, turnovers, or a vapor pressure for the tank is acceptable. Such situations would include tanks storing TAPs or HAPs, that are not subject to Rule 27 or a MACT but may be close to the thresholds for these rules. For a source subject to Rule 27 or a MACT storing the pollutant subject to the MACT or Rule 27 it may be appropriate to have emission limits for the regulated pollutant and the appropriate MRR to show compliance.
- 10.1.2. Maximum Tank Throughput Limitation. For tanks subject to the maximum tank throughput limits, the maximum tank throughput for these tanks shall not exceed the throughput recorded with registrant's Class II General Permit Registration without effecting a modification or administrative update. Compliance with the Maximum Yearly Tank Throughput Limitation shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the tank throughput at any given time during the previous twelve consecutive calendar months.
- 10.1.3. Regulated Pollutant Limitation. The registrant shall not cause, suffer, allow or permit emissions of VOC and aggregate emissions of hazardous air pollutants (HAPs), from any tank listed in the General Permit Registration to exceed the potential to emit (pounds per hour and tons per year) recorded with the registrant's Class II General Permit Registration Application.

### **10.2. Monitoring Requirements**

- 10.2.1. See Facility-Wide Monitoring Requirements.

### **10.3. Testing Requirements**

- 10.3.1. See Facility-Wide Testing Requirements.

### **10.4. Recordkeeping Requirements**

- 10.4.1. The registrant shall maintain a record of the tank throughput for tanks with maximum throughput limits, to demonstrate compliance with section 10.1.2 of this permit. Said records shall be maintained on site or in a readily accessible off-site location maintained by the registrant for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

### **10.5. Reporting Requirements**

- 10.5.1. See Facility-Wide Reporting Requirements.

## 11.0 Source-Specific Requirements (Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40CFR60 Subpart III))

### 11.1. Limitations and Standards

11.1.1. **Maximum Yearly Operation Limitation.** The maximum yearly hours of operation for any emergency generator listed in the General Permit Registration application shall not exceed 500 hours per year. Compliance with the Maximum Yearly Operation Limitation shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the hours of operation at any given time during the previous twelve consecutive calendar months.

11.1.2. **Regulated Pollutant Limitation**

The registrant shall not cause, suffer, allow or permit emissions of PM, PM<sub>10</sub>, VOC, SO<sub>2</sub>, NO<sub>x</sub>, CO, and aggregate emissions of hazardous air pollutants (HAPs), from any emergency generator listed in the General Permit Registration to exceed the potential to emit (pounds per hour and tons per year) recorded with the registrant's Class II General Permit Registration Application.

11.1.3. **Recycled or Used Oil**

a. The registrant shall not receive, store, burn or fire any recycled or used oil in the emergency generator registered herein which is considered a hazardous waste or does not meet the used oil specifications below (40 C.F.R. 279.11, Table 1). The burning of used or recycled oil which does not meet these specifications shall constitute a violation of 45CSR25, 33CSR20 and the requirements, provisions, standards and conditions of this Class II General Permit.

Constituent or Property	Maximum Allowable Specification
Arsenic	5.0 ppm
Cadmium	2.0 ppm
Chromium	10.0 ppm
Lead	100.0 ppm
PCBs	2.0 ppm
Total Halogen	4000.0 ppm maximum
Mercury	0.20 ppm
Flash Point	100.0°F minimum

b. Recycled or used oil with a Total Halogen content greater than 1000.0 ppm is presumed to be a hazardous waste under the rebuttable presumption provided in 40 C.F.R. 279.10(b)(1)(ii). Therefore, the registrant may receive, store and burn recycled or used oil exceeding 1000.0 ppm Total Halogen (but less than 4000.0 ppm maximum) only if the supplier or marketer has demonstrated that the recycled or used oil is not and does not contain hazardous waste.

11.1.4. **Storage Tanks**

a. The content, dimensions, and an analysis showing the capacity of all storage tanks shall be recorded on the Emergency generator Storage Tank Data Sheet in the registrant's Class II General Permit registration;

- b. Petroleum liquid storage tank volume shall not exceed 151 m<sup>3</sup> (or 39,889 gallons) capacity and maximum true vapor pressure shall not exceed 15.0 kPa (2.17 psia) for petroleum liquid storage tanks greater than 75 m<sup>3</sup> (19,812 gallon) capacity; and
- c. The registrant shall inform the Secretary of any change in the number of storage tanks or capacities. The registrant may exchange storage tanks of similar volume as required.

**11.1.5. Emission Standards**

Owners and operators of pre-2007 model year emergency stationary CI (compression ignition) ICE (internal combustion engines) with a displacement of less than 10 liters per cylinder that are not fire pump engines must comply with the emission standards in table 1 to this subpart. [40CFR§60.4205a]

**11.1.6. Emission Standards**

Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in §60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE. [40CFR§60.4205b]

**11.1.7. Emission Standards**

Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in table 4 to this subpart, for all pollutants. [40CFR§60.4205c]

**11.1.8. Emission Standards**

Owners and operators of emergency stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must meet the requirements in paragraphs (d)(1) and (2) of this section. [40CFR§60.4205 d]

(1) Reduce NOX emissions by 90 percent or more, or limit the emissions of NOX in the stationary CI internal combustion engine exhaust to 1.6 grams per KW-hour (1.2 grams per HP-hour). [40CFR§60.4205d(1)]

(2) Reduce PM emissions by 60 percent or more, or limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.15 g/KW-hr (0.11 g/HP-hr). [40CFR§60.4205d(2)]

- 11.1.9. Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §60.4204 and §60.4205 according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine. [40CFR§60.4206]

**11.1.10. Fuel Requirements**

Beginning October 1, 2007, owners and operators of stationary CI ICE subject to this subpart that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(a). [40CFR§60.4207a]

**11.1.11. Fuel Requirements**

Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel. [40CFR§60.4207b]

**11.1.12. Fuel Requirements**

Owners and operators of pre-2011 model year stationary CI ICE subject to this subpart may petition the Administrator for approval to use remaining non-compliant fuel that does not meet the fuel requirements of paragraphs (a) and (b) of this section beyond the dates required for the

purpose of using up existing fuel inventories. If approved, the petition will be valid for a period of up to 6 months. If additional time is needed, the owner or operator is required to submit a new petition to the Administrator. [40CFR§60.4207c]

**11.1.13. Fuel Requirements**

Stationary CI ICE that have a national security exemption under §60.4200(d) are also exempt from the fuel requirements in this section. [40CFR§60.4207e]

11.1.14. After December 31, 2008, owners and operators may not install stationary CI ICE (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines. [40CFR§60.4208a]

11.1.15. After December 31, 2009, owners and operators may not install stationary CI ICE with a maximum engine power of less than 19 KW (25 HP) (excluding fire pump engines) that do not meet the applicable requirements for 2008 model year engines. [40CFR§60.4208b]

11.1.16. In addition to the requirements specified in §§60.4201, 60.4202, 60.4204, and 60.4205, it is prohibited to import stationary CI ICE with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements specified in paragraphs (a) through (f) of this section after the dates specified in paragraphs (a) through (f) of this section. [40CFR§60.4208g]

11.1.17. The requirements of this section do not apply to owners or operators of stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location. [40CFR§60.4208h]

11.1.18. If you are an owner or operator, you must meet the monitoring requirements of this section. In addition, you must also meet the monitoring requirements specified in §60.4211. [40CFR§60.4209]

11.1.19. If you are an owner or operator of an emergency stationary CI internal combustion engine, you must install a non-resettable hour meter prior to startup of the engine. [40CFR§60.4209a]

11.1.20. If you are an owner or operator of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in §60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached. [40CFR§60.4209b]

11.1.21. If you are an owner or operator and must comply with the emission standards specified in this subpart, you must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. In addition, owners and operators may only change those settings that are permitted by the manufacturer. You must also meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you. [40CFR§60.4211a]

11.1.22. If you are an owner or operator of a pre-2007 model year stationary CI internal combustion engine and must comply with the emission standards specified in §§60.4204(a) or 60.4205(a), or if you are an owner or operator of a CI fire pump engine that is manufactured prior to the model years in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) through (5) of this section. [40CFR§60.4211b]

(1) Purchasing an engine certified according to 40 CFR part 89 or 40 CFR part 94, as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications. [40CFR§60.4211b1]

- (2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly. [40CFR§60.4211b2]
  - (3) Keeping records of engine manufacturer data indicating compliance with the standards.[40CFR§60.4211b3]
  - (4) Keeping records of control device vendor data indicating compliance with the standards.[40CFR§60.4211b4]
  - (5) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in §60.4212, as applicable. [40CFR§60.4211b5]
- 11.1.23. If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(b) or §60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must comply by purchasing an engine certified to the emission standards in §60.4204(b), or §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's specifications. [40CFR§60.4211c]
- 11.1.24. If you are an owner or operator and must comply with the emission standards specified in §60.4204(c) or §60.4205(d), you must demonstrate compliance according to the requirements specified in paragraphs (d)(1) through (3) of this section. [40CFR§60.4211d]
- (1) Conducting an initial performance test to demonstrate initial compliance with the emission standards as specified in §60.4213. [40CFR§60.4211d1]
  - (2) Establishing operating parameters to be monitored continuously to ensure the stationary internal combustion engine continues to meet the emission standards. The owner or operator must petition the Administrator for approval of operating parameters to be monitored continuously. The petition must include the information described in paragraphs (d)(2)(I) through (v) of this section. [40CFR§60.4211d2]
    - (i) Identification of the specific parameters you propose to monitor continuously; [40CFR§60.4211d2(I)]
    - (ii) A discussion of the relationship between these parameters and NOX and PM emissions, identifying how the emissions of these pollutants change with changes in these parameters, and how limitations on these parameters will serve to limit NOX and PM emissions; [40CFR§60.4211d2(ii)]
    - (iii) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations; [40CFR§60.4211d2(iii)]
    - (iv) A discussion identifying the methods and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and [40CFR§60.4211d2(iv)]
    - (v) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters. [40CFR§60.4211d2(v)]

11.1.25. Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. Anyone may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. For owners and operators of emergency engines meeting standards under §60.4205 but not §60.4204, any operation other than emergency operation, and maintenance and testing as permitted in this section, is prohibited. [40CFR§60.4211e]

## **11.2. Testing Requirements**

At the time a registered emergency generator is in compliance with an applicable emission standard and at reasonable times to be determined by the Secretary thereafter, appropriate tests consisting of visual determinations or conventional in-stack measurements or such other tests as the Secretary may specify shall be conducted to determine such compliance. The registrant may also be required by the Secretary to collect, report and maintain additional data on the operation and compliance of any registered emergency generator.

### **11.2.1. Stack Testing**

For cause, the Secretary may request the registrant to install such stack gas monitoring devices as the Secretary deems necessary to determine continuing compliance. The data from such devices shall be readily available for review on-site or such other reasonable location that the Secretary may specify. At the request of the Secretary, such data shall be made available for inspection or copying and the Secretary may require periodic submission of excess emission reports (45CSR13).

### **11.2.2. Notification of Compliance Testing**

For any compliance test to be conducted by the registrant as set forth in this section, a test protocol shall be submitted to the Secretary at least thirty (30) calendar days prior to the scheduled date of the test. Such compliance test protocol shall be subject to approval by the Secretary. The registrant shall notify the Secretary at least fifteen (15) calendar days in advance of actual compliance test dates and times during which the test (or tests) will be conducted.

### **11.2.3. Alternative Test Methods**

The Secretary may require a different test method or approve an alternative method in light of any technology advancements that may occur and may conduct such other tests as may be deemed necessary to evaluate air pollution emissions.

11.2.4. Owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests pursuant to this subpart must do so according to paragraphs (a) through (d) of this section. [40CFR§60.4212]

- a. The performance test must be conducted according to the in-use testing procedures in 40 CFR part 1039, subpart F. [40CFR§60.4212a]
- b. Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1039 must not exceed the not-to-exceed (NTE) standards for the same model year and maximum engine power as required in 40 CFR 1039.101(e) and 40 CFR 1039.102(g)(1), except as specified in 40 CFR 1039.104(d). This requirement starts when NTE requirements take effect for nonroad diesel engines under 40 CFR part 1039. [40CFR§60.4212b]
- c. Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8, as applicable, must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable

standard in 40 CFR 89.112 or 40 CFR 94.8, as applicable, determined from the following equation:

NTE Requirement for each pollutant -  $(1.25) \times (\text{STD})$

Where:

STD = The standard specified for that pollutant in 40 CFR 89.112 or 40 CFR 94.8, as applicable.

Alternatively, stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8 may follow the testing procedures specified in §60.4213 of this subpart, as appropriate. [40CFR§60.4212c]

- d. Exhaust emissions from stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in §60.4204(a), §60.4205(a), or §60.4205(c), determined from the equation in paragraph (c) of this section.

Where:

STD = The standard specified for that pollutant in §60.4204(a), §60.4205(a), or §60.4205(c).

Alternatively, stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) may follow the testing procedures specified in §60.4213, as appropriate. [40CFR§60.4212d]

11. 2.5. Owners and operators of stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must conduct performance tests according to paragraphs (a) through (d) of this section. [40CFR§60.4213]

- a. Each performance test must be conducted according to the requirements in §60.8 and under the specific conditions that this subpart specifies in table 7. The test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load. [40CFR§60.4213a]
- b. You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c). [40CFR§60.4213b]
- c. You must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must last at least 1 hour. [40CFR§60.4213c]
- d. To determine compliance with the percent reduction requirement, you must follow the requirements as specified in paragraphs (d)(1) through (3) of this section. [40CFR§60.4213d]
  1. You must use Equation 2 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \quad (\text{Eq. 2})$$

Where:

C<sub>i</sub> = concentration of NOX or PM at the control device inlet,



$C_o$  = concentration of NOX or PM at the control device outlet, and  
 $R$  = percent reduction of NOX or PM emissions.

2. You must normalize the NOX or PM concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen (O<sub>2</sub>) using Equation 3 of this section, or an equivalent percent carbon dioxide (CO<sub>2</sub>) using the procedures described in paragraph (d)(3) of this section.

Where:

$$C_{adj} = C_d \frac{5.9}{20.9 - \% O_2} \quad (\text{Eq. 3})$$

$C_{adj}$  = Calculated NOX or PM concentration adjusted to 15 percent O<sub>2</sub>.  
 $C_d$  = Measured concentration of NOX or PM, uncorrected.  
5.9 = 20.9 percent O<sub>2</sub> - 15 percent O<sub>2</sub>, the defined O<sub>2</sub> correction value, percent.  
%O<sub>2</sub> = Measured O<sub>2</sub> concentration, dry basis, percent.

3. If pollutant concentrations are to be corrected to 15 percent O<sub>2</sub> and CO<sub>2</sub> concentration is measured in lieu of O<sub>2</sub> concentration measurement, a CO<sub>2</sub> correction factor is needed. Calculate the CO<sub>2</sub> correction factor as described in paragraphs (d)(3)(I) through (iii) of this section.

(i) Calculate the fuel-specific  $F_o$  value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

$$F_o = \frac{0.209 F_d}{F_c} \quad (\text{Eq. 4})$$

Where:

$F_o$  = Fuel factor based on the ratio of O<sub>2</sub> volume to the ultimate CO<sub>2</sub> volume produced by the fuel at zero percent excess air.  
0.209 = Fraction of air that is O<sub>2</sub>, percent/100.  
 $F_d$  = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm<sup>3</sup>/J (dscf/10<sup>6</sup> Btu).  
 $F_c$  = Ratio of the volume of CO<sub>2</sub> produced to the gross calorific value of the fuel from Method 19, dsm<sup>3</sup>/J (dscf/10<sup>6</sup> Btu).

(ii) Calculate the CO<sub>2</sub> correction factor for correcting measurement data to 15 percent O<sub>2</sub>, as follows:

$$X_{CO_2} = \frac{5.9}{F_o} \quad (\text{Eq. 5})$$

Where:

$X_{CO_2}$  = CO<sub>2</sub> correction factor, percent.  
5.9 = 20.9 percent O<sub>2</sub> - 15 percent O<sub>2</sub>, the defined O<sub>2</sub> correction value, percent.

(iii) Calculate the NOX and PM gas concentrations adjusted to 15 percent O<sub>2</sub> using CO<sub>2</sub> as follows:

$$C_{adj} = C_d \frac{X_{CO_2}}{\%CO_2} \quad (\text{Eq. 6})$$

Where:

C<sub>adj</sub> = Calculated NOX or PM concentration adjusted to 15 percent O<sub>2</sub>.

C<sub>d</sub> = Measured concentration of NOX or PM, uncorrected.

%CO<sub>2</sub> = Measured CO<sub>2</sub> concentration, dry basis, percent.

- 11.2.6. To determine compliance with the NOX mass per unit output emission limitation, convert the concentration of NOX in the engine exhaust using Equation 7 of this section: [40CFR§60.4213e]

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{KW\text{-hour}} \quad (\text{Eq. 7})$$

Where:

ER = Emission rate in grams per KW-hour.

C<sub>d</sub> = Measured NOX concentration in ppm.

1.912x10<sup>-3</sup> = Conversion constant for ppm NOX to grams per standard cubic meter at 25 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Brake work of the engine, in KW-hour.

- 11.2.7. To determine compliance with the PM mass per unit output emission limitation, convert the concentration of PM in the engine exhaust using Equation 8 of this section:

$$ER = \frac{C_{adj} \times Q \times T}{KW\text{-hour}} \quad (\text{Eq. 8})$$

Where:

ER = Emission rate in grams per KW-hour.

C<sub>adj</sub> = Calculated PM concentration in grams per standard cubic meter.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Energy output of the engine, in KW.

### 11.3. Recordkeeping and Reporting Requirements

#### 11.3.1. Records, Operation and Compliance

- a. For the purpose of determining compliance with the Maximum Yearly Operation Limitation in 11.1.1, a person designated by a Responsible Official or Authorized Representative shall maintain records of hours of operation.
- b. For the purpose of determining compliance with the Fuel Type Limitation, a person designated by a Responsible Official or Authorized Representative shall maintain records of quantity and type of fuel burned.
- c. For the purpose of determining compliance with the Regulated Pollutant Limitation for SO<sub>2</sub>, a person designated by a Responsible Official or Authorized Representative shall maintain

records of the maximum sulfur content on a per-shipment basis for fuel oil, recycled or used oil or annual certification of the sulfur content from the supplier for pipeline quality natural gas.

- d. Said records shall be maintained for a period of five (5) years on site by the registrant. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

**11.3.2. Monitoring Information**

The registrant shall keep the following records of monitoring information:

- a. The date, place as defined in this Class II General Permit and time of sampling measurements;
- b. The date(s) analyses were performed;
- c. The company or entity that performed the analyses;
- d. The analytical techniques or methods used;
- e. The results of the analyses; and
- f. The operating conditions existing at the time of sampling or measurement.

**11.3.3. Equipment Maintenance Records**

- a. The registrant shall maintain maintenance records relating to failure and/or repair of emergency generator equipment. In the event of equipment or system failure, these records shall document the registrant's effort to maintain proper and effective operation of such equipment and/or systems;
- b. Said records shall be maintained for a period of five (5) years on site by the registrant. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

**11.3.4. Retention of Records**

Said records shall be maintained for a period of five (5) years on site by the registrant. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

**11.3.5. Compliance Testing**

The owner or operator of any emergency generator shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in Section

**11.3.6. Certification of Information**

Any application form, report, or compliance certification required by this General Permit to be submitted to the Division of Air Quality and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

- 11.3.7. If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time. [40CFR§60.4214b]

- 11.3.8. If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached. [40CFR§60.4214c]

## **12.0. Source-Specific Requirements (Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (40CFR60 Subpart JJJJ))**

### **12.1. Limitations and Standards**

- 12.1.1. **Maximum Yearly Operation Limitation.** The maximum yearly hours of operation for any emergency generator listed in the General Permit Registration application shall not exceed 500 hours per year. Compliance with the Maximum Yearly Operation Limitation shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the hours of operation at any given time during the previous twelve consecutive calendar months.
- 12.1.2. **Regulated Pollutant Limitation**  
The registrant shall not cause, suffer, allow or permit emissions of PM, PM<sub>10</sub>, VOC, SO<sub>2</sub>, NO<sub>x</sub>, CO, and aggregate emissions of hazardous air pollutants (HAPs), from any emergency generator listed in the General Permit Registration to exceed the potential to emit (pounds per hour and tons per year) recorded with the registrant's Class II General Permit Registration Application.
- 12.1.3. The provisions of this subpart are applicable to owners, and operators of stationary spark ignition (SI) internal combustion engines (ICE) as specified below. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.
- a. Owners and operators of stationary SI ICE that commence construction after June 12, 2006, where the stationary SI ICE are manufactured:
1. On or after July 1, 2007, for engines with a maximum engine power greater than or equal to 500 HP (except lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP);
  2. on or after January 1, 2008, for lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP;
  3. on or after July 1, 2008, for engines with a maximum engine power less than 500 HP; or
  4. on or after January 1, 2009, for emergency engines with a maximum engine power greater than 19 KW (25 HP).
- b. Owners and operators of stationary SI ICE that commence modification or reconstruction after June 12, 2006. [40CFR§60.4230(a)]
- 12.1.4. The provisions of this subpart are not applicable to stationary SI ICE being tested at an engine test cell/stand. [40CFR§60.4230(b)]
- 12.1.5. If you are an owner or operator of an area source subject to this subpart, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart as applicable. [40CFR§60.4230(c)]
- 12.1.6. For the purposes of this subpart, stationary SI ICE using alcohol-based fuels are considered gasoline engines. [40CFR§60.4230(d)]

- 12.1.7. Stationary SI ICE may be eligible for exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C (or the exemptions described in 40 CFR parts 90 and 1048, for engines that would need to be certified to standards in those parts), except that owners and operators, as well as manufacturers, may be eligible to request an exemption for national security. [40CFR§60.4230(e)]
- 12.1.8. Owners and operators of facilities with internal combustion engines that are acting as temporary replacement units and that are located at a stationary source for less than 1 year and that have been properly certified as meeting the standards that would be applicable to such engine under the appropriate nonroad engine provisions, are not required to meet any other provisions under this subpart with regard to such engines. [40CFR§60.4230(f)]

## **12.2. Emission Standards for Owners and Operators**

- 12.2.1. Owners and operators of stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP) manufactured on or after July 1, 2008, must comply with the emission standards in §60.4231(a) for their stationary SI ICE. [40CFR§60.4233(a)]
- 12.2.2. Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) manufactured on or after the applicable date in §60.4230(a)(4) that use gasoline must comply with the emission standards in §60.4231(b) for their stationary SI ICE. [40CFR§60.4233(b)]
- 12.2.3. Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) manufactured on or after the applicable date in §60.4230(a)(4) that are rich burn engines that use LPG must comply with the emission standards in §60.4231(c) for their stationary SI ICE. [40CFR§60.4233(c)]
- 12.2.4. Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards for field testing in 40 CFR 1048.101(c) for their non-emergency stationary SI ICE and with the emission standards in Table 1 to this subpart for their emergency stationary SI ICE. Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) manufactured prior to January 1, 2011, that were certified to the standards in Table 1 to this subpart applicable to engines with a maximum engine power greater than or equal to 100 HP and less than 500 HP, may optionally choose to meet those standards. [40CFR§60.4233(d)]
- 12.2.5. Owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards in Table 1 to this subpart for their stationary SI ICE. For owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 100 HP (except gasoline and rich burn engines that use LPG) manufactured prior to January 1, 2011 that were certified to the certification emission standards in 40 CFR part 1048 applicable to engines that are not severe duty engines, if such stationary SI ICE was certified to a carbon monoxide (CO) standard above the standard in Table 1 to this subpart, then the owners and operators may meet the CO certification (not field testing) standard for which the engine was certified. [40CFR§60.4233(e)]
- 12.2.6. Owners and operators of any modified or reconstructed stationary SI ICE subject to this subpart must meet the requirements as specified in paragraphs (f)(1) through (5) of this section. [40CFR§60.4233(f)]
  - a. Owners and operators of stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP), that are modified or reconstructed after June 12, 2006, must comply with the same emission standards as those specified in paragraph (a) of this section.

- b. Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that use gasoline engines, that are modified or reconstructed after June 12, 2006, must comply with the same emission standards as those specified in paragraph (b) of this section.
  - c. Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that are rich burn engines that use LPG, that are modified or reconstructed after June 12, 2006, must comply with the same emission standards as those specified in paragraph (c) of this section.
  - d. Owners and operators of stationary SI natural gas and lean burn LPG engines with a maximum engine power greater than 19 KW (25 HP), that are modified or reconstructed after June 12, 2006, must comply with the same emission standards as those specified in paragraph (d) or (e) of this section, except that such owners and operators of non-emergency engines and emergency engines greater than or equal to 130 HP must meet a nitrogen oxides (NO<sub>x</sub>) emission standard of 3.0 grams per HP-hour (g/HP-hr), a CO emission standard of 4.0 g/HP-hr (5.0 g/HP-hr for non-emergency engines less than 100 HP), and a volatile organic compounds (VOC) emission standard of 1.0 g/HP-hr, or a NO<sub>x</sub> emission standard of 250 ppmvd at 15 percent oxygen (O<sub>2</sub>), a CO emission standard 540 ppmvd at 15 percent O<sub>2</sub> for non-emergency engines less than 100 HP), and a VOC emission standard of 86 ppmvd at 15 percent O<sub>2</sub>, where the date of manufacture of the engine is:
    - 1. Prior to July 1, 2007, for non-emergency engines with a maximum engine power greater than or equal to 500 HP.
    - 2. Prior to July 1, 2008, for non-emergency engines with a maximum engine power less than 500 HP.
    - 3. Prior to January 1, 2009, for emergency engines.
  - e. Owners and operators of stationary SI landfill/digester gas ICE engines with a maximum engine power greater than 19 KW (25 HP), that are modified or reconstructed after June 12, 2006, must comply with the same emission standards as those specified in paragraph (e) of this section for stationary landfill/digester gas engines.  
[40CFR§60.4233f]
- 12.2.7. Owners and operators of stationary SI wellhead gas ICE engines may petition the Administrator for approval on a case-by-case basis to meet emission standards no less stringent than the emission standards that apply to stationary emergency SI engines greater than 25 HP and less than 130 HP due to the presence of high sulfur levels in the fuel, as specified in Table 1 to this subpart. The request must, at a minimum, demonstrate that the fuel has high sulfur levels that prevent the use of after treatment controls and also that the owner has reasonably made all attempts possible to obtain an engine that will meet the standards without the use of after treatment controls. The petition must request the most stringent standards reasonably applicable to the engine using the fuel. [40CFR§60.4233(g)]
- 12.2.8. Owners and operators of stationary SI ICE that are required to meet standards that reference 40 CFR 1048.101 must, if testing their engines in use, meet the standards in that section applicable to field testing, except as indicated in paragraph (e) of this section. [40CFR§60.4233(h)]
- 12.2.9. Owners and operators of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in §60.4233 over the entire life of the engine. [40CFR§60.4234]

### **12.3. Other Requirements for Owners and Operators**

- 12.3.1. Owners and operators of stationary SI ICE subject to this subpart that use gasoline must use gasoline that meets the per gallon sulfur limit in 40 CFR 80.195. [40CFR§60.4235]
- 12.3.2. After July 1, 2010, owners and operators may not install stationary SI ICE with a maximum engine power of less than 500 HP that do not meet the applicable requirements in §60.4233. [40CFR§60.4236(a)]
- 12.3.3. After July 1, 2009, owners and operators may not install stationary SI ICE with a maximum engine power of greater than or equal to 500 HP that do not meet the applicable requirements in §60.4233, except that lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP that do not meet the applicable requirements in §60.4233 may not be installed after January 1, 2010. [40CFR§60.4236(b)]
- 12.3.4. For emergency stationary SI ICE with a maximum engine power of greater than 19 KW (25 HP), owners and operators may not install engines that do not meet the applicable requirements in §60.4233 after January 1, 2011. [40CFR§60.4236(c)]
- 12.3.5. In addition to the requirements specified in §§60.4231 and 60.4233, it is prohibited to import stationary SI ICE less than or equal to 19 KW (25 HP), stationary rich burn LPG SI ICE, and stationary gasoline SI ICE that do not meet the applicable requirements specified in paragraphs (a), (b), and (c) of this section, after the date specified in paragraph (a), (b), and (c) of this section. [40CFR§60.4236(d)]
- 12.3.6. The requirements of this section do not apply to owners and operators of stationary SI ICE that have been modified or reconstructed, and they do not apply to engines that were removed from one existing location and reinstalled at a new location. [40CFR§60.4236(e)]
- 12.3.7. Starting on July 1, 2010, if the emergency stationary SI internal combustion engine that is greater than or equal to 500 HP that was built on or after July 1, 2010, does not meet the standards applicable to non-emergency engines, the owner or operator must install a non-resettable hour meter. [40CFR§60.4237(a)]
- 12.3.8. Starting on January 1, 2011, if the emergency stationary SI internal combustion engine that is greater than or equal to 130 HP and less than 500 HP that was built on or after January 1, 2011, does not meet the standards applicable to non-emergency engines, the owner or operator must install a non-resettable hour meter. [40CFR§60.4237(b)]
- 12.3.9. If you are an owner or operator of an emergency stationary SI internal combustion engine that is less than 130 HP, was built on or after July 1, 2008, and does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter upon startup of your emergency engine. [40CFR§60.4237(c)]

### **12.4. Compliance Requirements for Owners and Operators**

- 12.4.1. If you are an owner or operator of a stationary SI internal combustion engine that is manufactured after July 1, 2008, and must comply with the emission standards specified in §60.4233(a) through (c), you must comply by purchasing an engine certified to the emission standards in §60.4231(a) through (c), as applicable, for the same engine class and maximum engine power. You must also meet the requirements as specified in 40 CFR part 1068, subparts A through D, as they apply to you. If you adjust engine settings according to and consistent with the manufacturer's instructions, your stationary SI internal combustion engine will not be considered out of compliance. In addition, you must meet one of the requirements specified in (a)(1) and (2) of this section.

- a. If you operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, you must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required if you are an owner or operator.
- b. If you do not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, your engine will be considered a non-certified engine, and you must demonstrate compliance according to (a)(2)(i) through (iii) of this section, as appropriate.
  - 1. If you are an owner or operator of a stationary SI internal combustion engine less than 100 HP, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions, but no performance testing is required if you are an owner or operator.
  - 2. If you are an owner or operator of a stationary SI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test within 1 year of engine startup to demonstrate compliance.
  - 3. If you are an owner or operator of a stationary SI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test within 1 year of engine startup and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.

[40CFR§60.4243(a)]

12.4.2. If you are an owner or operator of a stationary SI internal combustion engine and must comply with the emission standards specified in §60.4233(d) or (e), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) and (2) of this section.

- a. Purchasing an engine certified according to procedures specified in this subpart, for the same model year and demonstrating compliance according to one of the methods specified in paragraph (a) of this section.
- b. Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in §60.4233(d) or (e) and according to the requirements specified in §60.4244, as applicable, and according to paragraphs (b)(2)(i) and (ii) of this section.
  - 1. If you are an owner or operator of a stationary SI internal combustion engine greater than 25 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance.
  - 2. If you are an owner or operator of a stationary SI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.

[40CFR§60.4243(b)]



- 12.4.3. If you are an owner or operator of a stationary SI internal combustion engine that must comply with the emission standards specified in §60.4233(f), you must demonstrate compliance according to paragraph (b)(2)(i) or (ii) of this section, except that if you comply according to paragraph (b)(2)(i) of this section, you demonstrate that your non-certified engine complies with the emission standards specified in §60.4233(f). [40CFR§60.4243(c)]
- 12.4.4. Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited. [40CFR§60.4243(d)]
- 12.4.5. Owners and operators of stationary SI natural gas fired engines may operate their engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the owners and operators are required to conduct a performance test to demonstrate compliance with the emission standards of §60.4233. [40CFR§60.4243(e)]
- 12.4.6. If you are an owner or operator of a stationary SI internal combustion engine that is less than or equal to 500 HP and you purchase a non-certified engine or you do not operate and maintain your certified stationary SI internal combustion engine and control device according to the manufacturer's written emission-related instructions, you are required to perform initial performance testing as indicated in this section, but you are not required to conduct subsequent performance testing unless the stationary engine is rebuilt or undergoes major repair or maintenance. A rebuilt stationary SI ICE means an engine that has been rebuilt as that term is defined in 40 CFR 94.11(a). [40CFR§60.4243(f)]
- 12.4.7. It is expected that air-to-fuel ratio controllers will be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times. [40CFR§60.4243(g)]
- 12.4.8. If you are an owner/operator of an stationary SI internal combustion engine with maximum engine power greater than or equal to 500 HP that is manufactured after July 1, 2007 and before July 1, 2008, and must comply with the emission standards specified in sections 60.4233(b) or (c), you must comply by one of the methods specified in paragraphs (h)(1) through (h)(4) of this section.
- a. Purchasing an engine certified according to 40 CFR part 1048. The engine must be installed and configured according to the manufacturer's specifications.
  - b. Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.
  - c. Keeping records of engine manufacturer data indicating compliance with the standards.

- d. Keeping records of control device vendor data indicating compliance with the standards.

[40CFR§60.4243(h)]

## 12.5. Testing Requirements for Owners and Operators

12.5.1. Owners and operators of stationary SI ICE who conduct performance tests must follow the procedures in paragraphs (a) through (f) of this section.

- a. Each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in §60.8 and under the specific conditions that are specified by Table 2 to this subpart. [40CFR§60.4244(a)]
- b. You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c). If your stationary SI internal combustion engine is non-operational, you do not need to startup the engine solely to conduct a performance test; however, you must conduct the performance test immediately upon startup of the engine. [40CFR§60.4244(b)]
- c. You must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour. [40CFR§60.4244(c)]
- d. To determine compliance with the NO<sub>x</sub> mass per unit output emission limitation, convert the concentration of NO<sub>x</sub> in the engine exhaust using Equation 1 of this section:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{HP - hr} \quad (\text{Eq. 1})$$

Where:

ER = Emission rate of NO<sub>x</sub> in g/HP-hr.

C<sub>d</sub> = Measured NO<sub>x</sub> concentration in parts per million by volume (ppmv).

1.912×10<sup>-3</sup> = Conversion constant for ppm NO<sub>x</sub> to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, horsepower-hour (HP-hr).

[40CFR§60.4244(d)]

- d. To determine compliance with the CO mass per unit output emission limitation, convert the concentration of CO in the engine exhaust using Equation 2 of this section:

$$ER = \frac{C_d \times 1.164 \times 10^{-3} \times Q \times T}{HP - hr} \quad (\text{Eq. 2})$$

Where:

ER = Emission rate of CO in g/HP-hr.

C<sub>d</sub> = Measured CO concentration in ppmv.

$1.164 \times 10^{-3}$  = Conversion constant for ppm CO to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

[40CFR§60.4244(e)]

- e. For purposes of this subpart, when calculating emissions of VOC, emissions of formaldehyde should not be included. To determine compliance with the VOC mass per unit output emission limitation, convert the concentration of VOC in the engine exhaust using Equation 3 of this section:

$$ER = \frac{C_d \times 1.833 \times 10^{-3} \times Q \times T}{HP - hr} \quad (\text{Eq. 3})$$

Where:

ER = Emission rate of VOC in g/HP-hr.

$C_d$  = VOC concentration measured as propane in ppmv.

$1.833 \times 10^{-3}$  = Conversion constant for ppm VOC measured as propane, to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

[40CFR§60.4244(f)]

- f. If the owner/operator chooses to measure VOC emissions using either Method 18 of 40 CFR part 60, appendix A, or Method 320 of 40 CFR part 63, appendix A, then it has the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using Equations 4 and 5 of this section. The corrected VOC concentration can then be placed on a propane basis using Equation 6 of this section.

$$RF_i = \frac{C}{C_{Ai}} \quad (\text{Eq. 4})$$

Where:

$RF_i$  = Response factor of compound i when measured with EPA Method 25A.

$C_{Mi}$  = Measured concentration of compound i in ppmv as carbon.

$C_{Ai}$  = True concentration of compound i in ppmv as carbon.

$$C_{i,corr} = RF_i \times C_{i,meas} \quad (\text{Eq. 5})$$

Where:

$C_{i,corr}$  = Concentration of compound i corrected to the value that would have been measured by EPA Method 25A, ppmv as carbon.

$C_{i,meas}$  = Concentration of compound i measured by EPA Method 320, ppmv as carbon.

$$C_{P_{eq}} = 0.6098 \times C_{i,corr} \quad (\text{Eq. 6})$$

Where:

$C_{P_{eq}}$  = Concentration of compound i in mg of propane equivalent per DSCM.

[40CFR§60.4244(g)]

## 12.6. Notification, Reports, and Records for Owners and Operators

12.6.1. For the purpose of determining compliance with the Maximum Yearly Operation Limitation in 12.1.1, a person designated by a Responsible Official or Authorized Representative shall maintain records of hours of operation.

12.6.2. Owners or operators of stationary SI ICE must meet the following notification, reporting and recordkeeping requirements.

- a. Owners and operators of all stationary SI ICE must keep records of the information in paragraphs (a)(1) through (4) of this section.
  1. All notifications submitted to comply with this subpart and all documentation supporting any notification.
  2. Maintenance conducted on the engine.
  3. If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90 and 1048.
  4. If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards.

[40CFR§60.4245(a)]

- b. For all stationary SI emergency ICE greater than or equal to 500 HP manufactured on or after July 1, 2010, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than or equal to 130 HP and less than 500 HP manufactured on or after July 1, 2011 that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than 25 HP and less than 130 HP manufactured on or after July 1, 2008, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.

[40CFR§60.4245(b)]

- c. Owners and operators of stationary SI ICE greater than or equal to 500 HP that have not been certified by an engine manufacturer to meet the emission standards in §60.4231 must submit an initial notification as required in §60.7(a)(1). The notification must include the information in paragraphs (c)(1) through (5) of this section.
  1. Name and address of the owner or operator;
  2. The address of the affected source;
  3. Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
  4. Emission control equipment; and
  5. Fuel used.  
[40CFR§60.4245(c)]
  
- d. Owners and operators of stationary SI ICE that are subject to performance testing must submit a copy of each performance test as conducted in §60.4244 within 60 days after the test has been completed. [40CFR§60.4245(d)]

## CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that, based on information and belief formed after reasonable inquiry, all information contained in the attached \_\_\_\_\_, representing the period beginning \_\_\_\_\_ and ending \_\_\_\_\_, and any supporting documents appended hereto, is true, accurate, and complete.

Signature<sup>1</sup> \_\_\_\_\_  
(please use blue ink) Responsible Official or Authorized Representative Date

Name & Title \_\_\_\_\_  
(please print or type) Name Title

Telephone No. \_\_\_\_\_ Fax No. \_\_\_\_\_

- 
- <sup>1</sup> This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:
- a. For a corporation: The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:
    - (i) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), or
    - (ii) the delegation of authority to such representative is approved in advance by the Director;
  - b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;
  - c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of U.S. EPA); or
  - d. The designated representative delegated with such authority and approved in advance by the Director.