*West Virginia Department of Environmental Protection*
*Division of Air Quality*

*Earl Ray Tomblin*
*Governor*

*Randy C. Huffman*
*Cabinet Secretary*

# Permit to Operate

Pursuant to

**Title V**

of the Clean Air Act

*Issued to:*

**Bayer CropScience**
**Institute Site**
(Powerhouses/Maintenance/WWTU/Laboratory)
**R30-03900007-2010 (1 of 8)**

*John A. Benedict*
*Director*

*Issued: December 29, 2010 • Effective: January 12, 2011*
*Expiration: December 29, 2015 • Renewal Application Due: June 29, 2015*

Permit Number: **R30-03900007-2010**

Permittee: **Bayer CropScience**

Facility Name: **Institute Site**

Mailing Address: **P.O. Box 1005**
**Charleston, WV 25112**

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*This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45CSR30 — Requirements for Operating Permits. The permittee identified at the above-referenced facility is authorized to operate the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.*

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| | |
|---|---|
| Facility Location: | Institute, Kanawha County, West Virginia |
| Mailing Address: | **P.O. Box 1005** |
| | **Institute, WV 25112** |
| Telephone Number: | 304-767-6148 |
| Type of Business Entity: | Corporation |
| Facility Description: | Powerhouses, Maintenance, Wastewater Treatment Unit, Laboratories |
| SIC Codes: | 2879; 2869 |
| UTM Coordinates: | 432.0 km Easting • 4248.310 km Northing • Zone 17 |

Permit Writer: Mike Egnor

*Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§ 22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §22-5-14.*

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*Issuance of this Title V Operating Permit does not supersede or invalidate any existing permits under 45CSR13, 14 or 19, although all applicable requirements from such permits governing the facility's operation and compliance have been incorporated into the Title V Operating Permit.*

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# 1.0 Emission Units and Active R13, R14, and R19 Permits

## 1.1. Emission Units

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed | Design Capacity | Control Device |
|---|---|---|---|---|---|
| ~~**Powerhouse No. 1**~~ **Boilers 13 and 14** | | | | | |
| ~~B-48003~~ | ~~480E~~ | ~~Boiler 3~~ | ~~1943~~ | ~~180 MMBTU/hr~~ | ~~Electrostatic Precipitator 3ESP~~ |
| ~~B-48004~~ | ~~480F~~ | ~~Boiler 4~~ | ~~1943~~ | ~~180 MMBTU/hr~~ | ~~Electrostatic Precipitator 4ESP~~ |
| ~~B-48005~~ | ~~480G~~ | ~~Boiler 5~~ | ~~1942~~ | ~~180 MMBTU/hr~~ | ~~None~~ |
| Boiler 13 | 480J | Boiler 13; Zurn Model RB741 Natural Gas Fired Boiler with low-$NO_x$ Burner and Flue Gas Recirculation | 2013 | 80 MM BTU/hr | None |
| Boiler 14 | 480K | Boiler 14; Zurn Model RB741 Natural Gas Fired Boiler with low-$NO_x$ Burner and Flue Gas Recirculation | 2013 | 80 MM BTU/hr | None |
| ~~1021~~ | ~~480E or 480F or 480G~~ | ~~Tank~~ | ~~1943~~ | ~~240,000 gallons~~ | ~~Boiler 3 or Boiler 4 or Boiler 5~~ |
| ~~1022~~ | ~~480E or 480F or 480G~~ | ~~Sump Tank~~ | ~~1966~~ | ~~30,000 gallons~~ | ~~Boiler 3 or Boiler 4 or Boiler 5~~ |
| ~~1043~~ | ~~480E or 480F or 480G~~ | ~~Tank~~ | ~~1966~~ | ~~30,000 gallons~~ | ~~Boiler 3 or Boiler 4 or Boiler 5~~ |
| ~~1044~~ | ~~480E or 480F or 480G~~ | ~~Tank~~ | ~~1966~~ | ~~30,000 gallons~~ | ~~Boiler 3 or Boiler 4 or Boiler 5~~ |
| ~~East Tank Truck Pad~~ | ~~480E or 480F or 480G~~ | ~~East Tank Truck Pad~~ | ~~1988~~ | ~~5,000 gallons~~ | ~~Boiler 3 or Boiler 4 or Boiler 5~~ |
| ~~Rail Car Rack~~ | ~~Sump~~ | ~~Rail Car Rack~~ | ~~1995~~ | ~~25,000 gallons~~ | ~~N/A~~ |
| ~~H-480~~ | ~~480H~~ | ~~Flyash Pneumatic Conveying/Drumming System~~ | ~~1991~~ | ~~Permit Feed Rate~~ | ~~HEPA Filter~~ |
| ~~South TT Pad~~ | ~~N/A~~ | ~~South TT Pad~~ | ~~1995~~ | ~~25,000 gallons~~ | ~~N/A~~ |
| ~~Control Device~~ | | | | | |
| ~~3ESP~~ | ~~480E~~ | ~~Electrostatic Precipitator~~ | ~~1968~~ | ~~120,000 cfm~~ | ~~N/A~~ |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed | Design Capacity | Control Device |
|---|---|---|---|---|---|
| ~~4ESP~~ | ~~480F~~ | ~~Electrostatic Precipitator~~ | ~~1968~~ | ~~120,000 cfm~~ | ~~N/A~~ |
| ~~5ESP~~ | ~~480G~~ | ~~Electrostatic Precipitator~~ | ~~1968~~ | ~~120,000 cfm~~ | ~~N/A~~ |
| ~~HEPA~~ | ~~480H~~ | ~~HEPA Filter~~ | ~~1991~~ | ~~5,600 cfm~~ | ~~N/A~~ |
| **Powerhouse No.2** | | | | | |
| D-940 | 485R | Lime Storage Silo | 2000 | 40 tons | Bin Vent Filter (D-941) |
| Conveyor A | 485Q | Pneumatic Conveyor A | 1996 | 7 TPH | Baghouse (D-901) |
| Conveyor B | 485P | Pneumatic Conveyor B | 1996 | 7 TPH | Baghouse (D-900) |
| D-910 | 485O | Flyash Storage Silo | 1988 | 350 tons | Silo Bin Filter (D-905) |
| Boiler No. 10 | 480A | Boiler No. 10 | 1956 | 360 MMBTU/hr | Electrostatic Precipitator (1C) |
| Boiler No. 11 | 480A | Boiler No. 11 | 1960 | 360 MMBTU/hr | Electrostatic Precipitator (2C) |
| Boiler No. 12 | 480A | Boiler No. 12 | 1963 | 360 MMBTU/hr | Electrostatic Precipitator (3C) |
| Coal Bunkers | 485L<br>485N | Coal Storage Bunker Room | 1956 | 20 tons | Baghouse (L-485)<br>Baghouse (N-485) |
| Truck Fill Line | 480I | Truck Fill Line | 1998 | 1,500 acfm | Filter (D-916) |
| 547 | 485M | Water Softener Lime Silo | 1960 | 40 tons | Baghouse (M-485) |
| Control Device | | | | | |
| D-941 | 485R | Bin Vent Filter | 1998 | 235 $ft^2$ cloth | N/A |
| D-901 | 485Q | Baghouse | 1996 | 355 $ft^2$ cloth | N/A |
| D-900 | 485P | Baghouse | 1996 | 355 $ft^2$ cloth | N/A |
| D-905 | 485O | Silo Bin Filter | 1996 | 132 $ft^2$ cloth | N/A |
| D-916 | 480I | Filter | 1998 | 640 $ft^2$ cloth | N/A |
| 1C | 480A | Electrostatic Precipitator | 1978 | 194,000 cfm | N/A |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed | Design Capacity | Control Device |
|---|---|---|---|---|---|
| 2C | 480A | Electrostatic Precipitator | 1978 | 194,000 cfm | N/A |
| 3C | 480A | Electrostatic Precipitator | 1978 | 194,000 cfm | N/A |
| L-485 | 485L | Baghouse | 1978 | 1,232 $ft^2$ cloth | N/A |
| N-485 | 485N | Baghouse | 1978 | 1,232 $ft^2$ cloth | N/A |
| M-485 | 485M | Baghouse | 1991 | 150 $ft^2$ cloth | N/A |
| **Maintenance** | | | | | |
| 100 | 460A | Gasoline Tank | 1985 | 4,000 gallons | Vapor Balance |
| 460 | 460A | VAT Tank | 1979 | 2500 gallons | Closed Top |
| 460 | Fugitives | General Maintenance Supplies | N/A | N/A | N/A |
| EG-1 | EG-1 | Cummins, Inc. Model QSM11-G4 Emergency Generator | 2010 | 270 bhp/1,800 rpm LB4S | N/A |
| 6392N54277 | 6392N54277 | #2 Fuel Oil Tank | 2010 | 550 gallons | N/A |
| **WWTU** | | | | | |
| N/A | 010D | Collection Sump | 1988 | 5,000 gallons | Carbon Adsorption |
| F-1 | 010C | Filter Press | 1988 | N/A | N/A |
| T-6 | 015A | Lime Silo | 1988 | 60 tons | Baghouse (S-1) |
| T-10E | 010D | 2nd Stage Mix Tank | 1988 | 7,000 gallons | Carbon Adsorption (S-2) |
| T-7 | 010C | Ferric Chloride Tank | 1988 | 5,000 gallons | N/A |
| T-9 | 010D | 1st Stage Mix Tank | N/A | 1,200 gallons | Carbon Adsorption (S-2) |
| 609 | 010F | HCl Acid Storage Tank | 1990 | 12,000 gallons | Scrubber (F-010) |
| T-8 | Open Top | Aerobic Digester | N/A | 330,000 gallons | N/A |
| 608 | Open Top | Leachate Tank | 1988 | 300,000 gallons | N/A |
| Control Device | | | | | |
| S-2 | 010D | Carbon Adsorption | 1988 | 1,800 lbs carbon | N/A |
| S-1 | 015A | Baghouse | 1988 | 151 $ft^2$ cloth | N/A |
| F-010 | 010F | Scrubber | 1990 | 4 gpm | N/A |
| **Laboratory** | | | | | |

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed | Design Capacity | Control Device |
|---|---|---|---|---|---|
| 450 | Fugitives | Miscellaneous Laboratory Analyses | N/A | N/A | N/A |

## 1.2. Active R13, R14, and R19 Permits

The underlying authority for any conditions from R13, R14, and/or R19 permits contained in this operating permit is cited using the original permit number (e.g. R13-1234). The current applicable version of such permit(s) is listed below.

| Permit Number | Date of Issuance |
|---|---|
| R13-0277 | 01/27/1977 |
| R13-2001B | 01/26/2009 |
| R13-2190A | 01/20/2000 |
| R13-1033 | 08/31/1988 |
| R13-1248 | 07/23/1990 |
| R13-3111 | January 16, 2014 |
| G60-C023 | 11/19/2010 |
| G60-C | 5/21/2009 |

# 2.0 General Conditions

## 2.1. Definitions

2.1.1. 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.

2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.

2.1.3. "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.

2.1.4. Unless otherwise specified in a permit condition or underlying rule or regulation, all references to a "rolling yearly total" shall mean the sum of the monthly data, values or parameters being measured, monitored, or recorded, at any given time for the previous twelve (12) consecutive calendar months.

## 2.2. Acronyms

| | | | |
|---|---|---|---|
| **CAAA** | Clean Air Act Amendments | **$NO_x$** | Nitrogen Oxides |
| **CBI** | Confidential Business Information | **NSPS** | New Source Performance Standards |
| **CEM** | Continuous Emission Monitor | **PM** | Particulate Matter |
| **CES** | Certified Emission Statement | **$PM_{10}$** | Particulate Matter less than 10µm in diameter |
| **C.F.R. *or* CFR** | Code of Federal Regulations | **pph** | Pounds per Hour |
| **CO** | Carbon Monoxide | **ppm** | Parts per Million |
| **C.S.R. *or* CSR** | Codes of State Rules | **PSD** | Prevention of Significant Deterioration |
| **DAQ** | Division of Air Quality | **psi** | Pounds per Square Inch |
| **DEP** | Department of Environmental Protection | **SIC** | Standard Industrial Classification |
| **FOIA** | Freedom of Information Act | **SIP** | State Implementation Plan |
| **HAP** | Hazardous Air Pollutant | **$SO_2$** | Sulfur Dioxide |
| **HON** | Hazardous Organic NESHAP | **TAP** | Toxic Air Pollutant |
| **HP** | Horsepower | **TPY** | Tons per Year |
| **lbs/hr *or* lb/hr** | Pounds per Hour | **TRS** | Total Reduced Sulfur |
| **LDAR** | Leak Detection and Repair | **TSP** | Total Suspended Particulate |
| **m** | Thousand | **USEPA** | United States Environmental Protection Agency |
| **MACT** | Maximum Achievable Control Technology | **UTM** | Universal Transverse Mercator |
| **mm** | Million | **VEE** | Visual Emissions Evaluation |
| **mmBtu/hr** | Million British Thermal Units per Hour | **VOC** | Volatile Organic Compounds |
| **$mmft^3$/hr *or* mmcf/hr** | Million Cubic Feet Burned per Hour | | |
| **NA *or* N/A** | Not Applicable | | |
| **NAAQS** | National Ambient Air Quality Standards | | |
| **NESHAPS** | National Emissions Standards for Hazardous Air Pollutants | | |

## 2.3. Permit Expiration and Renewal

2.3.1. Permit duration. This permit is issued for a fixed term of five (5) years and shall expire on the date specified on the cover of this permit, except as provided in 45CSR§30-6.3.b. and 45CSR§30-6.3.c.
**[45CSR§30-5.1.b.]**

2.3.2. A permit renewal application is timely if it is submitted at least six (6) months prior to the date of permit expiration.
**[45CSR§30-4.1.a.3.]**

2.3.3. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with 45CSR§30-6.2. and 45CSR§30-4.1.a.3.
**[45CSR§30-6.3.b.]**

2.3.4. If the Secretary fails to take final action to deny or approve a timely and complete permit application before the end of the term of the previous permit, the permit shall not expire until the renewal permit has been issued or denied, and any permit shield granted for the permit shall continue in effect during that time.
**[45CSR§30-6.3.c.]**

## 2.4. Permit Actions

2.4.1. This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
**[45CSR§30-5.1.f.3.]**

## 2.5. Reopening for Cause

2.5.1. This permit shall be reopened and revised under any of the following circumstances:

a. Additional applicable requirements under the Clean Air Act or the Secretary's legislative rules become applicable to a major source with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 45CSR§§30-6.6.a.1.A. or B.

b. Additional requirements (including excess emissions requirements) become applicable to an affected source under Title IV of the Clean Air Act (Acid Deposition Control) or other legislative rules of the Secretary. Upon approval by U.S. EPA, excess emissions offset plans shall be incorporated into the permit.

c. The Secretary or U.S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

d. The Secretary or U.S. EPA determines that the permit must be revised or revoked and reissued to assure compliance with the applicable requirements.

**[45CSR§30-6.6.a.]**

## 2.6. Administrative Permit Amendments

2.6.1. The permittee may request an administrative permit amendment as defined in and according to the procedures specified in 45CSR§30-6.4.
**[45CSR§30-6.4.]**

## 2.7. Minor Permit Modifications

2.7.1. The permittee may request a minor permit modification as defined in and according to the procedures specified in 45CSR§30-6.5.a.
**[45CSR§30-6.5.a.]**

## 2.8. Significant Permit Modification

2.8.1. The permittee may request a significant permit modification, in accordance with 45CSR§30-6.5.b., for permit modifications that do not qualify for minor permit modifications or as administrative amendments.
**[45CSR§30-6.5.b.]**

## 2.9. Emissions Trading

2.9.1. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit and that are in accordance with all applicable requirements.
**[45CSR§30-5.1.h.]**

## 2.10. Off-Permit Changes

2.10.1. Except as provided below, a facility may make any change in its operations or emissions that is not addressed nor prohibited in its permit and which is not considered to be construction nor modification under any rule promulgated by the Secretary without obtaining an amendment or modification of its permit. Such changes shall be subject to the following requirements and restrictions:

a. The change must meet all applicable requirements and may not violate any existing permit term or condition.

b. The permittee must provide a written notice of the change to the Secretary and to U.S. EPA within two (2) business days following the date of the change. Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.

c. The change shall not qualify for the permit shield.

d. The permittee shall keep records describing all changes made at the source that result in emissions of regulated air pollutants, but not otherwise regulated under the permit, and the emissions resulting from those changes.

e. No permittee may make any change subject to any requirement under Title IV of the Clean Air Act (Acid Deposition Control) pursuant to the provisions of 45CSR§30-5.9.

f. No permittee may make any changes which would require preconstruction review under any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) pursuant to the provisions of 45CSR§30-5.9.

**[45CSR§30-5.9.]**

## 2.11. Operational Flexibility

2.11.1. The permittee may make changes within the facility as provided by § 502(b)(10) of the Clean Air Act. Such operational flexibility shall be provided in the permit in conformance with the permit application and applicable requirements. No such changes shall be a modification under any rule or any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) promulgated by the Secretary in accordance with Title I of the Clean Air Act and the change shall not result in a level of emissions exceeding the emissions allowable under the permit.
**[45CSR§30-5.8]**

2.11.2. Before making a change under 45CSR§30-5.8., the permittee shall provide advance written notice to the Secretary and to U.S. EPA, describing the change to be made, the date on which the change will occur, any changes in emissions, and any permit terms and conditions that are affected. The permittee shall thereafter maintain a copy of the notice with the permit, and the Secretary shall place a copy with the permit in the public file. The written notice shall be provided to the Secretary and U.S. EPA at least seven (7) days prior to the date that the change is to be made, except that this period may be shortened or eliminated as necessary for a change that must be implemented more quickly to address unanticipated conditions posing a significant health, safety, or environmental hazard. If less than seven (7) days notice is provided because of a need to respond more quickly to such unanticipated conditions, the permittee shall provide notice to the Secretary and U.S. EPA as soon as possible after learning of the need to make the change.
**[45CSR§30-5.8.a.]**

2.11.3. The permit shield shall not apply to changes made under 45CSR§30-5.8., except those provided for in 45CSR§30-5.8.d. However, the protection of the permit shield will continue to apply to operations and emissions that are not affected by the change, provided that the permittee complies with the terms and conditions of the permit applicable to such operations and emissions. The permit shield may be reinstated for emissions and operations affected by the change:

a. If subsequent changes cause the facility's operations and emissions to revert to those authorized in the permit and the permittee resumes compliance with the terms and conditions of the permit, or

b. If the permittee obtains final approval of a significant modification to the permit to incorporate the change in the permit.

**[45CSR§30-5.8.c.]**

2.11.4. "Section 502(b)(10) changes" are changes that contravene an express permit term. Such changes do not include changes that would violate applicable requirements or contravene enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
**[45CSR§30-2.39]**

## 2.12. Reasonably Anticipated Operating Scenarios

2.12.1. The following are terms and conditions for reasonably anticipated operating scenarios identified in this permit.

a. Contemporaneously with making a change from one operating scenario to another, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating and to document the change in reports submitted pursuant to the terms of this permit and 45CSR30.

b. The permit shield shall extend to all terms and conditions under each such operating scenario; and

c. The terms and conditions of each such alternative scenario shall meet all applicable requirements and the requirements of 45CSR30.

**[45CSR§30-5.1.i.]**

## 2.13. Duty to Comply

2.13.1. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.
**[45CSR§30-5.1.f.1.]**

## 2.14. Inspection and Entry

2.14.1. The permittee 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 (including all times in which the facility is in operation) enter upon the permittee'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 permit;

c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the 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.

**[45CSR§30-5.3.b.]**

## 2.15. Schedule of Compliance

2.15.1. For sources subject to a compliance schedule, certified progress reports shall be submitted consistent with the applicable schedule of compliance set forth in this permit and 45CSR§30-4.3.h., but at least every six (6) months, and no greater than once a month, and shall include the following:

a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and

b. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measure adopted.

**[45CSR§30-5.3.d.]**

## 2.16. Need to Halt or Reduce Activity not a Defense

2.16.1. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this 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.
**[45CSR§30-5.1.f.2.]**

## 2.17. Emergency

2.17.1. 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 the 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.
**[45CSR§30-5.7.a.]**

2.17.2. 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 45CSR§30-5.7.c. are met.
**[45CSR§30-5.7.b.]**

2.17.3. 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 permittee can identify the cause(s) of the emergency;

b. The permitted facility was at the time being properly operated;

c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

d. Subject to the requirements of 45CSR§30-5.1.c.3.C.1, the permittee 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 45CSR§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.

**[45CSR§30-5.7.c.]**

2.17.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.
**[45CSR§30-5.7.d.]**

2.17.5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.
**[45CSR§30-5.7.e.]**

## 2.18. Federally-Enforceable Requirements

2.18.1. All terms and conditions in this permit, including any provisions designed to limit a source's potential to emit and excepting those provisions that are specifically designated in the permit as "State-enforceable only", are enforceable by the Secretary, USEPA, and citizens under the Clean Air Act.
**[45CSR§30-5.2.a.]**

2.18.2. Those provisions specifically designated in the permit as “State-enforceable only” shall become “Federally-enforceable” requirements upon SIP approval by the USEPA.

## 2.19. Duty to Provide Information

2.19.1. The permittee 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 the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records required to be kept by the permittee. For information claimed to be confidential, the permittee 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 permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.
**[45CSR§30-5.1.f.5.]**

## 2.20. Duty to Supplement and Correct Information

2.20.1. Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.
**[45CSR§30-4.2.]**

## 2.21. Permit Shield

2.21.1. Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance provided that such applicable requirements are included and are specifically

identified in this permit or the Secretary has determined that other requirements specifically identified are not applicable to the source and this permit includes such a determination or a concise summary thereof.
**[45CSR§30-5.6.a.]**

2.21.2. Nothing in this permit shall alter or affect the following:

a. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance; or

b. The applicable requirements of the Code of West Virginia and Title IV of the Clean Air Act (Acid Deposition Control), consistent with § 408 (a) of the Clean Air Act.

c. The authority of the Administrator of U.S. EPA to require information under § 114 of the Clean Air Act or to issue emergency orders under § 303 of the Clean Air Act.

**[45CSR§30-5.6.c.]**

## 2.22. Credible Evidence

2.22.1. Nothing in this 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 permittee including but not limited to any challenge to the credible evidence rule in the context of any future proceeding.
**[45CSR§30-5.3.e.3.B. and 45CSR38]**

## 2.23. Severability

2.23.1. The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid by a court of competent jurisdiction, the remaining permit terms and conditions or their application to other circumstances shall remain in full force and effect.
**[45CSR§30-5.1.e.]**

## 2.24. Property Rights

2.24.1. This permit does not convey any property rights of any sort or any exclusive privilege.
**[45CSR§30-5.1.f.4]**

## 2.25. Acid Deposition Control

2.25.1. Emissions shall not exceed any allowances that the source lawfully holds under Title IV of the Clean Air Act (Acid Deposition Control) or rules of the Secretary promulgated thereunder.

a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid deposition control program, provided that such increases do not require a permit revision under any other applicable requirement.

b. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement.

c. Any such allowance shall be accounted for according to the procedures established in rules promulgated under Title IV of the Clean Air Act.

**[45CSR§30-5.1.d.]**

2.25.2. Where applicable requirements of the Clean Air Act are more stringent than any applicable requirement of regulations promulgated under Title IV of the Clean Air Act (Acid Deposition Control), both provisions shall be incorporated into the permit and shall be enforceable by the Secretary and U. S. EPA.
**[45CSR§30-5.1.a.2.]**

# 3.0 Facility-Wide Requirements

## 3.1. Limitations and Standards

3.1.1. **Open burning.** The open burning of refuse by any person is prohibited except as noted in 45CSR§6-3.1.
**[45CSR§6-3.1.]**

3.1.2. **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 or allow 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.]**

3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the 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 permittee, 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 permittee 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.
**[40 C.F.R. §61.145(b) and 45CSR34]**

3.1.4. **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.]**

3.1.5. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee 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]**

3.1.6. **Emission inventory.** The permittee is responsible for submitting, on an annual basis, an emission inventory in accordance with the submittal requirements of the Division of Air Quality.
**[W.Va. Code § 22-5-4(a)(14)]**

3.1.7. **Ozone-depleting substances.** For those facilities performing maintenance, service, repair or disposal of appliances, the permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 C.F.R. Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:

a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the prohibitions and required practices pursuant to 40 C.F.R. §§ 82.154 and 82.156.

b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 C.F.R. § 82.158.

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 C.F.R. § 82.161.

**[40 C.F.R. 82, Subpart F]**

3.1.8. **Risk Management Plan.** Should this stationary source, as defined in 40 C.F.R. § 68.3, become subject to Part 68, then the owner or operator shall submit a risk management plan (RMP) by the date specified in 40 C.F.R. § 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 C.F.R. Part 70 or 71.
**[40 C.F.R. 68]**

3.1.9. **CAIR $NO_x$ Ozone Season Trading Program.** The permittee shall comply with the standard requirements set forth in the attached CAIR Permit Application (see Attachment B) and the CAIR permit requirements set forth in 45CSR40 for each CAIR $NO_x$ Ozone Season source. The complete CAIR Permit Application shall be the CAIR Permit portion of the Title V permit administered in accordance with 45CSR30.
**[45CSR§§40-6.1.b. and 20.1.]**

a. The CAIR Permit portion of this permit is deemed to incorporate automatically the definitions of terms under 45CSR§40-2 and, upon recordation by the Administrator under sections 51 through 57, or 60 through 62 of 45CSR40, every allocation, transfer, or deduction of a CAIR $NO_x$ Ozone Season allowance to or from the compliance account of the CAIR $NO_x$ Ozone Season source covered by the permit.
**[45CSR§40-23.2.]**

b. Except as provided in 45CSR§40-23.2, the Secretary will revise the CAIR Permit portion of this permit, as necessary, in accordance with the operating permit revision requirements set forth in 45CSR30.
**[45CSR§40-24.1.]**

3.1.10. The permitted facility shall be constructed and operated in accordance with information filed in Permit Application R13-0277, R13-1033, R13-1248, R13-2001, R13-2001A, R13-2001B, R13-2190A, R13-3111 and any amendments thereto. The Director may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to.
**[45CSR13, Permit Application No. 0277, Permit No. R13-1033 (Condition G.R. 2), Permit No. R13-1248 (Condition G.R. 2), Permit No. 1308A (Condition G.R. 2), Permit No. R13-2001B (Condition C.3.), Permit No. R13-2190A (Condition C.3.)]**

3.1.11. When emissions on an annual basis of one or more of the greenhouse gases listed below are greater than the *de minimis* amounts listed below, all greenhouse gases emitted above the *de minimis* amounts shall be reported to the Secretary under 45CSR§42-4. (see Section 3.5.):

| Greenhouse Gas Compound | tons/year |
|---|---|
| carbon dioxide | 10,000 |
| methane | 476 |
| nitrous oxide | 32.6 |
| hydrofluorocarbons | 0.855 |
| perfluorocarbons | 1.09 |
| sulfur hexafluoride | 0.42 |

**[45CSR§42-3.1., State-Enforceable only.]**

## 3.2. Monitoring Requirements

N/A

## 3.3. Testing Requirements

3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee 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, if applicable, in accordance with the Secretary's delegated authority and any established equivalency determination methods which are 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.

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 permittee 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) and 45CSR13]**

## 3.4. Recordkeeping Requirements

3.4.1. **Monitoring information.** The permittee 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.

**[45CSR§30-5.1.c.2.A.]**

3.4.2. **Retention of records.** The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of monitoring sample, measurement, report, application, or record creation date. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Where appropriate, records may be maintained in computerized form in lieu of the above records.
**[45CSR§30-5.1.c.2.B.]**

3.4.3. **Odors.** For the purposes of 45CSR4, the permittee 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§30-5.1.c. State-Enforceable only.]**

## 3.5. Reporting Requirements

3.5.1. **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.
**[45CSR§§30-4.4. *and* 5.1.c.3.D.]**

3.5.2. A permittee may request confidential treatment for the submission of reporting required under 45CSR§30-5.1.c.3. pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.
**[45CSR§30-5.1.c.3.E.]**

3.5.3. Except for the electronic submittal of the annual certification to the USEPA as required in 3.5.5 below, 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, mailed first class or by private carrier 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:** | **If to the US EPA:** |
|---|---|
| Director<br>WVDEP<br>Division of Air Quality | Associate Director<br>Office of Enforcement and Permits Review<br>(3AP12) |

601 57th Street SE
Charleston, WV 25304

Phone: 304/926-0475
FAX: 304/926-0478

U. S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

3.5.4. **Certified emissions statement.** The permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality. **[45CSR§30-8.]**

3.5.5. **Compliance certification.** The permittee shall certify compliance with the conditions of this permit on the forms provided by the DAQ. In addition to the annual compliance certification, the permittee may be required to submit certifications more frequently under an applicable requirement of this permit. The annual certification shall be submitted to the DAQ and USEPA on or before March 15 of each year, and shall certify compliance for the period ending December 31. The annual certification to the USEPA shall be submitted in electronic format only. It shall be submitted by e-mail to the following address: R3_APD_Permits@epa.gov. The permittee shall maintain a copy of the certification on site for five (5) years from submittal of the certification. **[45CSR§30-5.3.e.]**

3.5.6. **Semi-annual monitoring reports.** The permittee shall submit reports of any required monitoring on or before September 15 for the reporting period January 1 to June 30 and on or before March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with 45CSR§30-4.4. **[45CSR§30-5.1.c.3.A.]**

3.5.7. **Emergencies.** For reporting emergency situations, refer to Section 2.17 of this permit.

3.5.8. **Deviations.**

a. In addition to monitoring reports required by this permit, the permittee shall promptly submit supplemental reports and notices in accordance with the following:

1. Any deviation resulting from an emergency or upset condition, as defined in 45CSR§30-5.7., shall be reported by telephone or telefax within one (1) working day of the date on which the permittee becomes aware of the deviation, if the permittee desires to assert the affirmative defense in accordance with 45CSR§30-5.7. A written report of such deviation, which shall include the probable cause of such deviations, and any corrective actions or preventative measures taken, shall be submitted and certified by a responsible official within ten (10) days of the deviation.

2. Any deviation that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to the Secretary immediately by telephone or telefax. A written report of such deviation, which shall include the probable cause of such deviation, and any corrective actions or preventative measures taken, shall be submitted by the responsible official within ten (10) days of the deviation.

3. Deviations for which more frequent reporting is required under this permit shall be reported on the more frequent basis.

4. All reports of deviations shall identify the probable cause of the deviation and any corrective actions or preventative measures taken.

**[45CSR§30-5.1.c.3.C.]**

b. The permittee shall, in the reporting of deviations from permit requirements, including those attributable to upset conditions as defined in this permit, report the probable cause of such deviations and any corrective actions or preventive measures taken in accordance with any rules of the Secretary.
**[45CSR§30-5.1.c.3.B.]**

3.5.9. **New applicable requirements.** If any applicable requirement is promulgated during the term of this permit, the permittee will meet such requirements on a timely basis, or in accordance with a more detailed schedule if required by the applicable requirement.
**[45CSR§30-4.3.h.1.B.]**

3.5.10. **Greenhouse Gas Reporting Requirements**. When applicable, as determined in permit section 3.1., greenhouse gas emissions shall be reported pursuant to 45CSR§42-4. as follows:

a. In accordance with a reporting cycle provided by the Secretary, affected sources shall report to the Secretary the quantity of all greenhouse gases emitted above *de minimis* amounts in the years specified by the Secretary.
**[45CSR§42-4.1., State-Enforceable only.]**

b. Affected sources shall only be required to report annual quantities of anthropogenic non-mobile source greenhouse gases emitted at the stationary source, and shall not be required to report biogenic emissions of greenhouse gases.
**[45CSR§42-4.2., State-Enforceable only.]**

c. Reports of greenhouse gas emissions submitted to the Secretary under 45CSR§42-4. shall be signed by a responsible official and shall include the following certification statement: "I, the undersigned, hereby certify that the data transmitted to the West Virginia Department of Environmental Protection is true, accurate, and complete, based upon information and belief formed after reasonable inquiry.
**[45CSR§42-4.5., State-Enforceable only.]**

## 3.6. Compliance Plan

N/A

## 3.7. Permit Shield

3.7.1. The permittee is hereby granted a permit shield in accordance with 45CSR§30-5.6. The permit shield applies provided the permittee operates in accordance with the information contained within this permit.

3.7.2. The following requirements specifically identified are not applicable to the source based on the determinations set forth below. The permit shield shall apply to the following requirements provided the conditions of the determinations are met.
N/A

## 4.0 Source-Specific Requirements [~~Powerhouse No. 1~~ Boilers 13 and 14]

### 4.1. Limitations and Standards

~~4.1.1. **Flyash Pneumatic/Drumming System.**~~

~~a. Particulate emissions from the HEPA filter dust collection system shall not exceed a rate of 0.0025 lbs/hr and 0.01 tons/year. Compliance with this lb/hr rate will demonstrate compliance with 45CSR§7-4.1.~~

~~b. The maximum annual throughput for the Flyash Drumming System shall be 1,060 tons per year.~~

~~**[Compliance with 45CSR13, Permit No. R13-1308 (Condition A.1.) will also show compliance with 45CSR§7-4.1. (480H)]**~~

~~4.1.2. Particulate Matter emissions from each boiler (Boilers 3, 4, and 5) shall not exceed 16.2 lbs/hr. The averaging time shall be as outlined in 45CSR2 Appendix §§ 4.1.b. & 4.1.c.~~
~~**[45CSR§2-4.1.b., 45CSR2-Appendix §§ 4.1.b. & 4.1.c. (480E, 480F, 480G)]**~~

~~4.1.3. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.~~
~~**[45CSR§2-3.1. (480E, 480F, 480G)]**~~

~~4.1.4. Compliance with the visible emission requirements of Condition 4.1.3. shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 or by using measurements from continuous opacity monitoring systems approved by the Director. The Director may require the installation, calibration, maintenance and operation of continuous opacity monitoring systems and may establish policies for the evaluation of continuous opacity monitoring results and the determination of compliance with the visible emission requirements of Condition 4.1.3.~~
~~**[45CSR§2-3.2. (480E, 480F, 480G)]**~~

~~4.1.5. No person shall cause, suffer, allow or permit any source of fugitive particulate matter to operate that is not equipped with a fugitive particulate matter control system. This system shall be operated and maintained in such a manner as to minimize the emission of fugitive particulate matter. Sources of fugitive particulate matter associated with fuel burning units shall include, but not be limited to, the following:~~

~~Stockpiling of ash or fuel either in the open or in enclosures such as silos;~~

~~Transport of ash in vehicles or on conveying systems, to include spillage, tracking or blowing of particulate matter from or by such vehicles or equipment; and ash or fuel handling systems and ash disposal areas.~~
~~**[45CSR§2-5.1. (480E, 480F)]**~~

~~4.1.6. The visible emission standards set forth in Condition 4.1.3. shall apply at all times except in periods of start-ups, shutdowns and malfunctions. Where the Director believes that start-ups and shutdowns are excessive in duration and/or frequency, the Director may require an owner or operator to provide a written report demonstrating that such frequent start-ups and shutdowns are necessary.~~
~~**[45CSR§2-9.1. (480E, 480F, 480G)]**~~

~~4.1.7. At all times, including periods of start-ups, shutdowns and malfunctions, owners and operators shall, to the extent practicable, maintain and operate any fuel burning unit(s) including associated air pollution control~~

~~equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, visible emission observations, review of operating and maintenance procedures and inspection of the source.~~
~~**[45CSR§2-9.2. (480E, 480F, 480G)]**~~

~~4.1.8. Sulfur dioxide emissions from each boiler (Boilers 3, 4, and 5) shall not exceed 288 lbs/hr.~~
~~**[45CSR§10-3.2.c. (480E, 480F, 480G)]**~~

~~4.1.9. Compliance with the allowable sulfur dioxide emission limitations from fuel burning units shall be based on a continuous twenty-four (24) hour averaging time. The owner and/or operator of a fuel burning unit shall not allow emissions to exceed the weight emissions standards for sulfur dioxide as set forth in 45CSR10, except during one (1) continuous twenty-four (24) hour period in each calendar month and during this one (1) continuous twenty-four hour period said owner and/or operator shall not allow emissions to exceed such weight emission standards by more than ten percent (10%) without causing a violation of 45CSR10. A continuous twenty-four (24) hour period is defined as one (1) calendar day.~~
~~**[45CSR§10-3.8. (480E, 480F, 480G)]**~~

~~4.1.10. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity.~~
~~**[45CSR§7-3.1. (480H)]**~~

~~4.1.11. The provisions of 4.1.10. shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.~~
~~**[45CSR§7-3.2. (480H)]**~~

~~4.1.12. Any stack serving any process source operation or air pollution control equipment on any process source operation shall contain flow straightening devices or a vertical run of sufficient length to establish flow patterns consistent with acceptable stack sampling procedures.~~
~~**[45CSR§7-4.12. (480H)]**~~

~~4.1.13. The Permittee must not discharge or cause combustion gases to be emitted into the atmosphere that contain more than the following:~~

| ~~Pollutant~~ | ~~Emission Limit~~ | ~~Citation~~ |
|---|---|---|
| ~~Dioxins/furans (D/F)~~ | ~~0.40 ng TEQ/dscm [1]~~ | ~~40CFR§63.1217(a)(1)(i)~~ |
| ~~Mercury~~ | ~~4.2E-05 lb/MMBtu [2] or 19 µg/dscm [1,3]~~ | ~~40CFR§63.1217(a)(2)~~ |
| ~~Semivolatile metals (SVM)~~ | ~~8.2E-05 lb/MMBtu [2] or 150 µg/dscm [1,3]~~ | ~~40CFR§63.1217(a)(3)~~ |
| ~~Chromium~~ | ~~1.3E-04 lb/MMBtu [2] or 370 µg/dscm [1,3]~~ | ~~40CFR§63.1217(a)(4)~~ |
| ~~Hydrogen chloride and chlorine (HCl/Cl2)~~ | ~~51.3 lb/hr (annual average, HCL toxic equivalents)~~<br>~~22.1 lb/hr (hourly average, HCL toxic equivalents)~~ | ~~40CFR§63.1215(a)(1)~~ |
| ~~Particulate Matter (PM)~~ | ~~80 mg/dscm [1]~~ | ~~40CFR§63.1217(a)(7)~~ |
| ~~Carbon Monoxide (CO)~~ | ~~100 ppmv, dry basis [1]~~ | ~~40CFR§63.1217(a)(5)(i)~~ |
| ~~Hydrocarbons (HC)~~ | ~~10 ppmv, dry basis [1]~~ | ~~40CFR§63.1217(a)(5)(i)~~ |

~~[1] Corrected to seven percent oxygen~~
~~[2] When the hazardous waste burned has an as-fired heating value of 10,000 BTU/lb or greater (Compliance with the~~

~~thermal emission standards will show compliance with the concentration based standards)~~
~~[3] When the hazardous waste burned has an as-fired heating value of less than 10,000 BTU/lb~~
~~**[45CSR34 (480E and 480F)]**~~

~~4.1.14. *Destruction and removal efficiency (DRE) standard* — (1) *99.99% DRE.* You must achieve a DRE of 99.99% for each principle organic hazardous constituent (POHC) designated under paragraph (3) of this Condition. You must calculate DRE for each POHC from the following equation:~~

~~$DRE = [1 - (W_{out} \div W_{in})] \times 100\%$~~

~~Where:~~

~~$W_{in}$ = mass feedrate of one POHC in a waste feedstream; and~~

~~$W_{out}$ = mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere.~~

~~(3) *Principal organic hazardous constituents (POHCs).* (i) You must treat the POHCs in the waste feed that you specify under paragraph (3)(ii) of this Condition to the extent required by paragraph (1) in this Condition.~~

~~(ii) You must specify one or more POHCs that are representative of the most difficult to destroy organic compounds in your hazardous waste feedstream. You must base this specification on the degree of difficulty of incineration of the organic constituents in the hazardous waste and on their concentration or mass in the hazardous waste feed, considering the results of hazardous waste analyses or other data and information.~~

~~**[45CSR34, 40CFR§63.1217(c) (480E and 480F)]**~~

~~4.1.15. **Operating Parameter Limits** Pending approval of the Notification of Compliance by EPA and WVDEP, for the purpose of ensuring compliance with the emission standards of Conditions 4.1.13 and 4.1.14, the following operating parameter limits (OPLs) established in the Notification of Compliance shall be maintained, except as authorized by law. If the operating parameter limits are revised in order to meet EPA and WV DEP approval, the permittee shall immediately comply with the approved limits and within 30 days apply for modification to update this Condition in the Title V Permit.~~

**~~From the August 2009 Notification of Compliance~~**

| ~~**Parameter**~~ | ~~**OPL**~~ | ~~**Averaging Period ***~~ | ~~**Emission Standard**~~ |
|---|---|---|---|
| ~~Minimum combustion chamber temperature~~ | ~~459°F~~ | ~~HRA~~ | ~~HC, DRE, D/F~~ |
| ~~Maximum Steam Production Rate~~ | ~~134 klb/hr~~ | ~~HRA~~ | ~~HC, DRE, D/F, PM, chromium~~ |
| ~~Maximum total hazardous waste feed rate~~ | ~~5,160 lb/hr~~ | ~~HRA~~ | ~~HC, DRE, D/F~~ |
| ~~Maximum stack gas carbon monoxide concentration~~ | ~~100 ppmv, dry~~ | ~~HRA~~ | ~~HC, DRE~~ |
| ~~Maximum mercury thermal concentration~~ | ~~4.2E-05 lb/MMBtu~~ | ~~12-hr RA~~ | ~~Mercury~~ |
| ~~Maximum ash feed rate~~ | ~~121 lb/hr~~ | ~~12-hr RA~~ | ~~PM~~ |
| ~~Maximum semivolatile metals~~ | ~~8.2E-05 lb/MMBtu~~ | ~~12-hr RA~~ | ~~SVM~~ |

| ~~**Parameter**~~ | ~~**OPL**~~ | ~~**Averaging Period ***~~ | ~~**Emission Standard**~~ |
|---|---|---|---|
| ~~thermal concentration~~ | | | |
| ~~Maximum chromium thermal concentration~~ | ~~2.7E-03 lb/MMBtu~~ | ~~12-hr RA~~ | ~~Chromium~~ |
| ~~Maximum chlorine feed rate~~ | ~~31.2 lb/hr~~ | ~~12-hr RA~~ | ~~Chromium, HCl/$Cl_2$~~ |
| ~~Maximum electrostatic precipitator inlet temperature~~ | ~~429°F~~ | ~~HRA~~ | ~~D/F, chromium~~ |
| ~~Minimum electrostatic precipitator total power~~ | ~~13.5 kW~~ | ~~HRA~~ | ~~PM, chromium~~ |
| ~~Maximum combustion chamber pressure~~ | ~~0.0 in. W.C.~~ | ~~Instantaneous~~ | ~~Fugitive Emissions~~ |

~~*** HRA: Hourly Rolling Average; 12-HRA: 12 Hour Rolling Average**~~
~~**[45CSR34, 40CFR§63.1206(c)(1)(v) (480E and 480F)]**~~

~~4.1.16. *Compliance with subcategory standards for liquid fuel boilers.* You must comply with the mercury, semivolatile metals, low volatile metals, and hydrogen chloride and chlorine standards for liquid fuel boilers under 40CFR§63.1217 as follows:~~

~~(i) You must determine the as-fired heating value of each batch of hazardous waste fired by each firing system of the boiler so that you know the mass-weighted heating value of the hazardous waste fired at all times.~~

~~(iv) The permittee shall comply at all times with the more stringent operating requirements that ensure compliance with both the thermal emission concentration standards and the mass or volume emission concentration standards. The more stringent operation requirements are the thermal emission concentration standards (lb/million BTU) under 40CFR§63.1217.~~

~~**[45CSR34, 40CFR§§63.1206(b)(16)(i) and (iv) (480E and 480F)]**~~

~~4.1.17. **Automatic Waste Feed Cutoffs** The permittee shall operate the liquid fuel feed boilers with a functioning system that immediately and automatically cuts off the hazardous waste feed when the operating parameter limits specified in Condition 4.1.15 are exceeded or emission standards monitored by a CEMS are exceeded. The permittee has the option of ramping down waste feed in certain circumstances in accordance with 40CFR§63.1206(c)(3)(viii). An immediate and automatic cutoff shall also be triggered when the span value of any continuous process monitor is exceeded. Any malfunctions of the monitoring equipment or automatic waste feed cutoff system shall also initiate an immediate and automatic cutoff of hazardous waste feed.~~
~~**[45CSR34, 40CFR§63.1206(c)(3) (480E and 480F)]**~~

~~4.1.18. The permittee shall comply with the changes in design, operation or maintenance provisions in accordance with 40CFR§63.1206(b)(5)~~
~~**[45CSR34, 40CFR§63.1206(b)(5) (480E and 480F)]**~~

~~4.1.19. The permittee shall adhere to the combustion system leak provisions listed within 40CFR§63.1206(c)(5).~~
~~**[45CSR34, 40CFR§63.1206(c)(5) (480E and 480F)]**~~

~~4.1.20. The permittee shall develop and maintain an operator training and certification program in accordance with 40CFR§63.1206(c)(6). Records pertaining to the operator training and certification program shall be documented within the operating record.~~
~~**[45CSR34, 40 C.F.R. §63.1206(c)(6) (480E and 480F)]**~~

~~4.1.21. The permittee shall implement and maintain an operation and maintenance plan as specified by 40CFR§63.1206(c)(7).~~
~~**[45CSR34, 40CFR§63.1206(c)(7) (480E and 480F)]**~~

~~4.1.22. The permittee must develop and implement a feed stream analysis plan and record it in the operating record in accordance with 40CFR§63.1209(c)(2).~~
~~**[45CSR34, 40CFR§63.1209(c)(2) (480E and 480F)]**~~

~~4.1.23. The permittee must prepare a continuous monitoring system (CMS) performance evaluation plan in accordance with 40CFR§63.8(d)(2) & Appendix to 40CFR63, Subpart EEE "Quality Assurance Procedures for Continuous Emissions Monitors Used for Hazardous Waste Combustors".~~
~~**[45CSR34, 40CFR§63.8(d)(2) & Appendix to 40 C.F.R. 63, Subpart EEE (480E and 480F)]**~~

4.1.1. The following conditions and requirements are specific to Boiler 13, and Boiler 14:

a. CO emissions emitted to the atmosphere from each boiler shall not exceed 6.59 pounds per hour with an annual rate not to exceed 28.86 tpy. Compliance with this limit shall be satisfied by optimization of the CO concentration from the unit during the tune-up as required in item d and satisfying item f of this condition.

b. $NO_x$ emissions emitted to the atmosphere from each boiler shall not exceed 3.94 pounds per hour with an annual rate not to exceed 17.17 tons per year. Compliance with this limit is satisfied by verifying the manufacturer's $NO_x$ emission setting and/or specification during the tune-up of the unit. Compliance with the annual limit is satisfied by complying with item f of this condition.

c. Carbon dioxide equivalent emitted to the atmosphere from each boiler shall not exceed 9,411.76 pounds per hour with an annual rate not to exceed 41,223.51 tons per year. Compliance with the annual limit is satisfied by complying with item f of this condition.

d. An annual tune-up with the initial tune-up for each unit required to complete by not later than January 31, 2013 (40 CFR §63.7510(g) in accordance with the applicable requirements of 40 CFR 63, Subpart DDDDD. If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of re-startup. Subsequent tune-ups shall be no more than 13 months after previous tune-up and shall consist of the following

i. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (permittee may delay the burner inspection until the next scheduled unit shutdown). At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;

ii. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;

iii. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit

shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection;

iv. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, which includes the manufacturer's $NO_x$ concentration specification of 30 ppm;

v. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and maintain records containing the following information. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of each unit and a description of any corrective actions taken as a part of the tune-up.

**[45CSR13, R13-3111 (Conditions 4.1.1(a) through (d)), 45CSR34, 40 CFR §63.7500(a)(1), §63.7505(a), §63.7515(d), §63.7540(a)(10), and Table 3 to Subpart DDDDD of 40 CFR Part 63—Work Practice Standards]**

e. Each boiler shall only be fired with pipeline quality natural gas. This condition satisfies compliance with the limitations of 45CSR§2-3.1., 45CSR§2-4.1.b., and 45CSR§10-3.2.c.
**[45CSR13, R13-3111 (Condition 4.1.1(e)), 45CSR§2A-3.1.a, 45CSR§10-10.3, and 45CSR§10A-3.1.b.]**

f. Each boiler shall be designed or constructed with a maximum design heat input of 80 MMBtu/hr. Compliance with this limit for each boiler shall be satisfied by limiting the annual consumption of natural gas to 692 MM cubic feet, measured as a rolling 12 month rolling total.
**[45CSR13, R13-3111 (Condition 4.1.1(f)]**

4.1.2. The permittee shall conduct a one-time energy assessment of the facility which shall include Boilers 13 and 14, as specified in Table 3 of 40 CFR 63 Subpart DDDDD. Pursuant to 40 CFR §63.7510(e), the energy assessment shall be completed not later than January 31, 2016.
**[45CSR13, R13-3111 (Condition 4.1.2), 45CSR34, 40 CFR §63.7500(a)(1), §63.7505(a), and Table 3 of 40 CFR 63 Subpart DDDDD]**

4.1.3. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment related to Boilers 13 and 14, 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.
**[45CSR13, R13-3111 (Condition 4.1.3) 45CSR§13-5.11.]**

4.1.4. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.
**[45CSR§2-3.1.]**

## 4.2. Monitoring Requirements

N/A

~~4.2.1. Compliance with the particulate matter limits of 4.1.1. shall be determined by~~

~~a. Material balances around the HEPA filter.~~

~~b. The HEPA filter shall be inspected monthly.~~

~~**[45CSR§30.5.1.c (480H)]**~~

~~4.2.2. Compliance with the opacity limit of 4.1.3. shall be shown by following the Rule 2 Monitoring Plan, submitted by the Permittee on February 28, 2001. This Plan is attached as Attachment A to this Permit.~~
~~**[45CSR§2-8.2.a. (480E, 480F, 480G)]**~~

~~4.2.3. Compliance with the SO2 limit of 4.1.8. shall be shown by following the Rule 10 Monitoring Plan, submitted by the Permittee on February 28, 2001. This Plan is attached as Attachment A to this Permit.~~
~~**[45CSR§10-8.2.c, 45CSR§10A-6.2. (480E, 480F, 480G)]**~~

~~4.2.4. At least monthly, visual emission checks of each emission point subject to an opacity limit shall be conducted. For units emitting directly into the open air from points other than a stack outlet, visible emissions are to include visible fugitive dust emissions that leave the plant site boundaries. These checks shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the unit has visible emissions using procedures outlined in 40 CFR 60, Appendix A, Method 22. If sources of visible emissions are identified during the survey, or at any other time, the permittee shall conduct an evaluation as outlined in 45CSR§7A-2.1.a,b within twenty-four (24) hours. However, a 45CSR§7A-2.1.a,b evaluation shall not be required more than once per month per emission unit. A 45CSR§7A-2.1.a,b evaluation shall not be required if the visible emission condition is corrected in a timely manner and the units are operated at normal operating conditions. A record of each visible emission check required above shall be maintained on site for a period of no less than five (5) years. Said record shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emissions requirement, the results of the check, what action(s), if any, was/were taken, and the name of the observer.~~
~~**[45CSR§30-5.1.c (480H)]**~~

~~4.2.5. *Feedrate of mercury.*~~

~~For liquid fuel boilers, when complying with the mercury emission standards of 40CFR§63.1217, you must establish a rolling average limit for the mercury feedrate as follows on an averaging period not to exceed an annual rolling average:~~

~~(A) You must calculate a mercury system removal efficiency for each test run and calculate the average system removal efficiency of the test run averages. If emissions exceed the mercury emission standard during the comprehensive performance test, it is not a violation because the averaging period for the mercury emission standard is (not-to-exceed) one year and compliance is based on compliance with the mercury feedrate limit with an averaging period not-to-exceed one year.~~

~~(B) If you burn hazardous waste with a heating value of 10,000 Btu/lb or greater, you must calculate the mercury feedrate limit as follows:~~

~~(*1*) The mercury feedrate limit is the emission standard divided by [1 − system removal efficiency].~~

~~(*2*) The mercury feedrate limit is a hazardous waste thermal concentration limit expressed as pounds of mercury in hazardous waste feedstreams per million Btu of hazardous waste fired.~~

~~(*3*) You must comply with the hazardous waste mercury thermal concentration limit by determining the feedrate of mercury in all hazardous waste feedstreams (lb/hr) at least once a minute and the hazardous waste thermal feedrate (MM Btu/hr) at least once a minute to calculate a 60-minute average thermal emission concentration as [hazardous waste mercury feedrate (lb/hr) / hazardous waste thermal feedrate (MM Btu/hr)].~~

~~(*4*) You must calculate a rolling average hazardous waste mercury thermal concentration that is updated each hour.~~

~~(*5*) If you select an averaging period for the feedrate limit that is greater than a 12-hour rolling average, you must calculate the initial rolling average as though you had selected a 12-hour rolling average, as provided by 40CFR§63.1209(b)(5)(i) of this section. Thereafter, you must calculate rolling averages using either one-minute or one-hour updates. Hourly updates shall be calculated using the average of the one-minute average data for the preceding hour. For the period beginning with initial operation under this standard until the source has operated for the full averaging period that you select, the average feedrate shall be based only on actual operation under this standard.~~

~~(C) If you burn hazardous waste with a heating value of less than 10,000 Btu/lb, you must calculate the mercury feedrate limit as follows:~~

~~(*1*) You must calculate the mercury feedrate limit as the mercury emission standard divided by [1 − System Removal Efficiency].~~

~~(*2*) The feedrate limit is expressed as a mass concentration per unit volume of stack gas (µgm/dscm) and is converted to a mass feedrate (lb/hr) by multiplying it by the average stack gas flowrate of the test run averages.~~

~~(*3*) You must comply with the feedrate limit by determining the mercury feedrate (lb/hr) at least once a minute to calculate a 60-minute average feedrate.~~

~~(*4*) You must update the rolling average feedrate each hour with this 60-minute feedrate measurement.~~

~~(*5*) If you select an averaging period for the feedrate limit that is greater than a 12-hour rolling average, you must calculate the initial rolling average as though you had selected a 12-hour rolling average, as provided by 40CFR§1209(b)(5)(i). Thereafter, you must calculate rolling averages using either one-minute or one-hour updates. Hourly updates shall be calculated using the average of the one-minute average data for the preceding hour. For the period beginning with initial operation under this standard until the source has operated for the full averaging period that you select, the average feedrate shall be based only on actual operation under this standard.~~

~~**[45CSR34, 40CFR§§63.1209(l)(1)(i) and (ii)(A)-(C) (480E and 480F)]**~~

~~4.2.6. *Hydrogen Chloride and Chlorine Gas*~~

~~(A) *Boilers that feed hazardous waste with a heating value not less than 10,000 Btu/lb.*~~

~~(*1*) The feedrate limit is a hazardous waste thermal concentration limit expressed as pounds of chlorine (organic and inorganic) in all hazardous waste feedstreams per million Btu of hazardous waste fed to the boiler.~~

~~(*2*) You must establish a 12-hour rolling average feedrate limit as the average of the test run averages.~~

~~(*3*) You must comply with the feedrate limit by determining the mass feedrate of hazardous waste feedstreams (lb/hr) at least once a minute and by knowing the chlorine content (organic and inorganic, lb of chlorine/lb of hazardous waste) and heating value (Btu/lb) of hazardous waste feedstreams at all times to calculate a 1-minute average feedrate measurement as [hazardous waste chlorine content (lb of chlorine/lb of hazardous waste feed)/hazardous waste heating value (Btu/lb of hazardous waste)]. You must update the rolling average feedrate each hour with this 60-minute average feedrate measurement.~~

~~(B) *Boilers that feed hazardous waste with a heating value less than 10,000 Btu/lb.* You must establish a 12-hour rolling average limit for the total feedrate of chlorine (organic and inorganic) in all feedstreams as the average of the test run averages. You must update the rolling average feedrate each hour with a 60-minute average feedrate measurement.~~

~~**[45CSR34, 40CFR§§63.1209(o)(1)(ii)(A) and (B) (480E and 480F)]**~~

~~4.2.7. *Maximum ash feedrate.* Owners and operators of hazardous waste incinerators, solid fuel boilers, and liquid fuel boilers must establish a maximum ash feedrate limit as a 12-hour rolling average based on the average of the~~

~~test run averages. This requirement is waived, however, if you comply with the particulate matter detection system requirements under 40CFR§63.1206(c)(9).~~
~~**[45CSR34, 40CFR§63.1209(m)(3) (480E and 480F)]**~~

~~4.2.8. *Liquid fuel boilers under 40CFR§63.1217* (A) *Semivolatile metals.* You must establish a rolling average limit for the semivolatile metal feedrate as follows on an averaging period not to exceed an annual rolling average.~~

~~(*1*) *System removal efficiency*. You must calculate a semivolatile metal system removal efficiency for each test run and calculate the average system removal efficiency of the test run averages. If emissions exceed the semivolatile metal emission standard during the comprehensive performance test, it is not a violation because the averaging period for the semivolatile metal emission standard is one year and compliance is based on compliance with the semivolatile metal feedrate limit that has an averaging period not to exceed an annual rolling average.~~

~~(*2*) *Boilers that feed hazardous waste with a heating value of 10,000 Btu/lb or greater*. You must calculate the semivolatile metal feedrate limit as the semivolatile metal emission standard divided by [1 – System Removal Efficiency].~~

~~(*i*) The feedrate limit is a hazardous waste thermal concentration limit expressed as pounds of semivolatile metals in all hazardous waste feedstreams per million Btu of hazardous waste fed to the boiler.~~

~~(*ii*) You must comply with the hazardous waste semivolatile metal thermal concentration limit by determining the feedrate of semivolatile metal in all hazardous waste feedstreams (lb/hr) and the hazardous waste thermal feedrate (MM Btu/hr) at least once a minute to calculate a 60-minute average thermal emission concentration as [hazardous waste semivolatile metal feedrate (lb/hr) / hazardous waste thermal feedrate (MM Btu/hr)].~~

~~(*iii*) You must calculate a rolling average hazardous waste semivolatile metal thermal concentration that is updated each hour.~~

~~(*iv*) If you select an averaging period for the feedrate limit that is greater than a 12-hour rolling average, you must calculate the initial rolling average as though you had selected a 12-hour rolling average, as provided by 40CFR§63.1209(b)(5)(i). Thereafter, you must calculate rolling averages using either one-minute or one-hour updates. Hourly updates shall be calculated using the average of the one-minute average data for the preceding hour. For the period beginning with initial operation under this standard until the source has operated for the full averaging period that you select, the average feedrate shall be based only on actual operation under this standard.~~

~~(*3*) *Boilers that feed hazardous waste with a heating value less than 10,000 Btu/lb*. (*i*) You must calculate the semivolatile metal feedrate limit as the semivolatile metal emission standard divided by [1 – System Removal Efficiency].~~

~~(*ii*) The feedrate limit is expressed as a mass concentration per unit volume of stack gas (µgm/dscm) and is converted to a mass feedrate (lb/hr) by multiplying it by the average stack gas flowrate (dscm/hr) of the test run averages.~~

~~(*iii*) You must comply with the feedrate limit by determining the semivolatile metal feedrate (lb/hr) at least once a minute to calculate a 60-minute average feedrate.~~

~~(*iv*) You must update the rolling average feedrate each hour with this 60-minute feedrate measurement.~~

~~(*v*) If you select an averaging period for the feedrate limit that is greater than a 12-hour rolling average, you must calculate the initial rolling average as though you had selected a 12-hour rolling average, as provided by 40CFR§63.1209(b)(5)(i). Thereafter, you must calculate rolling averages using either one-minute or one-hour updates. Hourly updates shall be calculated using the average of the one-minute average data for the preceding hour. For the period beginning with initial operation under this standard until the source has operated for the full~~

~~averaging period that you select, the average feedrate shall be based only on actual operation under this standard.~~

~~**[45CSR34, 40CFR§63.1209(n)(2)(v)(A) (480E and 480F)]**~~

~~4.2.9. *Chromium*~~

~~(*1*) *Boilers that feed hazardous waste with a heating value of 10,000 Btu/lb or greater.*~~

~~(*i*) The 12-hour rolling average feedrate limit is a hazardous waste thermal concentration limit expressed as pounds of chromium in all hazardous waste feedstreams per million Btu of hazardous waste fed to the boiler. You must establish the 12-hour rolling average feedrate limit as the average of the test run averages.~~

~~(*ii*) You must comply with the hazardous waste chromium thermal concentration limit by determining the feedrate of chromium in all hazardous waste feedstreams (lb/hr) and the hazardous waste thermal feedrate (MMBtu/hr) at least once each minute as [hazardous waste chromium feedrate (lb/hr)/hazardous waste thermal feedrate (MMBtu/hr)].~~

~~(*2*) *Boilers that feed hazardous waste with a heating value less than 10,000 Btu/lb.* You must establish a 12-hour rolling average limit for the total feedrate (lb/hr) of chromium in all feedstreams as the average of the test run averages.~~

~~**[45CSR34, 40CFR§63.1209(n)(2)(v)(B) (480E and 480F)]**~~

~~4.2.10. The permittee shall install, calibrate, maintain, and operate continuous emissions monitoring systems (CEMS) for CO and $O_2$ in accordance with 40 C.F.R. §63.1209(a).~~
~~**[45CSR34, 40CFR§63.1209(a) (480E and 480F)]**~~

~~4.2.11. The permittee shall comply with the other continuous monitoring systems (CMS) requirements of 40CFR§63.1209(b).~~
~~**[45CSR34, 40CFR§63.1209(b) (480E and 480F)]**~~

~~4.2.12. The permittee shall comply with the performance evaluation requirements of 40CFR§63.1209(d).~~
~~**[45CSR34, 40CFR§63.1209(d) (480E and 480F)]**~~

~~4.2.13. The permit shall comply with the operation and maintenance of continuous monitoring systems in accordance with 40CFR§63.1209(f).~~
~~**[45CSR34, 40CFR§63.1209(f) (480E and 480F)]**~~

~~4.2.14. The permittee shall comply with the monitoring provisions identified in the Documentation of Compliance Table 6.1 and provided in Condition 4.1.15.~~
~~**[45CSR34, 40CFR§63.1209 (j), (k), (o) and (p), and 40CFR§63.1207(m)(4)(i) (480E and 480F)]**~~

## 4.3. Testing Requirements

N/A

~~4.3.1. The owner or operator shall conduct tests to determine the compliance of Boilers 3, 4, and 5 with the particulate matter mass emission limitations. Such tests shall be conducted in accordance with the appropriate method set forth in 45CSR2 Appendix – Compliance Test Procedures for 45CSR2 or other equivalent EPA approved method approved by the Secretary. Such tests shall be conducted in accordance with the schedule set forth in the following table. The next test shall be performed before August 29, 2011.~~

| ~~**Test**~~ | ~~**Test Results**~~ | ~~**Retesting Frequency**~~ |
|---|---|---|

| ~~Test~~ | ~~Test Results~~ | ~~Retesting Frequency~~ |
|---|---|---|
| ~~Annual~~ | ~~after three successive tests indicate mass emission rates ≤50% of weight emission standard~~ | ~~Once/3 years~~ |
| ~~Annual~~ | ~~after two successive tests indicate mass emission rates < 80 % of weight emission standard~~ | ~~Once/2 years~~ |
| ~~Annual~~ | ~~any tests indicates a mass emission rate ≥ 80% of weight emission standard~~ | ~~Annual~~ |
| ~~Once/2 years~~ | ~~after two successive tests indicate mass emission rates ≤ 50% of weight emission standard~~ | ~~Once/3 years~~ |
| ~~Once/2 years~~ | ~~any tests indicates a mass emission rate < 80 % of weight emission standard~~ | ~~Once/2 years~~ |
| ~~Once/2 years~~ | ~~any tests indicates a mass emission rate ≥ 80% of weight emission standard~~ | ~~Annual~~ |
| ~~Once/3 years~~ | ~~any tests indicates a mass emission rate ≤ 50% of weight emission standard~~ | ~~Once/3 years~~ |
| ~~Once/3 years~~ | ~~any test indicates mass emission rates between 50% and 80 % of weight emission standard~~ | ~~Once/2 years~~ |
| ~~Once/3 years~~ | ~~any test indicates a mass emission rate ≥ 80% of weight emission standard~~ | ~~Annual~~ |

~~**[45CSR§2-8.1., 45CSR§2A-5.2. (480E, 480F, 480G)]**~~

~~4.3.2. The permittee shall adhere to the frequency of testing requirements in accordance with 40CFR§63.1207(d).~~ ~~**[45CSR34, 40CFR§63.1207(d) (480E and 480F)]**~~

## 4.4. Recordkeeping Requirements

~~4.4.1. Records of monitored data established in the monitoring plan (see Attachment A) shall be maintained on site and shall be made available to the Secretary or his duly authorized representative upon request.~~
~~**[45CSR§2-8.3.a. (480E, 480F, 480G)]**~~

~~4.4.2. Records of the operating schedule and the quantity and quality of fuel consumed in each fuel burning unit, shall be maintained on-site in a manner to be established by the Secretary and made available to the Secretary or his duly authorized representative upon request.~~
~~**[45CSR§2-8.3.c. (480E, 480F, 480G)]**~~

~~4.4.3. The permittee must maintain a copy of the Start-up, Shutdown, and Malfunction (SSM) Plan on site.~~
~~**[45CSR34, 40CFR§63.1206(c)(2)(iv) (480E and 480F)]**~~

~~4.4.4. The permittee must keep a copy of all data recorded by continuous monitoring systems (CMS) (including monitoring data recorded during unavoidable CMS breakdowns and out-of-control periods) and copies of all notification, reports, plans and other documents submitted to the Administrator in a form suitable and readily available for expeditious inspection and review.~~
~~**[45CSR34, 40 C.F.R. §63.10(b) & (c) (480E and 480F)]**~~

~~4.4.5. The permittee must maintain a record of changes that will not adversely affect compliance with the emission standards or operating requirements, and must document the change upon making such change.~~
~~**[45CSR34, 40 C.F.R. §63.1206(b)(5)(ii) (480E and 480F)]**~~

~~4.4.6. The permittee shall keep a copy of any documentation of investigation and evaluation of excessive exceedences during malfunctions.~~
~~**[45CSR34, 40 C.F.R. §63.1206(c)(2)(v)(A)(3)(ii) (480E and 480F)]**~~

~~4.4.7. The permittee shall keep a copy of any documentation of investigation and corrective measures taken for any automatic waste feed cutoffs that result in an exceedance of an emission standard or operating parameter limit.~~
~~**[45CSR34, 40 C.F.R. §63.1206(c)(3)(v) (480E and 480F)]**~~

~~4.4.8. The permittee shall keep a copy of any documentation and results of the automatic waste feed cutoff operability testing.~~
~~**[45CSR34, 40 C.F.R. §63.1206(c)(3)(vii) (480E and 480F)]**~~

~~4.4.9. The permittee shall keep a copy of the Operator Training and Certification program.~~
~~**[45CSR34, 40 C.F.R. §63.1206(c)(6)(vii) (480E and 480F)]**~~

~~4.4.10. The permittee shall keep a copy of the Operation and Maintenance (O&M) Plan.~~
~~**[45CSR34, 40 C.F.R. §63.1206(c)(7)(iv) (480E and 480F)]**~~

~~4.4.11. The permittee shall keep a copy of the Feedstream Analysis Plan.~~
~~**[45CSR34, 40 C.F.R. §63.1209(c)(2) (480E and 480F)]**~~

~~4.4.12. The permittee shall adhere to the Recordkeeping Requirements for Continuous Monitoring Systems provided in 40 C.F.R. §63.10(c).~~
~~**[45CSR34, 40 C.F.R. §63.10(c) (480E and 480F)]**~~

~~4.4.13. The permittee shall record the Emergency Safety Vent operating plan in the operating record as specified in 40 C.F.R. §63.1206(c)(4)(ii)(A).~~
~~**[45CSR34, 40 C.F.R. §63.1206(c)(4)(ii)(A) (480E and 480F)]**~~

~~4.4.14. The permittee shall record the corrective measures for any emergency safety vent opening in the operating record as specified in 40 C.F.R. §63.1206(c)(4)(iii).~~
~~**[45CSR34, 40 C.F.R. §63.1206(c)(4)(iii) (480E and 480F)]**~~

4.4.1. **Record of Monitoring.** The permittee 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.

4.4.2. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment related to Boilers 13 and 14, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.

4.4.3. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment related to Boilers 13 and 14, the permittee 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.

4.4.4. The permittee shall keep the following records in accordance with 40CFR§63.7555. This includes but not limited to the following information during the tune up as required in Condition 4.1.1.d. and 40 CFR §63.7540:

a. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater. If concentrations of $NO_x$ were taken during the tune-up of the unit, record of such measurements shall be included;

b. A description of any corrective actions taken as a part of the tune-up
**[45CSR13, R13-3111 (Condition 4.4.4), 45CSR34, 40 CFR §§63.7540(a)(10)(vi)(A) and (B) and 63.7555]**

4.4.5. For each calendar month, the permittee shall record the hours of operation and amount of natural gas consumed by each boiler and shall calculate the rolling yearly total of natural gas consumed. The permittee may record the total amount of natural gas consumed by Boiler 13 and Boiler 14 on a combined basis. If so, compliance with Condition 4.1.1.f. is satisfied when the 12 month rolling total is less than 1384 MM cubic feet of natural gas. Such records shall be maintained in accordance with Condition 3.4.2. of this permit.
**[45CSR13, R13-3111 (Condition 4.2.1) 45CSR§2A-7.1.a.1., 45CSR16, 40 CFR §60.48(c)(g)(2)]**

## 4.5. Reporting Requirements

~~4.5.1. A periodic exception report shall be submitted to the Secretary, in a manner and at a frequency to be established by the Secretary. Compliance with this periodic exception reporting requirement shall be demonstrated as outlined the DAQ "45CSR2 Monitoring Plan" attached in Attachment A of this permit.~~
~~**[45CSR§2-8.3.b. (480E, 480F, 480G)]**~~

~~4.5.2. Excess opacity periods resulting from any malfunction of Boilers 3, 4, or 5 or their air pollution control equipment, meeting the following conditions, may be reported on a quarterly basis unless otherwise required by the Secretary:~~

~~a. The excess opacity period does not exceed thirty (30) minutes within any twenty-four (24) hour period; and~~

~~b. Excess opacity does not exceed forty percent (40%).~~

~~**[45CSR§2-9.3.a. (480E, 480F, 480G)]**~~

~~4.5.3. Except as provided in permit Condition 4.5.2. above, the owner or operator shall report to the Secretary by telephone, telefax, or e-mail any malfunction of Boilers 3, 4, or 5, or their associated air pollution control equipment, which results in any excess particulate matter or excess opacity, by the end of the next business day after becoming aware of such condition. The owner or operator shall file a certified written report concerning the malfunction with the Secretary within thirty (30) days providing the following information:~~
~~a. A detailed explanation of the factors involved or causes of the malfunction;~~

~~b. The date, and time of duration (with starting and ending times) of the period of excess emissions;~~

~~c. An estimate of the mass of excess emissions discharged during the malfunction period;~~

~~d. The maximum opacity measured or observed during the malfunction;~~

~~e. Immediate remedial actions taken at the time of the malfunction to correct or mitigate the effects of the malfunction; and~~

~~f. A detailed explanation of the corrective measures or program that will be implemented to prevent a recurrence of the malfunction and a schedule for such implementation.~~

~~**[45CSR§2-9.3.b. (480E, 480F, 480G)]**~~

~~4.5.4. The permittee shall comply with the reporting requirements summarized below:~~

| ~~**Reference**~~ | ~~**Report**~~ |
|---|---|
| ~~40CFR§63.10(d)(4)~~ | ~~Compliance progress reports, if required as a condition of an extension of the compliance date granted under §63.6(i).~~ |
| ~~40CFR§63.10(d)(5)(i)~~ | ~~Periodic startup, shutdown, and malfunction reports.~~ |
| ~~40CFR§63.10(d)(5)(ii)~~ | ~~Immediate startup, shutdown, and malfunction reports.~~ |
| ~~40CFR§63.10(e)(3)~~ | ~~Excessive emissions and continuous monitoring system performance report and summary~~ |

| | |
|---|---|
| | ~~report.~~ |
| ~~40CFR§63.1206(c)(2)(ii)(B)~~ | ~~Startup, shutdown, and malfunction plan.~~ |
| ~~40CFR§63.1206(c)(3)(vi)~~ | ~~Excessive exceedances reports.~~ |
| ~~40CFR§63.1206(c)(4)(iv)~~ | ~~Emergency safety vent opening reports.~~ |

~~**[45CSR34, 40CFR§63.1211(a) (480E and 480F)]**~~

4.5.1. The permittee shall submit annual "Compliance Reports" to the Director with the first report being submitted by no later than January 31, 2017 and subsequent reports submitted by no later than January 31 of the following year. Such reports shall contain the information specified in 40 CFR §§63.7550(c)(5) (i)through (iv) and (xiv) which are:

a. Permittee and facility name, and address;

b. Process unit information, emission limitations, and operating limitations;

c. Date of report and beginning and ending dates of the reporting period;

d. The total operating time during the reporting period of each affected unit;

e. Include the date of the most recent tune-up for each boiler; and

f. Include the date of the most recent burner inspection if it was not done annually and was delayed until the next scheduled or unscheduled unit shutdown.

**[45CSR13, R13-3111 (Condition 4.5.1), 45CSR34, 40CFR§§63.7550(a)-(c)]**

## 4.6. Compliance Plan

N/A

## 5.0 Source-Specific Requirements [Powerhouse No. 2]

### 5.1. Limitations and Standards

5.1.1. Emissions from all three boilers (Boilers 10, 11, and 12) shall not exceed the following:

$SO_2$ 1,680 lbs/hr
$NO_x$ 789 lbs/hr
HC 13 lbs/hr
PM 50 lbs/hr
CO 44 lbs/hr

**[Compliance with the emission limits from 45CSR13, Permit No. R13-0277 will also show compliance with 45CSR§2-4.1.b., 45CSR§7-4.1., and 45CSR§10-3.2.c. (480A)]**

5.1.2. The amount of coal usage for the three boilers (Boilers 10, 11, and 12) shall not exceed 317,000 tons per calendar year.
**[45CSR13, Permit No. R13-0277 (480A)]**

5.1.3. Particulate Matter emissions from each baghouse (L-485, N-485) of the coal bunker storage room shall not exceed 1.9 lbs/hr.
**[Compliance with the emission limits from 45CSR13, Permit No. R13-0277 will also show compliance with 45CSR§7-4.1. (485L, 485N)]**

5.1.4. The coal used for the boilers 10, 11, and 12 shall not have a sulfur content greater than 1.2%.
**[45CSR13, Permit No. R13-0277 (480A)]**

5.1.5. The permittee shall control particulate emissions at all times that flyash storage silo D-910 is in operation with baghouses D-900 and D-901 and bin filter D-905.
**[45CSR13, Permit No. R13-2001 (Condition A.1.) (485P, 485Q, 485O)]**

5.1.6. Emissions to the atmosphere from flyash storage silo D-910 shall not exceed:

| Emission Point ID No. | Control Device ID No. & Description | Pollutant | Emission Limit | |
|---|---|---|---|---|
| | | | Pph | Tpy |
| 485O | D-905 (bin filter) | $PM_{10}$ | 1.6 | 6.75 |
| 485P | D-900 (baghouse) | $PM_{10}$ | 4.6 | 14.23* |
| 485Q | D-901 (baghouse) | $PM_{10}$ | 4.6 | |

* Total annual emission limit for the two emission points.

**[45CSR§7-4.1, 45CSR13, Permit No. R13-2001 (Condition A.2.) (485P, 485Q, 485O)]**

5.1.7. The annual throughput through the flyash storage silo D-910 shall not exceed 33,150 tons of flyash per year on the basis of a rolling twelve month total.
**[45CSR13, Permit No. R13-2001 (Condition A.3.) (485O)]**

5.1.8. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity.
**[45CSR§7-3.1., 45CSR13, Permit No. R13-2001 (Condition B.4.) (485L, 485N, 485M, 485R, 485O, 485P, 485Q, 480I)]**

5.1.9. The provisions of 5.1.8 shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.
**[45CSR§7-3.2., 45CSR13, Permit No. R13-2001 (Condition B.4.) (485L, 485N, 485M, 485R, 485O, 485P, 485Q, 480I)]**

5.1.10. No person shall cause, suffer, allow, or permit emissions of smoke and/or particulate matter into the open air from any storage structure associated with any manufacturing process.
**[45CSR§7-3.7., 45CSR13, Permit No. R13-2001 (Condition B.4.) (485R, 485O, 485L, 485N, 485M)]**

5.1.11. No person shall cause, suffer, allow or permit any manufacturing process or storage structure generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable.
**[45CSR§7-5.1., 45CSR13, Permit No. R13-2001 (Condition B.4.) (485R, 485O, 485L, 485N, 485M)]**

5.1.12. The owner or operator of a plant shall maintain particulate matter control of the plant premises, and plant owned, leased or controlled access roads, by paving, application of asphalt, chemical dust suppressants or other suitable dust control measures. Good operating practices shall be implemented and when necessary particulate matter suppressants shall be applied in relation to stockpiling and general material handling to minimize particulate matter generation and atmospheric entrainment.
**[45CSR§7-5.2., 45CSR13, Permit No. R13-2001 (Condition B.4.)]**

5.1.13. Due to unavoidable malfunction of equipment, emissions exceeding those set forth in 45CSR7 may be permitted by the Director for periods not to exceed ten (10) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the malfunction. In cases of major equipment failure, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director.
**[45CSR§7-9.1., 45CSR13, Permit No. R13-2001 (Condition B.4.)]**

5.1.14. Emissions to the atmosphere from the lime storage silo system shall be limited to the following:

| Emission Point ID | Pollutant | Vent Time (hr/yr) | Potential Emission (lb/hr) | Potential Emission (lb/yr) | Control Device | Allowable Emission (lb/hr) | Allowable Emission (lb/yr) |
|---|---|---|---|---|---|---|---|
| 485R | PM | 64.0 | 1,144.0 | 73,216.0 | Bin Vent Filter | 11.4 | 732.2 |
| | $PM_{10}$ | | 114.4 | 2,059.2 | | 1.1 | 73.2 |
| | | | | | | | |
| 480I | PM | 1,840.0 | 514.0 | 935,480.0 | Truck Fill Line Filter | 0.5 | 945.8 |
| | $PM_{10}$ | | 51.4 | 93,548.0 | | 0.05 | 94.6 |

**[Compliance with the emission limits from 45CSR13, Permit No. R13-2190 (Condition A.1.) will also show compliance with 45CSR§7-4.1. (485R, 480I)]**

5.1.15. The bin filter, designated as D-941, shall be in good operating condition and shall be operated during any and all times when the lime storage silo, designated as D-940, is being loaded.
**[45CSR13, Permit No. R13-2190 (Condition A.2.) (485R)]**

5.1.16. The truck fill line filter, designated as D-916, shall be in good operating condition and shall be operated during any and all times of pneumatic truck loading.
**[45CSR13, Permit No. R13-2190 (Condition A.3.) (D-916)]**

5.1.17. The permittee shall maintain and operate water sprays on the truck fill line during any and all times when wet flyash and lime are being loaded into trucks.
**[45CSR13, Permit No. R13-2190 (Condition B.3.) (D-916)]**

5.1.18. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.
**[45CSR§2-3.1. (480A)]**

5.1.19. Compliance with the visible emission requirements of Condition 5.1.18 shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 or by using measurements from continuous opacity monitoring systems approved by the Director. The Director may require the installation, calibration, maintenance and operation of continuous opacity monitoring systems and may establish policies for the evaluation of continuous opacity monitoring results and the determination of compliance with the visible emission requirements of 45CSR§2-3.1.
**[45CSR§2-3.2. (480A)]**

5.1.20. No person shall cause, suffer, allow or permit any source of fugitive particulate matter to operate that is not equipped with a fugitive particulate matter control system. This system shall be operated and maintained in such a manner as to minimize the emission of fugitive particulate matter. Sources of fugitive particulate matter associated with fuel burning units shall include, but not be limited to, the following:

Stockpiling of ash or fuel either in the open or in enclosures such as silos;

Transport of ash in vehicles or on conveying systems, to include spillage, tracking or blowing of particulate

matter from or by such vehicles or equipment; and

Ash or fuel handling systems and ash disposal areas.
**[45CSR§2-5.1. (485P, 485Q, 485O, 485L, 485N)]**

5.1.21. The visible emission standards set forth in Condition 5.1.18 shall apply at all times except in periods of start-ups, shutdowns and malfunctions. Where the Director believes that start-ups and shutdowns are excessive in duration and/or frequency, the Director may require an owner or operator to provide a written report demonstrating that such frequent start-ups and shutdowns are necessary.
**[45CSR§2-9.1. (480A)]**

5.1.22. At all times, including periods of start-ups, shutdowns and malfunctions, owners and operators shall, to the extent practicable, maintain and operate any fuel burning unit(s) including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, visible emission observations, review of operating and maintenance procedures and inspection of the source.
**[45CSR§2-9.2. (480A)]**

5.1.23. Compliance with the allowable sulfur dioxide emission limitations from Condition 5.1.1 for fuel burning units shall be based on a continuous twenty-four (24) hour averaging time. The owner and/or operator of a fuel burning unit shall not allow emissions to exceed the weight emissions standards for sulfur dioxide as set forth in 45CSR10, except during one (1) continuous twenty-four (24) hour period in each calendar month and during this one (1) continuous twenty-four hour period said owner and/or operator shall not allow emissions to exceed such weight emission standards by more than ten percent (10%) without causing a violation of 45CSR10. A continuous twenty-four (24) hour period is defined as one (1) calendar day.
**[45CSR§10-3.8. (480A)]**

5.1.24. Particulate matter emissions from the water softener lime silo shall not exceed 14.0 lbs/hr.
**[45CSR§7-4.1. (480M)]**

5.1.25. The permittee shall maintain and operate water sprays on the truck fill line during any and all times when wet flyash and lime are being loaded into trucks.
**[45CSR13, Permit No. R13-2190 (Condition B.3.) (480I)]**

5.1.26. Except as provided in Condition 5.1.27, the following boilers will be limited to the following:

| Boiler No. | CAIR $NO_x$ Ozone Season Allowance Allocation |
|---|---|
| 10 | 6 |
| 11 | 5 |
| 12 | 6 |

**[45CSR40, Consent Order CO-R40-C-2010-7) (Boilers No. 10, 11, and 12)]**

5.1.27. CAIR $NO_x$ Ozone Season allowances may be banked for future use or transfer in a compliance account or a general account in accordance with Condition 5.1.28.
**[45CSR§40-55.1 (480A)]**

5.1.28. Any CAIR $NO_x$ Ozone Season allowance that is held in a compliance account or a general account will remain in such account unless and until the CAIR $NO_x$ Ozone Season allowance is deducted or transferred under 45CSR§§40-54, 56, or 60-62.
**[45CSR§40-55.2 (Boilers No. 10, 11, and 12)]**

5.1.29. If the Permittee seeks recordation of a CAIR $NO_x$ Ozone Season allowance transfer, they will submit the transfer to the Administrator. The allowance transfer must include the following elements, in a format specified by the Administrator:

a) The Account numbers for both the transferor and transferee accounts;
b) The serial number of each CAIR $NO_x$ Ozone Season allowance that is in the transferor account and is to be transferred; and
c) The name and signature of the CAIR authorized account representative of the transferor account and the date signed.

**[45CSR§40-60.1 (Boilers No. 10, 11, and 12)]**

5.1.30. Except as provided in (e) and (f) below, the owner or operator of an affected unit shall calculate hourly $NO_x$ mass emissions (in lbs) by multiplying the hourly $NO_x$ emission rate (in lbs/mmBtu) by the hourly heat input (in mmBtu/hr) and the hourly operating time (in hr). The owner or operator shall also calculate quarterly and cumulative year-to-date $NO_x$ mass emissions and cumulative $NO_x$ mass emissions for the ozone season (in tons) by summing the hourly $NO_x$ mass emissions according to the procedures in 40CFR75 Section 8 of Appendix F.

(a) *Unit utilizing common stack with other affected unit(s).* When an affected unit utilizes a common stack with one or more affected units, but no nonaffected units, the owner or operator shall either:
(1) Record the combined $NO_x$ mass emissions for the units exhausting to the common stack, install, certify, operate, and maintain a $NO_x$-diluent continuous emissions monitoring system in the common stack, and either:
(i) Install, certify, operate, and maintain a flow monitoring system at the common stack. The owner or operator also shall provide heat input values for each unit, either by monitoring each unit individually using a flow monitor and a diluent monitor or by apportioning heat input according to the procedures in 40CFR§75.16(e)(5); or
(ii) If any of the units using the common stack are eligible to use the procedures in 40CFR75 Appendix D,
(A) Use the procedures in 40CFR75 Appendix D to this part to determine heat input for that unit; and
(B) Install, certify, operate, and maintain a flow monitoring system in the duct to the common stack for each remaining unit; or
(2) Install, certify, operate, and maintain a $NO_x$-diluent continuous emissions monitoring system in the duct to the common stack from each unit and either:
(i) Install, certify, operate, and maintain a flow monitoring system in the duct to the common stack from each unit; or
(ii) For any unit using the common stack and eligible to use the procedures in appendix D to this part,
(A) Use the procedures in appendix D to determine heat input for that unit;
and
(B) Install, certify, operate, and maintain a flow monitoring system in the duct to the common stack for each remaining unit.

(e) *Units using a $NO_x$ concentration monitoring system and a flow monitoring system to determine $NO_x$ mass.* The owner or operator may use a $NO_x$ concentration monitoring system and a flow monitoring system to determine $NO_x$ mass emissions in paragraph (a) (in place of a $NO_x$-diluent continuous emission monitoring system and a flow monitoring system). When using this approach, calculate $NO_x$ mass according to 40CFR75 Sections 8.2 and 8.3 of Appendix F. In addition, if an applicable State or federal $NO_x$ mass reduction program requires determination of a unit's heat input, the owner or operator must either:

(1) Install, certify, operate, and maintain a $CO_2$ or $O_2$ diluent monitor in the same location as each flow monitoring system. In addition, the owner or operator must provide heat input values for each unit utilizing a common stack by either:

(i) Apportion heat input from the common stack to each unit according to 40CFR§75.16(e)(5), where all units utilizing the common stack are affected units, or

(ii) Measure heat input from each affected unit, using a flow monitor and a $CO_2$ or $O_2$ diluent monitor in the duct from each affected unit; or

(2) For units that are eligible to use appendix D to this part, use the procedures in appendix D to this part to determine heat input for the unit. However, the use of a fuel flowmeter in a common pipe header and the provisions of 40CFR75, Sections 2.1.2.1 and 2.1.2.2 of Appendix D are not applicable to any unit that is using the provisions of this subpart to monitor, record, and report $NO_x$ mass emissions under a State or federal $NO_x$ mass emission reduction program and that shares a common pipe or a common stack with a nonaffected unit.

(f) *Units using the low mass emitter excepted methodology under 40CFR§75.19.* For units that are using the low mass emitter excepted methodology under 40CFR§75.19, calculate ozone season $NO_x$ mass emissions by summing all of the hourly $NO_x$ mass emissions in the ozone season, as determined under 40§75.19(c)(4)(ii)(A), divided by 2000 lb/ton.

**[40CFR§§75.72(a), (e), and (f) (Boilers No. 10, 11, and 12)]**

## 5.2. Monitoring Requirements

5.2.1. Compliance with the particulate matter limits of 5.1.3, 5.1.6, and 5.1.14, and 5.1.24 shall be determined by

a. material balances around the baghouse/filter systems.

b. the baghouse/filter systems shall be inspected monthly.

**[45CSR§30.5.1.c (485L, 485N, 485R, 485O, 485P, 485Q, 480I)]**

5.2.2. Compliance with the opacity limit of 5.1.18 shall be shown by following the Rule 2 Monitoring Plan, submitted by the Permittee on February 28, 2001. This Plan is attached as Attachment A to this Permit.

**[45CSR§2-8.2.a. (480A)]**

5.2.3. At least monthly, visual emission checks of each emission point subject to an opacity limit shall be conducted. For units emitting directly into the open air from points other than a stack outlet, visible emissions are to include visible fugitive dust emissions that leave the plant site boundaries. These checks shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the unit has visible emissions using procedures outlined in 40 CFR 60, Appendix A, Method 22. If sources of visible emissions are identified during the survey, or at any other time, the permittee shall conduct an evaluation as outlined in 45CSR§7A-2.1.a,b within twenty-four (24) hours. However, a 45CSR§7A-2.1.a,b evaluation shall not be required more than once per month per emission unit. A 45CSR§7A-2.1.a,b evaluation shall not be required if the visible emission condition is corrected in a timely manner and the units are operated at normal operating conditions. A record of each visible emission check required above shall be maintained on site for a period of no less than five (5) years. Said record shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emissions requirement, the results of the check, what action(s), if any, was/were taken, and the name of the observer.

**[45CSR§30-5.1.c (485L, 485M, 485N, 485R, 485O, 485P, 485Q, 480I)]**

5.2.4. The owners and operators, and to the extent applicable, the CAIR designated representative of a CAIR $NO_X$ Ozone Season unit, must comply with the monitoring, recordkeeping and reporting requirements as provided in 45CSR40-70 through 75 and 40CFR75 Subpart H. For purposes of complying with such requirements, the

definitions in 45CSR40-2 and in 40CFR§72.2 will apply, and the terms "affected unit," "designated representative," and "continuous emission monitoring system" (or "CEMS") in 40CFR Part 75 will be deemed to refer to the terms "CAIR $NO_X$ Ozone Season unit," "CAIR designated representative," and "continuous emission monitoring system" (or "CEMS") respectively, as defined in section 2. The owner or operator of a unit that is not a CAIR $NO_X$ Ozone Season unit but that is monitored under 40CFR§75.72(b)(2)(ii) must comply with the same monitoring, recordkeeping and reporting requirements as a CAIR $NO_X$ Ozone Season unit.

70.1. Requirements for installation, certification and data accounting. -- The owner or operator of each CAIR $NO_X$ Ozone Season unit will:

70.1.a. Install all monitoring systems required under 45CSR40-70 through 75 for monitoring $NO_X$ mass emissions and individual unit heat input (including all systems required to monitor $NO_X$ emission rate, $NO_X$ concentration, stack gas moisture content, stack gas flow rate, $CO_2$ or $O_2$ concentration, and fuel flow rate, as applicable, in accordance with 40CFR§§75.71 and 75.72);

70.1.b. Successfully complete all certification tests required under 45CSR40-71 and meet all other requirements of 45CSR40-70 through 75 and 40CFR Part 75 applicable to the monitoring systems under 45CSR§40-70.1.a; and

70.1.c. Record, report and quality-assure the data from the monitoring systems under 45CSR§40-70.1.a.

71.4.b. Requirements for recertification. -- Whenever the owner or operator makes a replacement, modification, or change in any certified continuous emission monitoring system under 45CSR§40-70.1.a that may significantly affect the ability of the system to accurately measure or record $NO_X$ mass emissions or heat input rate or to meet the quality-assurance and quality-control requirements of 40CFR§75.21 or Appendix B to 40 CFR Part 75, the owner or operator will recertify the monitoring system in accordance with 40CFR§75.20(b). Furthermore, whenever the owner or operator makes a replacement, modification, or change to the flue gas handling system or the unit's operation that may significantly change the stack flow or concentration profile, the owner or operator will recertify each continuous emission monitoring system whose accuracy is potentially affected by the change, in accordance with 40CFR§75.20(b). Examples of changes to a continuous emission monitoring system that require recertification include replacement of the analyzer, complete replacement of an existing continuous emission monitoring system, or change in location or orientation of the sampling probe or site. Any fuel flowmeter systems, and any excepted $NO_X$ monitoring system under Appendix E to 40 CFR Part 75, under 45CSR§40-70.1.a are subject to the recertification requirements in 40CFR§75.20(g)(6).
**[45CSR§§40-70.1 and 71.4.b (Boilers No. 10, 11, and 12)]**

5.2.5. The owner or operator shall implement a Compliance Assurance Monitoring program in accordance with the following:

a. The permittee shall monitor and maintain 6-minute opacity averages measured by a continuous opacity monitoring system, operated and maintained pursuant to 40 C.F.R. Part 75, including the minimum data requirements, in order to determine 3-hour block average opacity values. The permittee may also use COMS that satisfy Section 51.214 and appendix P of Part 51, or Section 60.13 and appendix B of Part 60, to satisfy the general design criteria under 40 C.F.R. §§64.3(a) and (b).
**[45CSR§30-5.1.c.; 40 C.F.R. § 64.6(c)(1)(i) and (ii)]**

b. The COMS QA/QC procedures shall be equivalent to the applicable requirements of 40 C.F.R. Part 75.
**[40 C.F.R. §75.21; 40 C.F.R. § 64.6(c)(iii); 45CSR§30-5.1.c.]**

c. The 6-minute opacity averages from permit condition 5.2.5.a shall be used to calculate 3-hour block average opacity values. Data recorded during monitoring malfunctions, associated repairs and QA/QC activities shall not be used for calculating the 3-hour averages. All other available qualified data consisting of 6-minute opacity averages will be used to calculate a 3-hour average. Data availability shall be at least of 50% of the operating time in the 3-hour block to satisfy the data requirements to calculate the 3-hour average opacity. However, the number of invalid 3-hour blocks shall not exceed 15% of the total 3-hour blocks during unit operation for a quarterly reporting period**.** The soot blowing periods for Boilers 10, 11, and 12, which allow for an alternative visible emission standard of thirty (30%) opacity which shall not exceed a total of six (6) six minute time periods in a calendar day under 45CSR§2-3.3 shall also not be used to calculate 3-hour block average opacity values.

d. Startup, Shutdown, Malfunction (SSM) events for Boilers 10, 11, and 12 shall also not be used to calculate the 3-hour block average opacity values under Condition 5.2.5.c.

An excursion of the indicator range shall be defined as two consecutive 3-hour block average opacity values that exceed 10%.

**[45CSR§2-3.3, 45CSR§30-5.1.c.; 40 C.F.R. § 64.6(c)(2) and (4); 40 C.F.R. § 64.7(c)]**

5.2.6 The CAM-related testing and CAM plan implementation shall be conducted according to the following schedule:

a. The permittee shall submit a CAM testing protocol to the Department at least 30 days prior to the proposed testing date.

b. A test report, presenting testing results, shall be submitted to the Director within 60 days after completion of testing.

c. The permittee shall complete the CAM testing and implement the CAM monitoring within 180 days of the issuance of this permit.

**[45CSR§30-5.1.c.; 40 C.F.R. §§ 64.6(d) and 64.7(a)]**

5.2.7 **Proper Maintenance.** The permittee shall maintain monitoring at all times, including maintaining necessary spare parts for routine repairs of the monitoring equipment.
**[45CSR§30-5.1.c.; 40 C.F.R. § 64.7(b)]**

5.2.8 **Response to Excursions or Exceedances**
a. Upon detecting an excursion or exceedance, the permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to

return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

b. Determination of whether the permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

**[40 C.F.R. § 64.7(d); 45CSR§30-5.1.c.]**

5.2.9 **Documentation of Need for Improved Monitoring** – After approval of monitoring under 40 C.F.R. Part 64, if the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing (permit condition 5.3.3.) document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the Director and, if necessary, submit a proposed modification to the permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.
**[40 C.F.R. § 64.7(e); 45CSR§30-5.1.c.]**

5.2.10 **Quality Improvement Plan (QIP)**

(1) Based on the results of a determination made under permit condition 5.2.8.b. or 5.2.10.(2), the Administrator or the Director may require the permittee to develop and implement a QIP. If a QIP is required, then it shall be developed, implemented, and modified as required according to 40 C.F.R. §§ 64.8(b) through (e). Refer to permit condition 5.5.6.(b)(iii) for the reporting required when a QIP is implemented.

(2) If five (5) percent or greater of the three (3) hour average COMS opacity values, determined in accordance with 5.2.5.c of this permit, indicate excursions of the 10% opacity threshold during a calendar quarter, the permittee shall develop and implement a QIP. The Director may waive this QIP requirement upon a demonstration that the cause(s) of the excursions have been corrected, or may require stack tests at any time pursuant to permit condition 3.3.1.

**[40 C.F.R. §§ 64.8 and 64.7(d); 45CSR§30-5.1.c.]**

5.2.11 **Continued operation.** Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.
**[40 C.F.R. § 64.7(c); 45CSR§30-5.1.c.]**

## 5.3. Testing Requirements

5.3.1. The owner or operator shall conduct tests to determine the compliance of Boilers 10, 11, and 12 with the particulate matter mass emission limitations. Such tests shall be conducted in accordance with the appropriate method set forth in 45CSR2 Appendix - Compliance Test Procedures for 45CSR2 or other equivalent EPA approved method approved by the Secretary. Such tests shall be conducted in accordance with the schedule set forth in the following table. The next stack test shall be completed by April 7, 2012.

| Test | Test Results | Retesting Frequency |
|---|---|---|
| Annual | after three successive tests indicate mass emission rates ≤ 50% of weight emission standard | Once/3 years |
| Annual | after two successive tests indicate mass emission rates < 80 % of weight emission standard | Once/2 years |
| Annual | any tests indicates a mass emission rate ≥ 80% of weight emission standard | Annual |
| Once/2 years | after two successive tests indicate mass emission rates ≤ 50% of weight emission standard | Once/3 years |
| Once/2 years | any tests indicates a mass emission rate < 80 % of weight emission standard | Once/2 years |
| Once/2 years | any tests indicates a mass emission rate ≥ 80% of weight emission standard | Annual |
| Once/3 years | any tests indicates a mass emission rate ≤ 50% of weight emission standard | Once/3 years |
| Once/3 years | any test indicates mass emission rates between 50% and 80 % of weight emission standard | Once/2 years |
| Once/3 years | any test indicates a mass emission rate ≥ 80% of weight emission standard | Annual |

**[45CSR§2-8.1., 45CSR§2A-5.2. (480A)]**

5.3.2. The owner or operator shall conduct tests to determine the compliance of each fuel burning unit with the weight emission standards set forth in 45CSR§10-3.2.c at a frequency established in the following table. Weight emission tests shall be conducted in accordance with 40 CFR Part 60, Appendix A, Method 6 or other equivalent EPA testing method approved by the Secretary.

| Percent of Factor | Testing Frequency |
|---|---|
| ≤ 50% of Factor | No stack testing required |
| Between 50% and 90% of Factor | Once every 5 years |
| ≥ 90% of Factor | Once every year |

**[45CSR§10-8.1, 45CSR§10-A-5.1. (480A)]**

5.3.3. Data collected during future periodic 45CSR2 mass emissions tests (under permit condition 5.3.1.) will be used to supplement the existing data set in order to verify the continuing appropriateness of the 10% opacity indicator range value.
**[45CSR§30-5.1.c. and 40 C.F.R. § 64.6(b)]**

## 5.4. Recordkeeping Requirements

5.4.1. Records of monitored data established in the monitoring plan (see Attachment A) shall be maintained on site and shall be made available to the Secretary or his duly authorized representative upon request.
**[45CSR§2-8.3.a. (480A)]**

5.4.2. Records of the operating schedule and the quantity and quality of fuel consumed in each fuel burning unit, shall be maintained on-site in a manner to be established by the Secretary and made available to the Secretary or his duly authorized representative upon request.
**[45CSR§2-8.3.c. (480A)]**

5.4.3. The permittee shall maintain accurate records of the total time of lime truck unloading into lime storage silo, D-940. Said records shall also indicate the date and time of delivery (start and finish), the amount of lime delivered and if any visible emissions were detected.
**[45CSR13, Permit No. R13-2190 (Condition B.1.) (485R)]**

5.4.4. The permittee shall maintain accurate records of the hours of operation of the truck fill line during pneumatic truck loading, D-916.
**[45CSR13, Permit No. R13-2190 (Condition B.2.) (480I)]**

5.4.5. Monitoring plan recordkeeping provisions—
(c) General provisions. The owner or operator of an affected unit shall prepare and maintain a monitoring plan for each affected unit or group of units monitored at a common stack under 40CFR§75.72(b)(2)(ii):

(ii) Install, certify, operate, and maintain a flow monitoring system in the common stack

Except as provided in 40CFR§§75.73(d) or (f), a monitoring plan shall contain sufficient information on the continuous emission monitoring systems, excepted methodology under 40CFR§75.19, or excepted monitoring systems under 40CFR Appendix D or E and the use of data derived from these systems to demonstrate that all the unit's $NO_x$ emissions are monitored and reported.

(2) Whenever the owner or operator makes a replacement, modification, or change in the certified continuous emission monitoring system, excepted methodology under 40CFR§75.19, excepted monitoring system under 40CFR Appendix D or E, or alternative monitoring system under 40CFR75 Subpart E, including a change in the automated data acquisition and handling system or in the flue gas handling system, that affects information reported in the monitoring plan (e.g., a change to a serial number for a component of a monitoring system), then the owner or operator shall update the monitoring plan.

(3) Contents of the monitoring plan for units not subject to an Acid Rain emissions limitation. Each monitoring plan shall contain the information in 40CFR§75.53(e)(1) in electronic format and the information in 40CFR§75.53(e)(2) in hardcopy format. In addition, to the extent applicable, each monitoring plan shall contain the information in 40CFR§§75.53(f)(1)(i), (f)(2)(i), (f)(4), and (f)(5)(i) for units using the low mass emitter methodology in electronic format and the information in 40CFR§75.53(f)(1)(ii), (f)(2)(ii), and (f)(5)(ii) in hardcopy format. The monitoring plan also shall identify, in electronic format, the reporting schedule for the affected unit (ozone season or quarterly), the beginning and end dates for the reporting schedule, and whether year-round reporting for the unit is required by a state or local agency.
**[45CSR§40-74.2, 40CFR§75.73(c) (Boilers No. 10, 11, and 12)]**

5.4.6. Records of the block 3-hour COMS opacity averages and corrective actions taken during excursions of the CAM plan indicator range shall be maintained on site and shall be made available to the Director or his duly authorized representative upon request. COMS performance data will be maintained in accordance with 40 C.F.R. Part 75 recordkeeping requirements.
**[45CSR§30-5.1.c.; 40 C.F.R. §64.9(b)]**

5.4.7. **General recordkeeping requirements for 40 C.F.R. Part 64 (CAM)**
The permittee shall comply with the recordkeeping requirements specified in permit conditions 3.4.1 and 3.4.2. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 (condition 5.2.10.) and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40 C.F.R. Part 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).
**[40 C.F.R. § 64.9(b); 45CSR§30-5.1.c.]**

5.4.8. The permittee shall maintain a record of the total throughput of flyash on the basis of a rolling twelve month total, per the example form Attachment C. Records shall be certified by a "Responsible Official" and maintained on-site. Such records shall be made available to the Director or his duly authorized representative upon request.
**[45CSR13, Permit No. R13-2001B (Condition B.1.)]**

## 5.5. Reporting Requirements

5.5.1. A periodic exception report shall be submitted to the Secretary, in a manner and at a frequency to be established by the Secretary. Compliance with this periodic exception reporting requirement shall be demonstrated as outlined the DAQ "45CSR2 Monitoring Plan" attached in Attachment A of this permit.
**[45CSR§2-8.3.b. (480A)]**

5.5.2. Excess opacity periods resulting from any malfunction of Boilers 10, 11, or 12 or their air pollution control equipment, meeting the following conditions, may be reported on a quarterly basis unless otherwise required by the Secretary:

a. The excess opacity period does not exceed thirty (30) minutes within any twenty-four (24) hour period; and
b. Excess opacity does not exceed forty percent (40%).

**[45CSR§2-9.3.a. (480A)]**

5.5.3. Except as provided in permit condition 5.5.2 above, the owner or operator shall report to the Secretary by telephone, telefax, or e-mail any malfunction of Boilers 10, 11, or 12 or their associated air pollution control equipment, which results in any excess particulate matter or excess opacity, by the end of the next business day after becoming aware of such condition. The owner or operator shall file a certified written report concerning the malfunction with the Secretary within thirty (30) days providing the following information:

a. A detailed explanation of the factors involved or causes of the malfunction;

b. The date, and time of duration (with starting and ending times) of the period of excess emissions;

c. An estimate of the mass of excess emissions discharged during the malfunction period;

d. The maximum opacity measured or observed during the malfunction;

e. Immediate remedial actions taken at the time of the malfunction to correct or mitigate the effects of the malfunction; and

f. A detailed explanation of the corrective measures or program that will be implemented to prevent a recurrence of the malfunction and a schedule for such implementation.

**[45CSR§2-9.3.b. (480A)]**

5.5.4. (e) Monitoring plan reporting.--(1) Electronic submission. The designated representative for an affected unit shall submit a complete, electronic, up-to-date monitoring plan file (except for hardcopy portions identified in paragraph (e)(2) of this section) for each affected unit or group of units monitored at a common stack and each non-affected unit under 40CFR§75.72(b)(2)(ii) as follows:

(i) To the permitting authority, at the time of recertification application submission; and

(ii) To the Administrator, at the time of submission of a recertification application, and in each electronic quarterly report.

(2) Hardcopy submission. The designated representative shall submit hardcopy information only if that portion of the monitoring plan is revised. The designated representative shall submit the required hardcopy information as follows: within 30 days of any other event with which a hardcopy monitoring plan change is associated, pursuant to 40CFR§75.53(b).

**[45CSR§40-74.2, 40CFR§75.73(e) (Boilers No. 10, 11, and 12)]**

5.5.5. Quarterly reports. -- The CAIR designated representative must submit quarterly reports, as follows:

a. If the CAIR $NO_X$ Ozone Season unit is subject to an Acid Rain emissions limitation or a CAIR $NO_X$ emissions limitation or if the owner or operator of such unit chooses to report on an annual basis under 45CSR§§40-70 through 75, the CAIR designated representative will meet the requirements of Subpart H of 40CFR Part 75 (concerning monitoring of $NO_X$ mass emissions) for such unit for the entire year and will report the $NO_X$ mass emissions data and heat input data for such unit, in an electronic quarterly report in a format prescribed by the Administrator

b. If the CAIR $NO_X$ Ozone Season unit is not subject to an Acid Rain emissions limitation or a CAIR $NO_X$ emissions limitation, then the CAIR designated representative will either:

1. Meet the requirements of Subpart H of 40CFR Part 75 (concerning monitoring of $NO_X$ mass emissions) for such unit for the entire year and report the $NO_X$ mass emissions data and heat input data for such unit in accordance with 40CFR§74.4.a; or

2. Meet the requirements of Subpart H of 40CFR Part 75 for the ozone season (including the requirements in 40CFR§75.74(c)) and report $NO_X$ mass emissions data and heat input data (including the data described in 40CFR§75.74(c)(6)) for such unit only for the ozone season of each year and report, in an electronic quarterly report in a format prescribed by the Administrator.

**[45CSR§§40-74.4.a and b (Boilers No. 10, 11, and 12)]**

5.5.6. General reporting requirements for 40 C.F.R. Part 64 (CAM)

(a) On and after the date specified in 40 C.F.R. §64.7(a) by which the permittee must use monitoring that meets the requirements of 40 C.F.R. 64, the permittee shall submit monitoring reports to the DAQ in accordance with permit condition 3.5.6.

(b) A report for monitoring under 40 C.F.R. 64 shall include, at a minimum, the information required under permit condition 3.5.8. and the following information, as applicable:

(i) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

(ii) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable) provided in accordance with 40 C.F.R. Part 75; and

(iii) A description of the actions taken to implement a QIP during the reporting period as specified in 40 C.F.R. §64.8. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

**[40 C.F.R. § 64.9(a); 45CSR§30-5.1.c.]**

## 5.6. Compliance Plan

N/A

## 6.0 Source-Specific Requirements [Wastewater Treatment Unit/Maintenance/Laboratory]

### 6.1. Limitations and Standards

6.1.1. The Permittee shall operate and maintain the storage silo in such a manner so that hydrated lime emissions from emission point 015A shall not exceed a maximum hourly emission rate of 0.12 lbs/hr and/or a maximum annual emission rate of 6.48 lbs/yr.
**[Compliance with 45CSR13, Permit No. R13-1033 (Condition A.1., B.1.) will show compliance with 45CSR§7-4.1. (015A)]**

6.1.2. HCl emissions to the atmosphere from the scrubber on the HCl tank (010F) shall not exceed 0.004 lbs/hr or 1.6 lbs/yr. HCL emissions to the atmosphere from the scrubber on the HCL tank shall not exceed 210 milligrams per dry cubic meter.
**[45CSR§7-4.2., 45CSR13, Permit No. R13-1248 (Condition A.1.) (010F)]**

6.1.3. The HCl tank and scrubber shall be operated in such a manner so as to comply with all applicable state laws and regulations.
**[45CSR13, Permit No. R13-1248 (Condition B.1.) (010F)]**

6.1.4. No person shall cause, suffer, allow or permit any manufacturing process or storage structure generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable.
**[45CSR§7-5.1., 45CSR13, Permit No. R13-1033 (Condition B.1.) (010D, 015A, 010C)]**

6.1.5. The owner or operator of a plant shall maintain particulate matter control of the plant premises, and plant owned, leased or controlled access roads, by paving, application of asphalt, chemical dust suppressants or other suitable dust control measures. Good operating practices shall be implemented and when necessary particulate matter suppressants shall be applied in relation to stockpiling and general material handling to minimize particulate matter generation and atmospheric entrainment.
**[45CSR§7-5.2., 45CSR13, Permit No. R13-1033 (Condition B.1.)]**

6.1.6. No person shall cause, suffer, allow, or permit visible emissions from any storage structure(s) associated with any manufacturing process(es) that pursuant to 45CSR§7-5.1 is required to have a full enclosure and be equipped with a particulate matter control device.
**[45CSR§7-3.7., 45CSR13, Permit No. R13-1033 (Condition B.1.) (010D, 015A, 010C, 010F)]**

6.1.7. Emergency Generator EG-1 and #2 Fuel Oil Tank 6392N54277 are subject to the requirements of Attachment D 45CSR13 General Permit Registration G60-C023 and Attachment E General Permit G60-C.
**[45CSR34, 40CFR60 Subpart IIII, 40CFR63 Subpart ZZZZ, 45CSR13, Permit No. G60-C023) (EG-1)]**

### 6.2. Monitoring Requirements

6.2.1. At least monthly, visual emission checks of each emission point subject to an opacity limit shall be conducted. For units emitting directly into the open air from points other than a stack outlet, visible emissions are to include visible fugitive dust emissions that leave the plant site boundaries. These checks shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the unit has visible emissions

using procedures outlined in 40 CFR 60, Appendix A, Method 22. If sources of visible emissions are identified during the survey, or at any other time, the permittee shall conduct an evaluation as outlined in 45CSR§7A-2.1.a,b within twenty-four (24) hours. However, a 45CSR§7A-2.1.a,b evaluation shall not be required more than once per month per emission unit. A 45CSR§7A-2.1.a,b evaluation shall not be required if the visible emission condition is corrected in a timely manner and the units are operated at normal operating conditions. A record of each visible emission check required above shall be maintained on site for a period of no less than five (5) years. Said record shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emissions requirement, the results of the check, what action(s), if any, was/were taken, and the name of the observer.
**[45CSR§7A-2.1a,b 45CSR13, Permit No. R13-1033 (Condition B.1.) (015A)]**

6.2.2. Compliance with 6.1.2 for the removal of HCl by the scrubber (010F) shall be determined by proper operation and maintenance of the scrubber. The permittee shall follow the permittee's Preventative Maintenance Plan, as submitted by the Permittee on March 31, 2005.
**[45CSR§30.5.1.c (010F)]**

6.2.3. Compliance with the particulate matter limits of 6.1.1 shall be determined by
a. Material balances around the baghouse/filter system.
b. The baghouse/filter system shall be inspected monthly.
**[45CSR§30.5.1.c (015A)]**

## 6.3. Testing Requirements
N/A

## 6.4. Recordkeeping Requirements
N/A

## 6.5. Reporting Requirements
N/A

## 6.6. Compliance Plan
N/A

# ATTACHMENT A

Rule 2 and 10 Monitoring Plan

Aventis CropScience

Aventis

WV DIVISION OF ENVIR PROTECT
OFFICE OF AIR QUALITY
2001 FEB 27 P 4:02
RECEIVED

February 28, 2001

**HAND DELIVERED**

Mr. Edward L. Kropp, Chief
WV Division of Environmental Protection
Office of Air Quality
7012 MacCorkle Avenue, SE
Charleston, West Virginia 25304-2943

Dear Mr. Kropp:

In accordance with the requirements of West Virginia Regulations 2 and 10, enclosed are Aventis CropScience's Visible Emission and Sulfur Oxide Monitoring Plans. Should you have any questions concerning these plans, please contact Ms. Connie Stewart of my staff at (304) 767-6595.

Sincerely,

G. N. Townes
Plant Manager
Institute Plant

Reg2&10 plans

000292

Aventis CropScience • Institute Site • P.O. Box 2831 • Charleston, WV 25330 • www.aventis.com

# Aventis CropScience, Inc.
## Institute Plant
### West Virginia Regulation 2
### Visible Emission Monitoring Plan

**General:**

Aventis owns and operates two Powerhouses, Nos. 1 and 2. Powerhouse No. 1 contains three boilers No. 3, 4, and 5. Boilers 3 and 4 burn alternate fuels and are regulated under 40CFR Part 266 (RCRA Boiler and Industrial Furances). No. 5 Boiler burns non-hazardous gaseous waste streams for energy recovery. Each boiler vents through an individual stack.

Powerhouse No. 2 contains three boilers No. 10, 11, and 12. All of these boilers are coal-fired and are vented through a single, common stack.

**Powerhouse No. 1:**

The No. 1 Powerhouse boiler stacks are equipped with continuous opacity meters. These meters are not certifiable. However, these meters are maintained, routinely calibrated, and are indicative of stack opacity and boiler operation.

Since the boilers' opacity monitors are not certifiable, Aventis will perform monthly visible emission readings on each boiler stack as required by Regulation 2, Section 3. These readings will be made in accordance with the criteria established in Method 9 and will be representative of normal boiler operations.

With regards to monitoring parameters and frequency, Aventis will continue to use the existing non-certifiable continuous opacity monitors as an appropriate parameter to demonstrate compliance with the 10 percent opacity limit. Use of these monitors will provide immediate opacity feedback to operating personnel, which will more quickly highlight operational difficulties and allow a quicker response to upset conditions or equipment malfunctions.

**Powerhouse No. 1 Response Plan:**

Using the existing opacity monitors will allow for a more quick identification of operational or equipment malfunctions. If an opacity excursion occurs, action will be taken to resolve the excursion. Should the excursion last more than one hour, visible emission readings using Method 9 (assuming conditions meet the Method 9 criteria) will be made at a minimum of six (6) minutes for each hour during the excursion and will continue each hour until four (4) successive six-minute observations demonstrate compliance.

**Powerhouse No. 2:**

The No. 2 Powerhouse employs an in-stack, certifiable continuous opacity monitor system. This system meets the applicable requires of Regulation 2. Therefore, per Section 8.2, this system is deemed to meet the requirements of an approved Visible Emissions Monitoring Plan.

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# Aventis CropScience, Inc.
## Institute Plant
### West Virginia Regulation 10
### Sulfur Dioxide Monitoring Plan

**General:**

Aventis owns and operates two Powerhouses, Nos. 1 and 2. Powerhouse No. 1 contains three boilers No. 3, 4, and 5. Boilers 3 and 4 burn alternate fuels and are regulated under 40CFR Part 266. No. 5 Boiler burns non-hazardous gaseous waste streams for energy recovery. Each boiler vents through an individual stack.

Powerhouse No. 2 contains three boilers No. 10, 11, and 12. All of these boilers are coal-fired and are vented through a single, common stack.

It is Aventis' position to maintain compliance with Regulation 10. Appropriate parameters have been selected to demonstrate compliance. In addition, pro-active measures are in place to avoid situations that could cause an excursion of these parameters. These measures are further discussed in the Response Plan sections.

**Powerhouse No. 1:**

Burning the Plant's liquid alternate fuels, gaseous waste streams, and too a much lesser extent natural gas used as a burner ignition source, generates sulfur dioxide emissions. Liquid alternate fuels generate the majority of the sulfur dioxide emissions. Natural gas consumed has a sulfur content less than 0.1 percent. Coal is no longer burned in these boilers.

Powerhouse No. 1 already employs a sulfur dioxide monitoring plan. This plan performs routine sampling and analysis, which determines the equivalent fuel sulfur content. The Office of Air Quality, under Regulation 13 Permit No. 641, has previously approved this plan. A copy is attached. Aventis will continue using this plan as an approved sulfur dioxide monitoring plan. Also attached is a copy of the Quality Control and Quality Assurance Program for the sulfur analysis.

**Powerhouse No. 1 Response Plan:**

Liquid alternate fuels generate the largest percentage of the No. 1 Powerhouse's sulfur dioxide emissions. They are accumulated in unit storage tanks, sampled and analyzed, and transferred to the Powerhouse's feed tank. Through this management technique the fuel streams sulfur concentration can be monitored and controlled. Therefore, the rate of sulfur dioxide emissions can also be controlled to ensure compliance with allowable emission rates.

000254

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Aventis CropScience, Inc.
Institute Plant
West Virginia Regulation 10
Sulfur Dioxide Monitoring Plan

With the existing liquid fuel control and management scheme, fuel feed rates can be regulated, transferred, and fed at rates to prevent hourly sulfur dioxide emission excursions. If the sulfur concentration in the boiler feed tank rises to 2.8 percent, action will be taken using this scheme to ensure fuel feed rates will not cause a sulfur dioxide excursion.

**Powerhouse No. 2:**

The No. 2 Powerhouse burns coal to generate steam. Natural gas is used as a burner ignition source and has a sulfur content less than 0.1 percent. Therefore, most of the sulfur dioxide generated is the result of burning coal.

Burning coal represents approximately 90 to 95 percent of the sulfur dioxide generated at the Institute Plant. Monthly fuel use data and emission calculations using EPA AP-42 emission factors indicate that total sulfur dioxide emissions are typically 50 percent or less of Regulation 10's maximum hourly allowable limit. Aventis' Regulation 13 Permit (No. 277) limits the coal's maximum sulfur content to 1.2 percent.

To demonstrate compliance with sulfur dioxide emission limits, Aventis will record the total daily quantity of coal burned in the No. 2 Powerhouse. Since sulfur dioxide emissions are less than 90 percent of Regulation 10's maximum hourly allowable limit, as-shipped sulfur analysis will be recorded. Using EPA AP-42 emissions, as-shipped sulfur content and daily coal usage, maximum hourly sulfur dioxide emissions will be calculated. Attached is a copy of the Quality Control and Quality Assurance Program used by the Coal Supplier.

**Powerhouse No. 2 Response Plan:**

Sulfur dioxide emissions are directly related to the coal's sulfur content. Regulation 13 Permit No. 277 specifies that the maximum allowable sulfur content will not exceed 1.2 percent. Therefore, Aventis will not accept any coal received with a greater sulfur content. Purchase agreements with the coal supplier also specifies the maximum allowable sulfur content.

Coal is fed to the boilers using mechanical conveying and feeding systems. These systems physically limit the boiler's maximum feed rates. Any malfunction or failure of these systems would reduce the quantity of coal fed. As a result, sulfur dioxide emissions would decrease below the allowable limits until the system was repair and system brought back to capacity.

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2

| Elk Run Coal Company<br>QUALITY ASSURANCE<br>SYLVESTER, WEST VIRGINIA 25193 | DATE<br>2/10/98 | NUMBER<br>SOP L8 3.0 |
|---|---|---|
| | APPROVED | REVISION |
| QUALITY ASSURANCE PROCEDURES | | PAGES 2 |

## SUBJECT: SULFUR ANALYZER CHECK AND CALIBRATION

Purpose:

To describe the procedure for standard checks and calibration of the sulfur analyzer.

Application:

Laboratory instruments must be checked against a known standard to assure the accuracy of the measurement being made.

Related materials:

LECO Sulfur Analyzer SC-132 Instruction Manual (LEM-025A,B)
LECO Sulfur Analyzer SC-432 Instruction Manual (LEM-025C)
Laboratory Instrument Calibration Program (QA Calibrate)
Sulfur standard reference material (Alpha or NIST)

Procedure:

CHECK

1. Weigh standard sample to 0.3 grams (+/- .005g)
2. Run sample as a normal sulfur determination
3. If duplicate sample determinations are out of tolerance (>+/- 0.03%) go to steps 1 through 9 of the recalibration procedure.

RECALIBRATION

1. Weigh five sulfur standard samples to 0.3 grams(+/- .005g) and run each sample.
2. (SC-132), Press SYSTEM UPDATE on the printer. The computer will ask to display constants. Press "NO".
3. The computer will ask to calibrate the system. Press "YES".
4. The computer will then ask for the standard of the sample.
5. The computer will ask to include the last 10 results. Enter "YES" for the first five samples which would be the five samples run in step 1.
6. The analyzer will automatically recalibrate from the results of the five samples run in step 1.
7. Weigh another standard to 0.3 grams(+/- .005g) and run sample in the normal way.
8. If the sample is out of tolerance (>+/- 0.03%) repeat steps 1 through 8.
9. (SC-432) After the five samples are run, select the corresponding data from the display under "calibration". Press "Process Results" on the calibration menu and recalibration will be performed based on the selected data. Printout will show the results and past calibration data.

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| SUBJECT: SULFUR ANALYZER CHECK AND CALIBRATION | | |

Records:

Enter the results of the standard check in the Laboratory Calibration Program. Enter both the measurement and the master value as prompted by the program.

References:

ASTM D4239-94 Sulfur in the Analysis Sample of Coal ...Using High Temperature Tube Furnace Combustion Methods

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| QUALITY ASSURANCE PROCEDURES | | PAGES 2 |

SUBJECT: SULFUR ANALYZER PREVENTIVE MAINTENANCE

Purpose:

To describe the maintenance procedure for the sulfur analyzer.

Application:

To assure continuous, accurate, and dependable performance from the sulfur analyzer certain periodic tasks must be performed.

Related materials:

LECO Sulfur Analyzer SC-132 Instruction Manual (LEM-025A,B)
LECO Sulfur Analyzer SC-432 Instruction Manual (LEM-025C)

Procedure:

SC-132 Analyzer

A. Changing the Reagent tube filters (figure 6, page 14):
   1. After 75 samples have been run, the printer will print "CHANGE FILTERS."
   2. Remove the two reagent tubes from the front of the machine.
   3. To change the left filter, remove the screen from the top of the tube, remove the glass wool, anhydrous solution, and glass wool from the bottom of the tube. Obtain a clean tube and replace glass wool in bottom of tube. Fill with anhydrous solution leaving room for the glass wool in the top of the tube. Replace the glass wool in the top of tube and replace screen.
   4. To change the right filter, follow step 3 except no wool is place above the anhydrous solution in the tube.
   5. Replace both tubes in the sulfur analyzer.

B. Oxygen flow check (Page S23):
   1. The oxygen flow meter should read 3.5 liters/minute.
   2. If it does not, adjust the flow controller on the left side of the machine until it shows 3.5 liters/minute.

C. Delivery tube check (Figure 5, page 13 and page 30)
   1. Remove the top two screws over the reagent tubes and remove the top plate.
   2. Remove the right reagent tube and front plate.
   3. Using a 5/8" wrench, remove the nut on the right end of the rubber delivery tube.
   4. Remove the tube and blow clean with an air hose.

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SUBJECT: SULFUR ANALYZER PREVENTIVE MAINTENANCE

5. Replace the rubber tube and tighten the nut on the right end.
6. Replace the front cover, right reagent tube, top plate, and two screws.

D. Changing the printer paper (Figure 10, page 30):
1. Remove the tear-off blade.
2. Remove the old printer paper spool.
3. Remove the pin from the old spool and insert into the new printer paper spool.
4. Install the new spool into the printer paper socket.
5. Thread the paper over the guide plate, under the platen, and between the deflector and tear-off plate.
6. Rotate the tear-off blade downward and tear off excess paper.

E. Changing the printer ribbon (Figure 11, page 30):
1. Rotate the tear-off blade away from the machine.
2. Rotate the ribbon spool retaining arms.
3. Lift out the ribbon.
4. Unwind the ribbon from one spool and attach new ribbon to that spool.
5. Replace the new spools in the machine.
6. Rotate the ribbon spool retaining arms to the original position.
7. Rotate the spools to take up any slack in the ribbon.
8. Push the tear-off blade downward and tear off any excess paper.

SC-432 Analyzer

A. Display unit will prompt operators with Preventive Maintenance needs as related to sensor information and preset maintenance counter intervals. Refer to the operations and maintenance manual for specific details of prompted tasks.

B. Daily Routine Activity
1. Remove and blow out air inlet filters on furnace and analyzer units
2. Visually inspect anhydrone cylinders for condition and replace if wetted over 50% of tube height.

References:
None

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SUBJECT: Truck Top and Rail Alternate Sample Collection

Purpose:

To describe the procedure for collection of samples from trucks or rail cars using manual methods.

Application:

Coal delivered to, or shipped from Elk Run Coal is sampled for use in various analytical procedures for reporting and evaluation. Coal may be sampled by manual methods due to mechanical system failure or when manual methods are the primary method of sample collection.

Related Materials:

Sample Identification Tags

Procedures:

**Rail Shipment (Secondary Method)**

Upon the need to sample by manual methods, the person responsible for sample collection shall collect samples from the top of truck, or railcar loads where suitable safety provisions have been made. Samples may also be collected from belt transfer points at the clean coal reclaim belt area.

If the manual sample operation is being used in place of a primary method, the sample person shall inform the foreman and/or analyst in charge of the failure of the primary sample method. The primary method of collection shall be restored as soon as possible.

The samples shall be collected by shovel per ASTM D4915, Standard Practice for Cartop Sampling or per ASTM D2234, Methods for Collection of a Gross Sample of Coal.

Collected samples shall be bagged and identified with the date, customer, permit and number of cars.

These primary increments shall be combined as needed, and prepared for the required analysis using the applicable ASTM Standard for the test method to be employed.

The subsample equipment at the lower scale area may be used for necessary sample preparation in regard to reduction and division of the primary sample

**Truck Shipment Samples (Primary Method) Truck Delivery (Secondary Method)**

Security Officers shall notify the laboratory or plant control operator upon arrival of trucks.

The samples shall be collected by shovel per ASTM D4915, Standard Practice for Cartop Sampling or per ASTM D2234, Methods for Collection of a Gross Sample of Coal.

Collected samples shall be bagged and clearly identified with the date, source or customer and type of coal.

These primary increments shall be properly stored, combined as needed, and prepared for the required analysis using the applicable ASTM Standard for the test method to be employed.

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| QUALITY ASSURANCE PROCEDURES | | PAGES 2 |

SUBJECT: Truck Top and Rail Alternate Sample Collection

References:

ASTM Volume 05.05 Coal and Coke
ASTM D4915 Standard Practice for Cartop Sampling of Coal
SOP H3.3.0 Coal Delivery Sampling

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RHÔNE-POULENC INC.
INSTITUTE PLANT
QUALITY CONTROL &
SUPPORT GROUP LABORATORY
QC LABORATORY SECTION

| | |
|---|---|
| No.: | III-SYN-1 |
| Date: | 7/8/97 |
| Supersedes: | 10/30/96 |
| Page: | 1 of 2 |
| Reviewers(s): | A. L. Elmore<br>M. L. Hicks |
| Approved: | A. L. Elmore |

## Startup of the Dohrmann Analyzer

R **PURPOSE**
To provide the procedure for proper startup of the Dohrmann analyzer.

R **SCOPE**
All Dohrmann analyzers used in the QC Lab Section of the Quality Control and Support Group Laboratory, to analyze samples in support of any Rhône-Poulenc process at the Institute Plant.

**PROCEDURE**

R 1. Check the Oxygen and Argon cylinders located on Station 104 dock. Both the feed and backup cylinders of both the Oxygen and Argon should register a cylinder pressure of >200 psi. The cylinder pressure can be read on the left pressure gauge. The pressure regulators for the Oxygen should be set as follows: ~~125~~ 450 psi for the feed cylinder and 100 psi for the backup cylinder. The pressure regulators for the Argon should be set as follows: 90 psi for the feed cylinder and 75 psi for the backup cylinder. The pressure settings for the regulators can be read by observing the right pressure gauge on each cylinder. The supply valves for both the feed and backup cylinders should be open at all times, except when changing cylinders. Whenever a cylinder needs changed, close the supply valve feeding from the empty cylinder and place a request to change the cylinder with the service mechanics.

R 2. Once the cylinders outside have been checked, check the Argon and Oxygen inside pressure gauges located above the Dohrmann instrument to ensure that the reading on each pressure gauge is 40 psi. If the readings are not correct, notify the responsible Lab Specialist or Chemist.

R 3. Set the Furnace Inlet Temperature to 800° C and the Outlet Temperature to 900° C, using the set temp button and the inlet/outlet display switch on the Furnace Module.

4. Drain the sulfur electrolyte from the sulfur cell and refill the cell with fresh electrolyte. If there are any air bubbles in the sidearms of the cell, remove them by tilting the cell and allowing the electrolyte to drain through the sidearm.

5. Turn on the gases using the Dohrmann Control Module. Select #1 *system on/off*, and then on the next screen select #1 *gases on*. On the Furnace Module, the red lights for valves 1, 2 and 4 should be on.

6. Once the gases are on, connect the sulfur cell to the outlet of the pyrolysis tube. Repeat the inspection for bubbles.

7. From the Main Screen, Select Set-up and then make sure that Option # 2 on the Set-Up Screen is displaying the element being determined. (Ex: S=Sulfur, Cl=Chlorine etc...). Then select # 4 *Sampling*, and adjust parameters in the Sampling Screen accordingly. (Enter Weights, Sample ID, etc...).

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| Reviewers(s): | A. L. Elmore<br>M. L. Hicks |
| Approved: | A. L. Elmore |

## Startup of the Dohrmann Analyzer

8. From the Set-up Screen, Select # 1 *Inlet Modes*. From the Inlet Modes Screen, Select either Auto- Sampler Syringe, or Manual Syringe.

9. Using the Control Module, set the cell heater power level on high. To do this select #2 *setup* on the main screen, #3 *detector* on the Detector screen, and # 4 *cell heater* on the Set-Up screen.

10. Using the Control Module, verify that the difference potential is >0. Do this by selecting #8 *difference potential* on the Detector screen. If the difference potential is not >0, then drain and refill the sulfur cell with sulfur electrolyte. If this does not bring the difference potential up past 0 then search for other cause such as dirty cell or disconnected wire.

11. After the difference potential is >0, then turn on the detector. Do this by selecting #3 *detector* on the Detector screen (Same screen as Difference Potential)

12. Go back to the Main Menu (+/-), select #4 *graphics* on the main screen and then #4 *auto display* on the next screen. This allows you to monitor the baseline.

13. Allow the instrument to stabilize until the mv reading is between -2 and +20, and the difference between two consecutive readings is not > 0.05. If there are any problems getting the instrument to stabilize, consult the troubleshooting guide in the back of the Dohrmann Manual (pages 5-9 to 5-14).

14. Once the instrument is stabilized, it is ready for operation.

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INSTITUTE PLANT
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ATOMIC ABSORPTION MANUAL

METHOD: DOHR2
DATE: 10-30-96
SUPERSEDES: NEW
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DOHRMANN SHUT-DOWN PROCEDURE

1. Select #1 *system on/ off*, and then select #7 *All off*.
2. Disconnect the Sulfur cell from the pyrolysis tube. **NOTE: Always leave Sulfur Electrolyte Solution in the cell. Never leave the Sulfur Cell Dry!!**
3. Turn off the autodisplay on the *Graphics Screen* and turn on the blank alpha #6 .
4. Turn down the Furnace temperatures inlet and outlet to 300 ° C.

000304

RHONE-POULENC AG COMPANY
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METHOD: DOHR3
DATE: 10-30-96
SUPERSEDES: NEW
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## CALIBRATION OF THE DOHRMANN USING THE AUTOSAMPLER

**PROCEDURE:**

1. Set up the Dohrmann for use with the Autosampler. Follow the Dohrmann Start-up Procedure for initial instrument set-up. Make sure that the instrument is set for use with the Auto-sampler, that the Calibration Factor is set at 1, Standard amount is 127 **ng/mg**, and the sample weight is 3.93. Always use the units **ng/mg**.

2. After the parameters have been entered in the control module, and the instrument is started up according to the Start-Up Procedure, line up the auto-sampler injector with the inlet port to the instrument furnace. To do this, line up the needle with the gray septa, pushing the sampler in to where the needle port (the brass circle) touches the gray septa. Manually push the needle injector in by pushing the black block, to ensure that the needle is properly lined up with the injection port. If not, adjust the positioning of the autosampler until this is correct.

3. Once the sampler is lined up, begin loading the sampler. In hole number one (do not have to start at #1 unless you have the setting in the control module set at "start with #1") put in a flush vial which is a vial of Isopropanol and a metal peg. A vial and a peg lets the instrument know it is a Flush. Do the same in hole #2. In hole #3, place a vial filled with the Sulfur Standard Solution. In hole #4, place another vial of Standard Solution, except place a red collar around this vial. A vial by itself is a sample, and a vial with a collar is a calibration, which the instrument will use to calculate a calibration factor.

4. Next put another flush in hole #5 (a vial of Isopropanol and a peg) and then just a peg by itself in hole #6 which tells the instrument to stop the autosampler. Push RUN to start the sequence.

5. Once this sequence of samples has ran, the instrument should have a newly calculated Calibration Factor and is ready to analyze samples by autosampler or manual injection.

**Note**: All standards and liquid samples are prepared in Isopropanol. The density of Isopropanol is 0.7854 g/ml. Samples are analyzed on a weight basis, therefore standard amounts and weights must be figured using the density of Isopropanol. The calibration solution is 100ng/µl, but is entered into the Dohrmann as 127 after the density of the Isopropanol is considered. (100/.7854). The standard weight of 3.93 is calculated from the formula:

**Amount of Standard (µl) x 0.7854 (density of Isopropanol)= Sample weight in mgs.**

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QUALITY CONTROL LABORATORY
ATOMIC ABSORPTION MANUAL

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DATE: 10-30-96
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## CALIBRATION OF THE DOHRMANN USING MANUAL INJECTION

If the autosampler is not working or you are injecting Manual Syringe Samples and do not want to calibrate with the Autosampler, then the Manual Injection Calibration is as follows:

**PROCEDURE:**

1. Set up the Dohrmann for use with the Manual Syringe. Follow the Dohrmann Start-up Procedure for initial instrument set-up. Make sure that the instrument is set for Manual Syringe injection, that the Calibration Factor is set a 1, the Standard amount is 127 ng/mg, the sample weight is 3.93, and Sample I.D. is on.

2. After the parameters have been entered in the control module, and the instrument is started up according to the Start-Up Procedure, then locate the 10 µl Hamilton Syringe with a three inch needle.

3. Flush the syringe out with 127 PPM (100ng/µl) Sulfur Standard Solution. Draw up 5 µl of sample to inject into the instrument.

4. Push the RUN button. The instrument will ask you for the sample I.D. Enter 127 for calibration solution I.D., and then press YES when it asks you if you are ready. When you press YES, wait for the instrument to sound. After the sound occurs, start the manual injection into the Pyrolysis Tube (through the Gray septa). (Make sure that the needle is in all the way in when injecting). Inject the standard at a rate of approximately 0.5µl/second. Then wait for the result. Repeat this three times. If the results are repeatable then press the CALIBRATE KEY which will give you your Calibration Factor.

5. Once you have obtained a Calibration Factor, you are ready to analyze samples.

**Note**: All standards and liquid samples are prepared in Isopropanol. The density of Isopropanol is 0.7854 g/ml. Samples are analyzed on a weight basis, therefore standard amounts and weights must be figured using the density of Isopropanol. The calibration solution is 100ng/µl, but is entered into the Dohrmann as 127 after the density of the Isopropanol is considered. (100/.7854). The standard weight of 3.93 is calculated from the formula:

**Amount of Standard (µl) x 0.7854 (density of Isopropanol)= Sample weight in mgs.**

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ATOMIC ABSORPTION MANUAL

METHOD: DOHR5
DATE: 10-30-96
SUPERSEDES: NEW
PAGE: 1 OF 1

SAMPLE POINTS 25-6 AND 38-1

**PURPOSE:**

To determine the Sulfur content in the 25-6 Alternate Fuel Tank Sample, and the 38-1 By Product Fuel Sample from the Methomyl Unit Process.

**PRINCIPLE:**

Sulfur is determined by the Dohrmann Sulfur and Chlorine Analyzer.

**EQUIPMENT:**

Dohrmann Sulfur and Chlorine Analyzer (Rosemont MCTS-130/120)
10-ml Volumetric flasks
Disposable Pipettes
Digital Balance ( Mettler AE160 or equivalent)
Wheaton 1-ml Vials
Wheaton 1-ml Vial Caps

**REAGENTS:**

Sulfur Standard (See Calibration of Dohrmann for Preparation of Standard)
Dohrmann Sulfur Electrolyte
Isopropanol

**SAMPLE PREPARATION:**

**25-6**
Weigh approximately 0.01xx grams of sample into a 10-ml volumetric flask.
Fill to the mark with Isopropanol and mix well.

**38-1**
Weigh approximately 0.04xx grams of sample into a 10-ml volumetric flask. Fill to the mark with Isopropanol and mix well.

**PROCEDURE:**

1. Prepare and Calibrate the Dohrmann using the autosampler.
2. Put prepared 25-6 and 38-1 samples into 1-ml Wheaton vials and load on the autosampler, placing a flush sample in between each sample run.
3. Press RUN to start the sample sequence.

**CALCULATIONS:**
8.660 ALE 12-21-98
~~7.854~~/sample weight x average reading from Dohrmann in PPM / 10,000 = % SULFUR

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ATOMIC ABSORPTION MANUAL

METHOD: DOHR6
DATE: 10-30-96
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SYNGAS AND DOHRMANN PARTS AND SUPPLIES LIST

**SOLVENTS AND REAGENTS:**

| Description | Catalog Number |
|---|---|
| Isopropanol | EM-PX-1838-1 |
| Methanol | EM-MX-0475-1 |
| PH Buffer 4 | 34170-127 |
| pH Buffer 7 | 34170-130 |
| pH Buffer 10 | 34170-133 |
| Sulfur Electrolyte | VW5905-1 |
| 0.5N Potassium Hydroxide (in H2O) | VW3906-4 |
| 0.10N Perchloric Acid in Acetic Acid | VW3210-4 |
| Acetic Acid, Neutralized | VW5864-4 |
| Boiling Chips | 26397-103 |

**DOHRMANN PARTS:**
(3rd Party order through VWR)

| Description | Part Number |
|---|---|
| Syringe, 10µl, Standard for Trace Autosampler | 071-101 |
| Syringe, 10µl, Viscous for Trace Autosampler | 071-102 |
| Needle, 10µl, std, 0.005" I.D, Trace Autosampler | 071-105 |
| Needle, 10µl, visc/smp., 0.11"ID,Trace Autosampler | 071-106 |
| Septa, diverter valve (Flat Red Septa) | 071-113 |
| Packing, diverter valve (Teflon by red septa) | 071-115 |
| Packing , Syringe Valve (Teflon in syringe) | 071-116 |
| Exit Tubes, MCTS-130/120,701,DN1000 | 511-612 |
| Septa, injection port, gray, pkg/100 | 517-804 |

**Note:** For additional parts not listed, see parts list located in the front of the Dohrmann Instrument Manual.

**GENERAL:**

| Description | Catalog Number |
|---|---|
| 1-ml Wheaton Vials for Dohrmann Autosampler | 16171-283 |
| Red Septa Caps for 1-ml Wheaton Vials | 66011-182 |
| Rubber Stopper Septa (For EP-14 samples) | 224100-020 |
| Rubber Stopper Septa (EP-14 Large) | 16170-462 |
| Hamilton 5-ml Gas Tight Syringe | 60376-321 Hamilton # 81517 |
| Hamilton 10µl #701 26 gauge with 3 in. needle Tip Style # 2 | Hamilton # 80384 |

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QUALITY CONTROL LABORATORY
ATOMIC ABSORPTION MANUAL

METHOD: DOHR7
DATE: 11-1-96
SUPERSEDES: NEW
PAGE: 1 OF 1

SAMPLE POINT EP14 #1 and #2 VENT BLOWER

**PURPOSE:**

To determine the amount of Sulfur present in the EP-14 Vent Blower Samples from the Larvin Unit.

**PRINCIPLE:**

Sulfur content is determined by Dohrmann Sulfur and Chlorine Analyzer Model # MCTS-130/120

**EQUIPMENT:**

Dohrmann Sulfur and Chlorine Analyzer (Rosemont MCTS-130/120)
(2) 5-ml Hamilton Gastight Syringe
Two Glass, Nitrogen Purged, Red Rubber Stoppered Sample Dilution Bottles (Label #1 and # 2)
Small Red Rubber Tips
Electrical Tape

**PROCEDURE:**

1. Set-up and Calibrate instrument according to the Auto-sampler or Manual Syringe Method.
2. After calibration is complete, if system is not in mode for Manual Syringe Injection, change it to this. In the sampling screen, change the sample weight from 3.93 to 0.069, and turn on the sample I.D.
3. Prepare Samples by first taping the small Red Rubber Sampling Tip on the end of each cylinder with electrical tape.
4. After the sampling tip is firmly secured on the cylinders, open them up only on the end with the tip attached.
5. Take one of the 5-ml Gastight Syringes (label it Step #1) and insert it into the end of the Sample cylinder labeled "Vent Blower #1". Slowly draw out 5-ml of the Gas Sample and inject it into the Nitrogen purged sample bottle labeled #1.
6. Take the same Step #1 Syringe and draw 5-ml of gas sample out of the cylinder labeled "Vent Blower #2" and inject it into the Nitrogen purged sample bottle labeled #2.
7. Shake bottle #1 (Step 5) vigorously for approximately 20 seconds.
8. Insert gas tight syringe labeled Step #2 into the Sample bottle through the septum and slowly draw out 5-ml of sample.
9. Press the RUN button on the control panel, enter the sample I.D. as 14-1.1, select YES to the ready to inject? question.
10. Wait for the instrument to sound, then begin injection slow injection of sample into Dohrmann.
11. After the run is complete, repeat analysis three times. The instrument will give an average of the three runs.
12. Repeat Steps 7-11 for sample #2 Vent Blower.

**CALCULATION:**

Average PPM reading from the Dohrmann / 10,000 = % Sulfur

000309

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INSTITUTE PLANT
QUALITY CONTROL LABORATORY
ATOMIC ABSORPTION MANUAL

METHOD: DOHR8
DATE: 11-1-96
SUPERSEDES: NEW
PAGE: 1 OF 1

SAMPLE POINTS 8001 AND 8002 DESULFURIZER INLET AND DESULFURIZER OUTLET

**PURPOSE:**

To determine the PPM of Sulfur in the Desulfurizer Inlet and Desulfurizer Outlet Samples from the Syn Gas Unit Process.

**PRINCIPLE:**

Sulfur amount in the Desulfurizer Inlet Sample is determined by the Dohrmann Sulfur and Chlorine Analyzer.

**EQUIPMENT:**

Dohrmann Sulfur and Chlorine Analyzer (Rosemont MCTS-130/120)
5-ml Hamilton Gastight Syringe
6-10 inch piece of 1/2" Yellow Laboratory tubing connected with cylinder attachment on one end and a hosecock on the other

**PROCEDURE:**

1. Calibrate instrument using the Autosampler or Manual Syringe Method.
2. After calibration is complete, if system is not in mode for Manual Syringe Injection, change it to this. In the sampling screen, change the sample weight from 3.93 to 6.7, and turn on the sample I.D.
3. Connect the Cylinder attachment with hose and hosecock onto the cylinder. Adjust the hosecock down to where sample flow is minimized coming out of the end of the tubing.
4. Take the 5-ml Gastight syringe and insert into the tubing to gather the sample.
5. Open the end of the cylinder with the hose attachment, and start a slow gas sample flow through the tubing. Once the flow of sample has started, collect 5-ml of sample in the Gastight Syringe. Make sure to close the cylinder valve off immediately after collection in order to have sample for two more injections.
6. Press RUN on the control panel, enter the Sample I.D. of 8001 or 8002, press YES to the Are you Ready? Question, wait for the instrument to sound, and inject 5-ml of sample slowly into the instrument.
7. Repeat the injection two more times for a total of three runs. The instrument will average the runs.
8. Repeat Steps 1-7 for the Desulfurizer Outlet Sample.

**CALCULATION:**

ng/mg reading from the Dohrmann = PPM Sulfur

000310

RHONE-POULENC AG COMPANY
INSTITUTE PLANT
QUALITY CONTROL LABORATORY
ATOMIC ABSORPTION MANUAL

METHOD: DOHR9
DATE: 10-30-96
SUPERSEDES: NEW
PAGE: 1 OF 1

SAMPLE POINT 5003 - 1021 TANK SAMPLES FOR SULFUR

**PURPOSE:**

To determine the Sulfur content in the 1021 Tank Process Residues Sample from the Power House.

**PRINCIPLE:**

Sulfur is determined by the Dohrmann Sulfur and Chlorine Analyzer.

**EQUIPMENT:**

Dohrmann Sulfur and Chlorine Analyzer (Rosemont MCTS-130/120)
10-ml Volumetric flasks
Disposable Pipettes
Digital Balance ( Mettler AE160 or equivalent)
Wheaton 1-ml Vials
Wheaton 1-ml Vial Caps

**REAGENTS:**

Sulfur Standard (See Calibration of Dohrmann for Preparation of Standard)
Dohrmann Sulfur Electrolyte
Isopropanol

**SAMPLE PREPARATION:**

Weigh approximately 0.04xx grams of sample into a 10-ml volumetric flask. Fill to the mark with ~~Isopropanol~~ and mix well.
Toluene [illegible] 9-17-98

**PROCEDURE:**

1. Prepare and Calibrate the Dohrmann using the autosampler.
2. Put prepared 1021 Tank samples into 1-ml Wheaton vials and load on the autosampler, placing a flush sample in between each sample run.
3. Press RUN to start the sample sequence.

**CALCULATIONS:**

7.854 sample weight x average reading from Dohrmann in PPM / 10,000 = % SULFUR
8.660 [illegible] 10-15-96

000311

RHONE-POULENC AG COMPANY
INSTITUTE PLANT
QUALITY CONTROL LABORATORY
ATOMIC ABSORPTION MANUAL

METHOD: DOHR10
DATE: 11-7-96
SUPERSEDES: NEW
PAGE: 1 OF 1

SAMPLE POINT 6003 SCRUBBER FEED

**PURPOSE:**

To determine the Sulfur content in the 6033 Scrubber Feed Sample from the Napthol Unit Process.

**PRINCIPLE:**

Sulfur is determined by the Dohrmann Sulfur and Chlorine Analyzer.

**EQUIPMENT:**

Dohrmann Sulfur and Chlorine Analyzer (Rosemont MCTS-130/120)
10-ml Volumetric flasks
Disposable Pipettes
Digital Balance ( Mettler AE160 or equivalent)
Wheaton 1-ml Vials
Wheaton 1-ml Vial Caps

**REAGENTS:**

Sulfur Standard (See Calibration of Dohrmann for Preparation of Standard)
Dohrmann Sulfur Electrolyte
Isopropanol

**SAMPLE PREPARATION:**

Weigh out approximately 1 gram of sample into a 10-ml volumetric flask and fill to the mark with Isopropanol. Mix well.
**Note**: If this prep is too dilute you can use a 50/50 mix of sample and Isopropanol. (5ml of each in a 10-ml flask)**

**PROCEDURE:**

1. Prepare and Calibrate the Dohrmann using the autosampler.
2. Put prepared 6033 Scrubber Feed sample into 1-ml Wheaton vials and load on the autosampler, placing a flush sample in between each sample run.
3. Press RUN to start the sample sequence.

**CALCULATIONS:**

7.854/sample weight x average reading from Dohrmann in PPM / 10,000 = % SULFUR

**If a 50/50 Mix is used, then the calculation is simply the reading from the Dohrmann X 2 = PPM SULFUR

000312

*Aventis CropScience*

Aventis

August 31, 2001

HAND DELIVERED

Ms. Laura Crowder
WV Division of Environmental Protection
Office of Air Quality
7012 MacCorkle Avenue, SE
Charleston, West Virginia 25304-2943

Dear Ms. Crowder:

Attached is the addendum, we discussed this week, to our previously submitted Visible Emission and Sulfur Oxide Monitoring Plan on February 28, 2001.

Additionally, the Rhodimet Unit Sulfur Dioxide monitoring plan we discussed is enclosed in accordance with West Virginia Regulation 10.

Should you have any questions concerning these plans, please contact me at (304) 767-6595.

Sincerely,

C. L. Stewart
Environmental Specialist

Aventis CropScience • Institute Site • P.O. Box 2831 • Charleston, WV 25330 • www.aventis.com

# Aventis Animal Nutrition
# Rhodimet AT-88® Unit
## West Virginia Regulation 10
## Sulfur Dioxide Monitoring Plan

**General:**

Aventis Animal Nutrition produces an animal feed supplement, Rhodimet AT-88®. Various process emissions are vented through header systems and are treated in the Unit's process thermal oxidizer. During the treatment process, sulfur-bearing compounds are converted to sulfur dioxide. Emissions from the process thermal oxidizer are routed to the Unit's caustic scrubber where sulfur dioxide emissions are treated.

**Sulfur Dioxide Monitoring Plan:**

Regulation 10's emission standard for manufacturing process source operations limits sulfur dioxide emissions to an in-stack concentration of 2000 ppmv. Previous stack testing indicates that in-stack sulfur dioxide emissions were less than 10 ppmv at the Unit's maximum achievable production rates. Measured in-stack concentrations were well below 90 percent of the regulatory limit; therefore, installation of Continuous Emission Monitor Systems (CEMS) are not required.

Several caustic scrubber parameters are monitored every 2 hours via DCS system for liquor recirculation flow rate and pH. These are industry standard scrubber control parameters that are indicative of scrubber performance and ensure efficient sulfur dioxide absorption and neutralization. To ensure proper scrubber operations and compliance with the regulatory limit, Aventis will maintain these parameters within the scrubber Manufacture's recommended operating conditions. These conditions are as following:

| | |
|---|---|
| Recirculation Flow Rate | ≥ 400 gpm |
| pH | ≥ 5 |

**Response Plan:**

The caustic scrubber is designed with several back-up systems to ensure continuous operations. These systems include a spare recirculation pump and redundant on-line pH meters. Should a pump failure occur, the pump could be quickly switch out with the spare pump. With redundant pH meters, calibrations or repairs can be made on one meter while the scrubber continues to operate on the other.

# Aventis Animal Nutrition
# Rhodimet AT-88® Unit
## West Virginia Regulation 10
## Sulfur Dioxide Monitoring Plan

**Proposed Compliance Testing Schedule:**

Measured in-stack sulfur dioxide concentrations were below 10 ppmv. As compared to the regulatory standard of 2000 ppmv, these concentrations are approximately 1 percent of the allowable limit.

Regulation 10A, Section 5.1.a establishes a Fuel Burning Unit compliance test schedule. Units with sulfur dioxide emissions less than 50 percent of the allowable factor are not required to perform addition tests. Since the Rhodimet scrubber in-stack sulfur dioxide is less than 50 percent of Regulation 10's allowable limit, Aventis proposes to adopt the same philosophy incorporated in Section 5.1.a and perform no additional tests.

Page 2 of 2

# ATTACHMENT B

CAIR Permit Application

# CAIR Permit Application

Page 1

**For sources subject to the Clean Air Interstate Rule Trading Programs under 45CSR39, 45CSR40 and 45CSR41, the West Virginia Department of Environmental Protection, Division of Air Quality has prepared this CAIR Permit Application.**
**Please refer to sections 21 and 22 of 45CSR39, 45CSR40 and 45CSR41, as applicable.**

**This submission is: X New ☐ Revised**

**STEP 1**
**Identify the source by plant name, and ORIS or facility code**

| Plant Name | West Virginia ID Number | ORIS/Facility Code |
|---|---|---|
| Bayer CropScience, Institue | 03900007 | 880053 |

**STEP 2**
**Enter the unit ID# for each CAIR unit and indicate to which CAIR programs each unit is subject (by placing an "X" in the column)**

| Unit ID# | $NO_x$ Annual | $NO_x$ Ozone Season | $SO_2$ Annual |
|---|---|---|---|
| 070 (Boiler 10) | | X | |
| 080 (Boiler 11) | | X | |
| 090 (Boiler 12) | | X | |
| | | | |
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**STEP 3**
**Read the standard requirements and the certification, enter the name of the CAIR designated representative, and sign and date**

**Standard Requirements**

(a) Permit Requirements.

(1) The CAIR designated representative of each CAIR $NO_x$ Annual source, CAIR $NO_x$ Ozone Season source and CAIR $SO_2$ source (as applicable) required to have a Title V operating permit and each CAIR $NO_x$ Annual unit, CAIR $NO_x$ Ozone Season unit and CAIR $SO_2$ unit (as applicable) required to have a Title V operating permit at the source shall:

(i) Submit to the Secretary a complete CAIR permit application under 45CSR§39-22, 45CSR§40-22 and 45CSR§41-22 (as applicable) in accordance with the deadlines specified in 45CSR§39-21, 45CSR§40-21 and 45CSR§41-21 (as applicable); and

(ii) Submit in a timely manner any supplemental information that the Secretary determines is necessary in order to review a CAIR permit application and issue or deny a CAIR permit.

(2) The owners and operators of each CAIR $NO_x$ Annual source, CAIR $NO_x$ Ozone Season source and CAIR $SO_2$ source (as applicable) required to have a Title V operating permit and each CAIR $NO_x$ Annual unit, CAIR $NO_x$ Ozone Season unit and CAIR $SO_2$ unit (as applicable) required to have a Title V operating permit at the source shall have a CAIR permit issued by the Secretary under sections 20 through 24 of 45CSR39, 45CSR40 and 45CSR41 (as applicable) for the source and operate the source and the unit in compliance with such CAIR permit.

(3) Except as provided in sections 80 through 88 of 45CSR39, 45CSR40 and 45CSR41, the owners and operators of a CAIR $NO_x$ Annual source, CAIR $NO_x$ Ozone Season source and CAIR $SO_2$ source (as applicable) that is not otherwise required to have a Title V operating permit and each CAIR $NO_x$ Annual unit, CAIR $NO_x$ Ozone Season unit and CAIR $SO_2$ unit (as applicable) that is not otherwise required to have a Title V operating permit are not required to submit a CAIR permit application and to have a CAIR permit, under sections 20 through 24 of 45CSR39, 45CSR40 and 45CSR41 (as applicable) for such CAIR $NO_x$ Annual source, CAIR $NO_x$ Ozone Season source and CAIR $SO_2$ source (as applicable) and such CAIR $NO_x$ Annual unit, CAIR $NO_x$ Ozone Season unit and CAIR $SO_2$ unit (as applicable).

**STEP 3, continued**

(b) Monitoring, reporting and recordkeeping requirements.

(1) The owners and operators and the CAIR designated representative, of each CAIR $NO_x$ Annual source, CAIR $NO_x$ Ozone Season source and CAIR $SO_2$ source (as applicable) and each CAIR $NO_x$ Annual unit, CAIR $NO_x$ Ozone Season unit and CAIR $SO_2$ unit (as applicable) at the source shall comply with the monitoring, reporting and recordkeeping requirements of sections 70 through 75 of 45CSR39, 45CSR40 and 45CSR41 (as applicable).

(2) The emissions measurements recorded and reported in accordance with sections 70 through 75 of 45CSR39, 45CSR40 and 45CSR41 (as applicable) shall be used to determine compliance by each CAIR $NO_x$ Annual source, CAIR $NO_x$ Ozone Season source and CAIR $SO_2$ source (as applicable) with the CAIR $NO_x$ Annual emissions limitation, CAIR $NO_x$ Ozone Season emissions limitation and CAIR $SO_2$ emissions limitation (as applicable) under 45CSR§39-6.3, 45CSR§40-6.3 and 45CSR§41-6.3 (as applicable).

(c) Nitrogen oxides annual emissions requirements.

(1) As of the allowance transfer deadline for the 2009 control period and each control period thereafter, the owners and operators of each CAIR $NO_x$ Annual source and each CAIR $NO_x$ Annual unit at the source shall hold, in the source's compliance account, CAIR $NO_x$ Annual allowances available for compliance deductions for the control period under 45CSR§39-54.1 in an amount not less than the tons of total nitrogen oxides emissions for the control period from all CAIR $NO_x$ Annual units at the source, as determined in accordance with sections 70 through 75 of 45CSR39.

(2) A CAIR $NO_x$ Annual unit shall be subject to the requirements under 45CSR§39-6.3.a for the control period starting on the later of January 1, 2009 or the deadline for meeting the unit's monitor certification requirements under subdivisions 70.2.a, 70.2.b, or 70.2.e of 45CSR39, and for each control period thereafter.

(3) A CAIR $NO_x$ Annual allowance shall not be deducted, for compliance with the requirements under 45CSR§39-6.3.a, for the control period in a calendar year before the year for which the CAIR $NO_x$ Annual allowance was allocated.

(4) CAIR $NO_x$ Annual allowances shall be held in, deducted from, or transferred into or among CAIR $NO_x$ Allowance Tracking System accounts in accordance with sections 50 through 62, and 80 through 88 of 45CSR39.

(5) A CAIR $NO_x$ Annual allowance is a limited authorization to emit one ton of nitrogen oxides in accordance with the CAIR $NO_x$ Annual Trading Program. No provision of the CAIR $NO_x$ Annual Trading Program, the CAIR permit application, the CAIR permit, or an exemption under 45CSR§39-5 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.

(6) A CAIR $NO_x$ Annual allowance does not constitute a property right.

(7) Upon recordation by the Administrator under sections 40 through 62, and 80 through 88 of 45CSR39, every allocation, transfer, or deduction of a CAIR $NO_x$ Annual allowance to or from a CAIR $NO_x$ Annual source's compliance account is incorporated automatically in any CAIR permit of the source.

(d) Nitrogen oxides ozone season emissions requirements.

(1) As of the allowance transfer deadline for the 2009 ozone season and each ozone season thereafter, the owners and operators of each CAIR $NO_x$ Ozone Season source and each CAIR $NO_x$ Ozone Season unit at the source shall hold, in the source's compliance account, CAIR $NO_x$ Ozone Season allowances available for compliance deductions for the ozone season under 45CSR§40-54.1 in an amount not less than the tons of total nitrogen oxides emissions for the ozone season from all CAIR $NO_x$ Ozone Season units at the source, as determined in accordance with sections 70 through 75 of 45CSR40.

(2) A CAIR $NO_x$ Ozone Season unit shall be subject to the requirements under 45CSR§40-6.3.a for the ozone season starting on the later of May 1, 2009 or the deadline for meeting the unit's monitor certification requirements under subdivisions 70.2.a, 70.2.b, 70.2.c or 70.2.g of 45CSR40 and for each ozone season thereafter.

(3) A CAIR $NO_x$ Ozone Season allowance shall not be deducted, for compliance with the requirements under 45CSR§40-6.3.a, for an ozone season in a calendar year before the year for which the CAIR $NO_x$ Ozone Season allowance was allocated.

(4) CAIR $NO_x$ Ozone Season allowances shall be held in, deducted from, or transferred into or among CAIR $NO_x$ Ozone Season Allowance Tracking System accounts in accordance with sections 50 through 62, and 80 through 88 of 45CSR40.

(5) A CAIR $NO_x$ Ozone Season allowance is a limited authorization to emit one ton of nitrogen oxides in accordance with the CAIR $NO_x$ Ozone Season Trading Program. No provision of the CAIR $NO_x$ Ozone Season Trading Program, the CAIR permit application, the CAIR permit, or an exemption under 45CSR§40-5 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.

(6) A CAIR $NO_x$ Ozone Season allowance does not constitute a property right.

(7) Upon recordation by the Administrator under subdivision 43.3, sections 51 through 57, 60 through 62, and 80 through 88 of 45CSR40, every allocation, transfer, or deduction of a CAIR $NO_x$ Ozone Season allowance to or from a CAIR $NO_x$ Ozone Season source's compliance account is incorporated automatically in any CAIR permit of the source.

(e) Sulfur dioxide annual emission requirements.

(1) As of the allowance transfer deadline for the 2010 control period and each control period thereafter, the owners and operators of each CAIR $SO_2$ source and each CAIR $SO_2$ unit at the source shall hold, in the source's compliance account, a tonnage equivalent of CAIR $SO_2$ allowances available for compliance deductions for the control period, as determined in accordance with subsections 54.1 and 54.2 of 45CSR§41 in an amount not less than the tons of total sulfur dioxide emissions for the control period from all CAIR $SO_2$ units at the source, as determined in accordance with sections 70 through 75 of 45CSR41.

(2) A CAIR $SO_2$ unit shall be subject to the requirements under 45CSR§41-6.3.a for the control period starting on the later of January 1, 2010 or the deadline for meeting the unit's monitor certification requirements under subdivisions 70.2.a, 70.2.b, or 70.2.e of 45CSR41 and for each control period thereafter.

(3) A CAIR $SO_2$ allowance shall not be deducted, for compliance with the requirements under 45CSR§41-6.3.a, for a control period in a calendar year before the year for which the CAIR $SO_2$ allowance was allocated.

(4) CAIR $SO_2$ allowances shall be held in, deducted from, or transferred into or among CAIR $SO_2$ Allowance Tracking System accounts in accordance with sections 51through 62, and 80 through 88 of 45CSR41.

(5) A CAIR $SO_2$ allowance is a limited authorization to emit sulfur dioxide in accordance with the CAIR $SO_2$ Trading Program. No provision of the CAIR $SO_2$ Trading Program, the CAIR permit application, the CAIR permit, or an exemption under 45CSR§41-5 and no provision of law shall be construed to limit the authority of the state or the United States to terminate or limit such authorization.

(6) A CAIR $SO_2$ allowance does not constitute a property right.

(7) Upon recordation by the Administrator under sections 51 through 57, 60 through 62, and 80 through 88 of 45CSR41, every allocation, transfer, or deduction of a CAIR $SO_2$ allowance to or from a CAIR $SO_2$ source's compliance account is incorporated automatically in any CAIR permit of the source.

STEP 3, continued

(f) Excess emissions requirements.

(1) If a CAIR $NO_x$ Annual source emits nitrogen oxides during any control period in excess of the CAIR $NO_x$ Annual emissions limitation, then:

(i) The owners and operators of the source and each CAIR $NO_x$ Annual unit at the source shall surrender the CAIR $NO_x$ Annual allowances required for deduction under 45CSR§39-54.4.a and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or West Virginia Code §22-5-1 et seq; and

(ii) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 45CSR39, the Clean Air Act, and West Virginia Code §22-5-1 et seq.

(2) If a CAIR $NO_x$ Ozone Season source emits nitrogen oxides during any ozone season in excess of the CAIR $NO_x$ Ozone Season emissions limitation, then:

(i) The owners and operators of the source and each CAIR $NO_x$ Ozone Season unit at the source shall surrender the CAIR $NO_x$ Ozone Season allowances required for deduction under 45CSR§40-54.4.a and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or West Virginia Code §22-5-1 et seq; and

(ii) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 45CSR40, the Clean Air Act, and West Virginia Code §22-5-1 et seq.

(3) If a CAIR $SO_2$ source emits sulfur dioxide during any control period in excess of the CAIR $SO_2$ emissions limitation, then:

(i) The owners and operators of the source and each CAIR $SO_2$ unit at the source shall surrender the CAIR $SO_2$ allowances required for deduction under 45CSR§41-54.4.a and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or West Virginia Code §22-5-1 et seq; and

(ii) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 45CSR41, the Clean Air Act, and West Virginia Code §22-5-1 et seq.

(g) Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of a CAIR $NO_x$ Annual source, CAIR $NO_x$ Ozone Season source and CAIR $SO_2$ source (as applicable) and each CAIR $NO_x$ Annual unit, CAIR $NO_x$ Ozone Season unit and CAIR $SO_2$ unit (as applicable) at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Secretary or the Administrator.

(i) The certificate of representation under 45CSR§39-13, 45CSR§40-13 and 45CSR§41-13 (as applicable) for the CAIR designated representative for the source and each CAIR $NO_x$ Annual unit, CAIR $NO_x$ Ozone Season unit and CAIR $SO_2$ unit (as applicable) at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation under 45CSR§39-13, 45CSR§40-13 and 45CSR§41-13 (as applicable) changing the CAIR designated representative.

(ii) All emissions monitoring information, in accordance with sections 70 through 75 of 45CSR39, 45CSR40 and 45CSR41 (as applicable), provided that to the extent that sections 70 through 75 of 45CSR39, 45CSR40 and 45CSR41 (as applicable) provides for a 3-year period for recordkeeping, the 3-year period shall apply.

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR $NO_x$ Annual Trading Program, CAIR $NO_x$ Ozone Season Trading Program and CAIR $SO_2$ Trading Program (as applicable).

(iv) Copies of all documents used to complete a CAIR permit application and any other submission under the CAIR $NO_x$ Annual Trading Program, CAIR $NO_x$ Ozone Season Trading Program and CAIR $SO_2$ Trading Program (as applicable) or to demonstrate compliance with the requirements of the CAIR $NO_x$ Annual Trading Program, CAIR $NO_x$ Ozone Season Trading Program and CAIR $SO_2$ Trading Program (as applicable).

(2) The CAIR designated representative of a CAIR $NO_x$ Annual source, CAIR $NO_x$ Ozone Season source and CAIR $SO_2$ source (as applicable) and each CAIR $NO_x$ Annual unit, CAIR $NO_x$ Ozone Season unit and CAIR $SO_2$ unit (as applicable) at the source shall submit the reports required under the CAIR $NO_x$ Annual Trading Program, CAIR $NO_x$ Ozone Season Trading Program and CAIR $SO_2$ Trading Program (as applicable) including those under sections 70 through 75 of 45CSR39, 45CSR40 and 45CSR41 (as applicable).

(h) Liability.

(1) Each CAIR $NO_x$ Annual source, CAIR $NO_x$ Ozone Season source and CAIR $SO_2$ source (as applicable) and each $NO_x$ unit, CAIR $NO_x$ Ozone Season unit and CAIR $SO_2$ unit (as applicable) shall meet the requirements of the CAIR $NO_x$ Annual Trading Program, CAIR $NO_x$ Ozone Season Trading Program and CAIR $SO_2$ Trading Program (as applicable).

(2) Any provision of the CAIR $NO_x$ Annual Trading Program, CAIR $NO_x$ Ozone Season Trading Program or CAIR $SO_2$ Trading Program (as applicable) that applies to a CAIR $NO_x$ Annual source, CAIR $NO_x$ Ozone Season source or CAIR $SO_2$ source (as applicable) or the CAIR designated representative of a CAIR $NO_x$ Annual source, CAIR $NO_x$ Ozone Season source or CAIR $SO_2$ source (as applicable) shall also apply to the owners and operators of such source and of the CAIR $NO_x$ Annual units, CAIR $NO_x$ Ozone Season units or CAIR $SO_2$ units (as applicable) at the source.

(3) Any provision of the CAIR $NO_x$ Annual Trading Program, CAIR $NO_x$ Ozone Season Trading Program or CAIR $SO_2$ Trading Program (as applicable) that applies to a CAIR $NO_x$ Annual unit, CAIR $SO_2$ unit or CAIR $NO_x$ Ozone Season unit (as applicable) or the CAIR designated representative of a CAIR $NO_x$ Annual unit, CAIR $NO_x$ Ozone Season unit or CAIR $SO_2$ unit (as applicable) shall also apply to the owners and operators of such unit.

(i) Effect on Other Authorities.

No provision of the CAIR $NO_x$ Annual Trading Program, CAIR $NO_x$ Ozone Season Trading Program and CAIR $SO_2$ Trading Program (as applicable), a CAIR permit application, a CAIR permit, or an exemption under 45CSR§39-5, 45CSR§40-5, or 45CSR§41-5 (as applicable) shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR $NO_x$ Annual source, CAIR $NO_x$ Ozone Season source and CAIR $SO_2$ source (as applicable) or CAIR $NO_x$ Annual unit, CAIR $NO_x$ Ozone Season unit and CAIR $SO_2$ unit (as applicable) from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, or the Clean Air Act.

| Bayer CropScience, Institute Site<br>Plant Name | CAIR Permit Application<br>Page 4 |
|---|---|

**STEP 3, continued**

**Certification**

I am authorized to make this submission on behalf of the owners and operators of the source or units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

| John M. Wey<br>CAIR Designated Representative | |
|---|---|
| Signature John M Wey | Date 6/15/07 |

## ATTACHMENT C

## RECORD OF TOTAL THROUGHPUT OF FLYASH

Bayer CropScience
Institute Plant
R13-2001B
Year: _____

| Month | Storage Silo, D-910 | | Initials |
|---|---|---|---|
| | Monthly Throughput (tons) | Twelve Month Total (tons) | |
| January | | | |
| February | | | |
| March | | | |
| April | | | |
| May | | | |
| June | | | |
| July | | | |
| August | | | |
| September | | | |
| October | | | |
| November | | | |
| December | | | |

Note: After entering the required information, each entry shall be initialed by a person designated by a Responsible Official.

**The Certification of Data Accuracy statement on the reverse side of this form must be completed and signed by a Responsible Official or Authorized representative within fifteen (15) days after the end of the calendar month. This record shall be maintained on-site for a period of five (5) years from the date of certification. It shall be made available to the Secretary or an authorized representative upon request.**

# ATTACHMENT D

G60-C023

*West Virginia Department of Environmental Protection*
*Division of Air Quality*

*Randy C. Huffman*
*Cabinet Secretary*

# Class II General Permit
# G60-C Registration to Construct

for the
Prevention and Control of Air Pollution in regard to the
Construction, Modification, Relocation, Administrative Update and
Operation of Emergency Generators

*The permittee identified at the facility listed below is authorized to construct the stationary sources of air pollutants identified herein in accordance with all terms and conditions of General Permit G60-C.*

**G60-C023**

**Issued to:**
**Bayer CropScience**
**Institute Facility**
**039-00007**

*John A. Benedict*
*Director*

*Issued: November 19, 2010 • Effective: November 19, 2010*

| | |
|---|---|
| Facility Location: | Institute, Kanawha County, West Virginia |
| Mailing Address: | PO Box 1005<br>Institute, WV 25112 |
| Facility Description: | Emergency Generator |
| SIC Codes: | 2869, 2879 |
| UTM Coordinates: | 432.0 km Easting • 4,248.3 km Northing • Zone 17 |
| Registration Type: | Construction |
| Description of Change: | Installation of an emergency generator |

*Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit or registration issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§ 22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §22-5-14.*

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*The source is not subject to 45CSR30.*

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*Unless otherwise stated WVDEP DAQ did not determine whether the permittee 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.*

**All registered facilities under Class II General Permit G60-C are subject to Sections 1.0, 2.0, 3.0, and 4.0.**

The following sections of Class II General Permit G60-C apply to the registrant:

| | | |
|---|---|---|
| Section 5 | Reciprocating Internal Combustion Engines (R.I.C.E.) | ☒ |
| Section 6 | Tanks | ☒ |
| Section 7 | Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40CFR60 Subpart IIII) | ☒ |
| Section 8 | Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (40CFR60 Subpart JJJJ) | ☐ |

**Emission Units**

| Emission Unit ID | Emission Unit Description (Make, Model, Serial No.) | Year Installed | Design Capacity |
|---|---|---|---|
| EG-1 | Cummins, Inc. Model QSM11-G4 | 2010 | 470 bhp/1,800 rpm |
| 6392N54277 | #2 Fuel Oil Tank | 2010 | 550 gallons |

**Emission Limitations**

| Emission Unit | Pollutant | Maximum Hourly Emissions (lb/hr) | Maximum Annual Emissions (tpy) |
|---|---|---|---|
| EG-1 | Nitrogen Oxides | 2.87 | 0.72 |
| | Carbon Monoxide | 0.02 | 0.05 |
| | Volatile Organic Compounds | 0.02 | 0.05 |
| | Sulfur Dioxide | 0.96 | 0.24 |
| | Particulate Matter-10 | 0.08 | 0.02 |
| | Formaldehyde | 0.01 | 0.01 |

# ATTACHMENT E

G60-C