KEEP PERMIT AT SITE **CONTROL NO. B- 05386**

State of Maryland

Lawrence J. Hogan, Jr.
Governor

Boyd K. Rutherford
Lieutenant Governor

Ben Grumbles
Secretary

DEPARTMENT OF THE ENVIRONMENT

Air and Radiation Management Administration
1800 Washington Boulevard, Suite 720
Baltimore, MD 21230

[ ] Construction Permit

[X] Part 70 Operating Permit

PERMIT NO. 24-003-0468

DATE ISSUED January 1, 2017

PERMIT FEE To be paid in accordance with COMAR 26.11.02.19B(b)

EXPIRATION DATE September 30, 2022

LEGAL OWNER & ADDRESS
Raven Power Fort Smallwood LLC
1005 Brandon Shores Road
Baltimore, MD 21226
Attn: Mr. Thomas Wessinger, Director

SITE
Fort Smallwood Complex
1005 Brandon Shores Road
Baltimore, MD 21226
Anne Arundel County
AI#24040

SOURCE DESCRIPTION

Electric Generating Station consisting of Brandon Shores and Herbert A. Wagner Stations.

This source is subject to the conditions described on the attached pages.

Program Manager

Director, Air and Radiation Management Administration

Maryland Department of the Environment
Air and Radiation Management Administration

PHASE II ACID RAIN PERMIT

Plant Name:	Brandon Shores	
Affected Units:	Unit1 and 2	
Owners:	Raven Power Fort Smallwood LLC	ORIS Code 0602
Effective Date From:	January 1, 2017 To: September 30, 2022	

Contents:

---

1. Statement of Basis

Statutory and Regulatory Authorities: In accordance with Environmental Article§2-401, Annotated Code of Maryland and Titles IV and V of the Clean Air Act, the Maryland Department of the Environment, Air and Radiation Management Administration issues this permit pursuant to COMAR 26.11.02 and COMAR 26.11.03.

Renewal Permit Approval

George S. Aburn, Jr , Director
Air and Radiation Management Administration

1/1/17
Date of Issue

Plant Name: Brandon Shores

2. SO_2 and NO_x Requirements for each affected unit

Units No. 1 and 2

SO_2 Requirements	
SO_2 Allowances	Raven Power Fort Smallwood LLC will hold allowances for each unit in accordance with 40 CFR 72.9(c)(1).

NO_x Requirements					
NO_X Limit-lbs/mmBTU	Year				
	2016	2017	2018	2019	2020
Unit No. 1	0.46	0.46	0.46	0.46	0.46
Unit No. 2	0.46	0.46	0.46	0.46	0.46

3. Comments, notes and justifications regarding decisions, and changes made to the permit application forms during the review process:

1. The SO_2 allowances allocated by the United States Environmental Protection Agency (U S EPA) to the units are listed in Table 2 of 40 CFR Part 73. However, the number of allowances actually held by an affected source's account may differ from the number allocated by the U.S. EPA.

2. Units No. 1 and 2 are subject to the standard NO_X emission rate for dry bottom wall-fired coal boilers.

Renewal Permit Approval

George S. Aburn, Jr., Director
Air and Radiation Management Administration

1/1/17
Date of Issue

Maryland Department of the Environment
Air and Radiation Management Administration

CO_2 BUDGET TRADING PROGRAM PERMIT

Plant Name: Brandon Shores	
Affected Trading Units: 000001 and 000002	
Owner: Raven Power Fort Smallwood LLC	**ORIS Code** 00602
Effective Date From: January 1, 2017 To: September 30, 2022	

Contents:

1. Statement of Basis

Statutory and Regulatory Authorities: In accordance with Environmental Article §2-401, Annotated Code of Maryland, the Maryland Department of the Environment, Air and Radiation Management Administration issues this permit pursuant to COMAR 26.09.01 thru COMAR 26.09.04.

Initial Permit Approval

George S. Aburn, Jr., Director
Air and Radiation Management Administration

1/1/17
Date of Issue

2. Affected Units

Unit ID #	ARMA ID #	Unit Description
000001	3-0015	685 MWe (approx) coal-fired boiler
000002	3-0016	685 MWe (approx) coal-fired boiler

3. Standard Requirements:

(A) Selection and Responsibilities of CO_2 Budget Source Compliance Account Authorized Account Representatives.

(1) Each CO_2 budget source shall have a CO_2 authorized account representative and an alternate CO_2 authorized account representative.
(COMAR 26.09.01.04B)

(2) Upon receipt of a complete account certificate of representation:

(a) The CO_2 authorized account representative and alternate CO_2 authorized account representative shall represent and, by representations, actions, inactions, or submissions, legally bind each owner or operator of the CO_2 budget source represented and each CO_2 budget unit at the source in all matters pertaining to this subtitle, notwithstanding any agreement between the CO_2 authorized account representative, alternate CO_2 authorized account representative, and the owners or operators; and
(COMAR 26.09.01.04E (1))

(b) The owners or operators shall be bound by any decision or order issued to the CO_2 authorized account representative or alternate CO_2 authorized account representative by the Department or a court regarding the CO_2 budget source or unit.
(COMAR 26.09.01.04E (2))

(3) A CO_2 budget permit may not be issued or a compliance account established for a CO_2 budget source until the Department has received a complete account certificate of representation for a CO_2 authorized account representative and alternate CO_2 authorized account representative of the source and the CO_2 budget units at the source.
(COMAR 26.09.01.04F)

(4) Each submission shall be signed and certified by the CO_2 authorized account representative or alternate CO_2 authorized account representative on behalf of each CO_2 budget source and shall include the following statement by the CO_2 authorized account representative or alternate CO_2 authorized account representative: "I am authorized to make the submission on behalf of the owners or operators of the CO_2 budget sources or CO_2 budget 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 the 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."
(COMAR 26.09.01.04G)

(B) Distribution Of CO_2 Allowances And Compliance

(1) Unless otherwise specified in this chapter, a CO_2 budget source shall demonstrate compliance with its CO_2 budget emissions limitation by having one CO_2 allowance in its compliance account for every ton of CO_2 that it emits in a control period, by the allowance transfer deadline for that control period.
(COMAR 26.09.02.03E(1))

(2) The following CO_2 allowances may be deducted from a compliance account for purposes of complying with a budget source's CO_2 budget emissions limitation for a certain control period

(a) CO_2 allowances that are not CO_2 offset allowances and are identified as allowances falling within a prior control period or the same control period for which the allowances are deducted;

(b) CO_2 allowances that are held or transferred into the CO_2 budget source's compliance account as of the CO_2 allowance transfer deadline for that control period;

(c) CO_2 offset allowances that are available to be deducted for compliance during a control period may not exceed the following:

(i) 3.3 percent;

(ii) 5 percent, if the Department determines that there has been a Stage 1 trigger event; and

(iii) 10 percent, if the Department determines that there has been a Stage 2 trigger event.
(COMAR 26.09.02.03E(2)(a)-(c))

(3) The Department shall deduct CO_2 allowances from the CO_2 budget source's compliance account until the number of CO_2 allowances deducted equals the number of tons of total CO_2 emissions, less any CO_2 emissions attributable to the burning of eligible biomass.
(COMAR 26.09.02.03E (3))

(4) The identification of available CO_2 allowances for compliance deduction by serial number or by default is as follows:

(a) The CO_2 authorized account representative for a source's compliance account may request that specific CO_2 allowances, identified by serial number for a control period, be deducted; and

(b) In the absence of an identification or in the case of a partial identification of available CO_2 allowances by serial number, the Department shall deduct CO_2 allowances for a control period in the following descending order:

(i) For the first control period, all CO_2 allowances purchased by direct sale from the Department during years 2009, 2010, and 2011 resulting from the occurrence of the $7 auction clearing price;

(ii) All CO_2 allowances for a control period allocated to a CO_2 budget unit from the Long Term Contract Set-aside Account or the Clean Generation Set-aside Account;

(iii) Subject to the relevant compliance deduction limitations identified in §E(2)(c) of this regulation, any CO_2 offset allowances transferred and recorded in the compliance account, in chronological order; and

(iv) Any CO_2 allowances, other than those identified in §E(4)(b)(i) — (iii) of this regulation, that are available for deduction in the order they were recorded.

(COMAR 26.09.02.03E (4)(a)-(b))

(5) Deductions for Excess Emissions:

(a) If a CO_2 budget source has excess emissions, the Department shall deduct, from the CO_2 budget source's compliance account, CO_2 allowances from allocation years that occur after the control period in which the source has excess emissions that equal three times the number of the source's excess emissions.

(b) If a source has insufficient CO_2 allowances to cover three times the number of the source's excess emissions, the source shall immediately transfer sufficient allowances into its compliance account.

(c) CO_2 offset allowances may not be deducted to account for the source's excess emissions.

(d) Any CO_2 allowance deduction does not affect the liability of the owners or operators of the CO_2 budget units at the source for any fine, penalty, or assessment, or their obligation to comply with any other remedy, for the same violation, as ordered under applicable State law.
(COMAR 26.09.02.03E (5)(a)-(d))

(6) The following guidelines apply in assessing fines, penalties, or other obligations:

(a) For purposes of determining the number of days of violation, if a CO_2 budget unit has excess emissions for a control period, each day in the control period constitutes a day of violation unless the owners or operators of the unit can demonstrate to the satisfaction of the Department that a lesser number of days should be considered; and

(b) The Department shall consider the amount of excess emissions in determining the severity of the violation.
(COMAR 26.09.02.03E (6)(a)-(b))

(7) If the CO_2 budget source's compliance account no longer exists, the CO_2 allowances shall be deposited in a general account selected by the owner or operator of the CO2 budget source.
(COMAR 26.09.02.03E (7))

(8) Adjustments and Errors:

(a) The Department may review and conduct independent audits concerning any submission under this subtitle and make appropriate adjustments of the information, if necessary.

(b) The Department may correct any error in any account and, within 10 business days of making any correction, notify the CO_2 authorized account representative for the account
(COMAR 26.09.02.03E (8)(a)-(b))

(C) Applicability and Administration

(1) The requirements of this permit apply to the owner or operator of a CO_2 budget unit. When this permit establishes a requirement such as the submittal of a permit application, a report, a request for allowances or transfer of allowances, or general information, these actions shall be achieved through the authorized account representative on behalf of the owner or operator of the affected CO_2 budget source or unit.
(COMAR 26.09.02.02A)

(2) The requirements of this subtitle are effective on January 1, 2009 or, for new CO_2 budget units, on the day on which the unit commences operation.

(COMAR 26.09.02.02C).

(3) The provisions of this permit do not exempt or otherwise relieve the owners or operators of a CO_2 budget source from achieving compliance with any other provision of applicable State and federal laws and regulations.
(COMAR 26.09.02.02D).

(4) Unless otherwise stated under this subtitle, any time period scheduled to begin:

(a) On the occurrence of an act or event, begins on the day the act or event occurs; and

(b) Before the occurrence of an act or event, is computed so that the period ends the day before the act or event occurs.
(COMAR 26.09.02.02F)

(5) Unless otherwise stated, if the final day of any time period for performing an act required by this subtitle falls on a weekend or on a State or federal holiday, the time period is extended until or to the next business day.
(COMAR 26.09.02.02G)

(D) Permit Requirements

(1) The account representative or designate alternate account representative) of each affected unit at a source, (every fossil fuel fired unit with a nameplate capacity of 25 MW or greater) for that source shall comply with the following:

(a) The CO_2 authorized account representative for the source shall submit an initial CO_2 budget permit application by October 1, 2008, or 12 months before the date on which the CO_2 budget source, or a new unit at the source, commences operation.
(COMAR 26.09.02.04A (2));

(b) The CO_2 budget permit application shall include the following in a format prescribed by the Department: 1) the identification of the CO_2 budget source; 2) facility name and the ORIS (Office of Regulatory Information Systems) or facility code assigned to the source by the Energy Information Administration of the U. S. Department of Energy, if applicable; 3) each CO_2 budget unit at the source; and 4) other information required by the Department.
(COMAR 26.09.02.04A (3))

(c) The authorized account representative for the source shall submit a complete application for the renewal of an existing CO_2 budget permit on forms provided by the Department not later than 90 days before the expiration of the current CO_2 budget permit.
(COMAR 26.09.02.04 E)

(2) Each CO_2 budget source shall apply for and have in effect a CO_2 budget permit that contains all applicable requirements.
(COMAR 26.09.02.04A (1)).

(3) The CO_2 budget permit issued by the Department shall be separate but attached to the budget source's Part 70 permit.
(COMAR 26.09.02.04B)

(4) A CO_2 budget permit expires 5 years from the date of issuance by the Department, unless an earlier expiration date is specified in the permit.
(COMAR 26.09.02.04D)

(E) Monitoring, Initial Certification and Recertification Requirements

(1) For each control period in which a CO_2 budget source is subject to the CO_2 budget emissions limitation, the CO_2 authorized account representative of the source shall submit a compliance certification report by the March 1 following the relevant control period.
(COMAR 26.09.02.05 A (1))

(2) The CO_2 authorized account representative shall include in the compliance certification report the following:

(a) Identification of the source and each CO_2 budget unit at the source;

(b) At the CO_2 authorized account representative's option, the serial numbers of the CO_2 allowances that are to be deducted from the source's compliance account for the control period, including the serial numbers of any CO_2 offset allowances that are to be deducted subject to applicable limitations; and

(c) The compliance certification required by §A(3) of COMAR 26.11.02.05.
(COMAR 26.09.02.05 A (2))

(3) In the compliance certification report, the CO_2 authorized account representative shall certify whether the source and each CO_2 budget unit at the source for which the compliance certification is submitted was operated during the control period in compliance with the requirements of this subtitle, including:

(a) Whether each CO_2 budget unit at the source was operated in compliance with the CO_2 budget emissions limitation;

(b) Whether the monitoring plan applicable to each unit at the source has been maintained to reflect the actual operation and monitoring of the unit and contains all information necessary to track CO_2 emissions from the unit;

(c) Whether all CO_2 emissions from each unit at the source were monitored or accounted for through the missing data procedures and reported in the quarterly monitoring reports, including:
(i) Whether all conditional data was reported in the quarterly reports; or
(2) If conditional data were reported, whether the status of all conditional data has been resolved and all necessary quarterly report resubmissions have been made;

(d) Whether the basis for certification or for using an excepted monitoring method or approved alternative monitoring method has changed;

(c) If a change is required to be reported, include: the nature and reasons for the change; when the change occurred; and how the unit's compliance status was determined after the change, including the method used to determine emissions when a change mandated the need for monitor recertification.
(COMAR 26.09.02.05A (3) (a)-(c))

(4) The Department, at its discretion, may review and conduct independent audits of any compliance certification or other submission required by this permit.
(COMAR 26.09.02.05 B (1))

(5) The Department may deduct CO_2 allowances from, or transfer CO_2 allowances to, a compliance account to correct errors in the account or to accurately reflect CO_2 emissions, based on the information in the compliance certification or other submissions.
(COMAR 26.09.02.05 B (2))

(6) The owner or operator of a CO_2 budget unit shall:

(a) Install monitoring systems to monitor CO_2 concentration, stack gas flow rate, oxygen concentration, heat input, and fuel flow rate;

(b) Install all monitoring systems in accordance with 40 CFR Part 75, except for equation G-1 in Appendix G (see below); and

$$W_{CO_2} = \frac{\left(MW_C + MW_{O_2}\right) \times W_C}{2,000\, MW_C} \quad (Eq.\ G\text{–}1)$$

Where:

Wco_2=CO_2 emitted from combustion, tons/day.

MWc=Molecular weight of carbon (12.0).

MWo_2=Molecular weight of oxygen (32.0)

Wc= Carbon burned, lb/day, determined using fuel sampling and analysis and fuel feed rates.

(c) Record, report, and verify the data from the monitoring systems.
(COMAR 26.09.02.10A (1) (a)-(c))

(7) Install and certify the monitoring system on or before the following dates:

(a) For a CO_2 budget unit that commences commercial operation before July 1, 2008, the owner or operator shall comply on or before January 1, 2009; and

(b) For a CO_2 budget unit that commences commercial operation or constructs a new stack or flue on or after July 1, 2008, the owner or operator shall comply by January 1, 2009, or 90

operating days after the date on which the unit commences commercial operation.
(COMAR 26.09.02.10 A (1) (d))

(8) The owner or operator of a CO_2 budget unit that does not meet the applicable compliance date shall, in accordance with the provisions in 40 CFR §75.31(b)(2) or (c)(3), or §2.4 of Appendix D, determine, record, and report maximum potential or, as appropriate, minimum potential for the following:

(a) CO_2 concentration;

(b) CO_2 emissions rate;

(c) Stack gas moisture content;

(d) Fuel flow rate; and

(e) Any other parameter required to determine CO_2 mass emissions.
(COMAR 26.09.02.10 A (2) (a)-(e))

(9) The owner or operator of a CO_2 budget unit that does not meet the applicable compliance date for any monitoring system shall determine, record, and report substitute data using the applicable missing data procedures in 40 CFR Part 75 Subpart D, or Appendix D, instead of the maximum potential values or, as appropriate, minimum potential values for a parameter, if the owner or operator demonstrates that there is continuity between the data streams for that parameter before and after the construction or installation.
(COMAR 26.09.02.10 A (3))

(10) An owner or operator of a CO_2 budget unit or a non-CO_2 budget unit monitored under 40 CFR §75.72 (b) (2) (ii) may not:

(a) Use any alternative monitoring system, alternative reference method, or any other alternative for the required continuous emissions monitoring system without having obtained prior written approval from the Department;

(b) Operate the unit so as to discharge, or allow to be discharged, CO_2 emissions to the atmosphere without accounting for all emissions in accordance with the applicable provisions of this chapter and 40 CFR Part 75;

(c) Disrupt the operation of the CEMS, any portion of the CEMS, or any other approved emissions monitoring method, and thereby avoid monitoring and recording CO_2 mass emissions discharged into the atmosphere, except for periods of recertification or periods when calibration, quality assurance testing, or maintenance is performed; or

(e) Permanently discontinue use of the approved CEMS unless the owner or operator monitors emissions with a system approved in accordance with this chapter and 40 CFR Part 75.
(COMAR 26.09.02.10 A (4) (a)-(e))

(11) For purposes of this subtitle only, the owner or operator of a CO_2 budget unit is exempt from demonstrating compliance with the initial certification requirements of 40 CFR §75.20 for a monitoring system if the following conditions are met:

(a) The monitoring system has been previously certified in accordance with 40 CFR §75.20; and

(b) The applicable quality assurance and quality-control requirements of 40 CFR §75.21 and Appendix B and Appendix D of 40 CFR Part 75 are fully met for the certified monitoring system.
(COMAR 26.09.02.10 B (1) (a)-(b))

(12) The recertification provisions of this regulation apply to a monitoring system exempt from the initial certification requirements of this regulation.
(COMAR 26.09.02.10 B (2))

(13) If the Department has previously approved a petition under 40 CFR §75.72(b)(2)(ii) or 40 CFR §75.16(b)(2)(ii)(B) pursuant to 40 CFR §75.13 for apportioning the CO_2 emissions rate measured in a common stack or a petition under 40 CFR §75.66 for an alternative requirement in 40 CFR Part 75, the CO_2 authorized account representative shall resubmit the petition to the Department to determine whether the approval applies under this chapter.
(COMAR 26.09.02.10 B (3))

(14) The owner or operator of a CO_2 budget unit shall comply with the initial certification and recertification procedures for a CEMS and an excepted monitoring system under 40 CFR Part 75, Appendix D.
(COMAR 26.09.02.10 B (4))

(15) The owner or operator of a unit that qualifies to use the low mass emissions excepted monitoring methodology in 40 CFR §75.19 or that qualifies to use an alternative monitoring system under 40 CFR Part 75, Subpart E, shall comply with this regulation.
(COMAR 26.09.02.10 B (5))

(16) When the owner or operator replaces, modifies, or changes a CEMS that the Department determines significantly affects the ability of the system to accurately measure or record CO_2 mass emissions or to meet the quality assurance and quality control requirements of 40 CFR §75.21 or Appendix B, the owner or operator shall recertify the monitoring system according to 40 CFR §75.20(b).
(COMAR 26.09.02.10 C (1))

(17) When the owner or operator replaces, modifies, or changes the flue gas handling system or the unit's operation in a manner that the Department determines has significantly changed the flow or concentration profile, the owner or operator shall recertify the CEMS according to 40 CFR §75.20(b).
(COMAR 26.09.02.10 C (2))

(18) Approval Process for Initial Certifications and Recertification. The procedures in 40 CFR §75.20(b)(5) and (g)(7) apply for recertification. The CO_2 authorized account representative shall submit to the Department:

(a) A written notice of the dates of certification; and

(b) A recertification application for each monitoring system, including the information specified in 40 CFR §75.63.
(COMAR 26.09.02.10 C(3) (a)-(b))

(19) Provisional certification data for a monitor shall be:

(a) Determined in accordance with 40 CFR §75.20(a)(3);

(b) A provisionally certified monitor may be used for a period not to exceed 120 days after receipt of the complete certification application for the monitoring system or component; and

(c) Data measured and recorded by the provisionally certified monitoring system or component is considered valid quality assured data, retroactive to the date and time of provisional certification, if the Department does not issue a notice of disapproval within 120 days of receipt of the complete certification application.
(COMAR 26.09.02.10 C (4) (a)-(c))

(20) The Department shall issue a written notice of approval or disapproval of the certification application to the owner or operator within 120 days of receipt of the complete certification application.
(COMAR 26.09.02.10 D (1))

(21) If the Department does not issue the notice within the 120-day period, each monitoring system that meets the applicable performance requirements of 40 CFR Part 75 and is included in the certification application shall be deemed certified for use.
(COMAR 26.09.02.10 D (2))

(22) If the certification application is complete and shows that each monitoring system meets the applicable performance requirements of 40 CFR Part 75, the Department shall issue a written notice of approval of the certification application within 120 days of receipt.
(COMAR 26.09.02.10 D (3))

(23) If the certification application is not complete, the Department shall issue a written notice of incompleteness that sets a reasonable date by which the CO_2 authorized account representative is to submit the additional information required to complete the certification application.
(COMAR 26.09.02.10 D (4))

(24) If the CO_2 authorized account representative does not comply with the notice of incompleteness by the specified date, the Department may issue a notice of disapproval.
(COMAR 26.09.02.10 D (5))

(25) If the Department issues a notice of disapproval of a certification application or a notice of disapproval of certification status, the owner or operator shall substitute the following values for each disapproved monitoring system, for each hour of unit operation during the period of invalid

data beginning with the date and hour of provisional certification and continuing until the time, date, and hour specified under 40 CFR §75.20(a)(5)(i) or 75.20(g)(7):

(a) For units using or intending to monitor for CO_2 mass emissions using heat input or for units using the low mass emissions excepted methodology under 40 CFR §75.19, the maximum potential hourly heat input of the unit; or

(b) For units intending to monitor for CO_2 mass emissions using a CO_2 pollutant concentration monitor and a flow monitor, the maximum potential concentration of CO_2 and the maximum potential flow rate of the unit under 40 CFR Part 75, Appendix A, §2.1.
(COMAR 26.09.02.10 D (6) (a)-(b))

(26) The CO_2 authorized account representative shall submit a notification of certification retest dates and a new certification application. The owner or operator shall repeat all certification tests or other requirements that were failed by the monitoring system, as indicated in the Department's notice of disapproval, not later than 30 operating days after the date of issuance of the notice of disapproval.
(COMAR 26.09.02.10 D (7))

(27) The owner or operator of a unit qualified to use the low mass emissions excepted methodology under 40 CFR §75.19 shall meet the applicable certification and recertification requirements of 40 CFR §§75.19(a) (2) and 75.20(h).
(COMAR 26.09.02.10 E (1))

(28) If the owner or operator of this unit elects to certify a fuel flow meter system for heat input determinations, the owner or operator shall also meet the certification and recertification requirements in 40 CFR §75.20(g).
(COMAR 26.09.02.10 E (2))

(29) Certification and Recertification Procedures for Alternative Monitoring Systems. For each unit for which the owner or operator intends to use an alternative monitoring system approved by the Department, 40 CFR Part 75, Subpart E, shall be used to comply with the applicable notification and application procedures of 40 CFR §75.20(f).
(COMAR 26.09.02.10 F)

(30) When any monitoring system fails to meet the quality assurance and quality control requirements or data validation requirements of 40 CFR Part 75, data shall be substituted using the applicable procedures in 40 CFR Part 75, Subpart D, Appendix D.
(COMAR 26.09.02.10 G (1))

(31) Audit Decertification.
(a) Whenever both an audit of a monitoring system and a review of the initial certification or recertification application reveal that any monitoring system should not have been certified or recertified because it did not meet a particular performance specification or the applicable provisions of 40 CFR Part 75, both at the time of the initial certification or recertification application submission and at the time of the audit, the Department shall issue a notice of disapproval of the certification status of the monitoring system.

(b) By issuing the notice of disapproval, the certification status of the monitoring system is prospectively revoked.
(COMAR 26.09.02.10 G (2)(a) and (b))

(32) The data measured and recorded by the monitoring system may not be considered valid quality-assured data from the date of issuance of the notification of the revoked certification status.
(COMAR 26.09.02.10 G (3))

(F) Record Keeping and Reporting Requirements

(1) The CO_2 authorized account representative shall comply with all record-keeping and reporting requirements in COMAR 26.09.02.10 and the applicable record-keeping and reporting requirements under 40 CFR §75.73.
(COMAR 26.09.02.11 A)

(2) The CO_2 authorized account representative shall submit quarterly reports as described below in this section.
(COMAR 26.09.02.11 B (1))

(3) The report shall contain the CO_2 mass emissions data for the CO_2 budget unit in an electronic format, unless otherwise required by the Department, for each calendar quarter beginning with:

(a) The calendar quarter covering January 1, 2009 — March 31, 2009, for a unit that commences commercial operation before July 1, 2008; or

(b) For a unit commencing commercial operation on or after July 1, 2008, the calendar quarter corresponding to the earlier of the following dates: date of provisional certification; or applicable deadline for initial certification.
(COMAR 26.09.02.11 B (2) (a)-(b))

(4) The CO_2 authorized account representative shall submit each quarterly report within 30 days following the end of the calendar quarter covered by the report and in accordance with 40 CFR Part 75, Subpart H, §75.64 and 40 CFR Part 75, Subpart G except for the opacity, NO_x and SO_2 provisions.
(COMAR 26.09.02.11 B (4))

(5) The CO_2 authorized account representative shall submit a compliance certification in support of each quarterly report. The certification shall state that:

(a) The monitoring data submitted were recorded in accordance with the applicable requirements of this chapter and 40 CFR Part 75, including the quality assurance procedures and specifications;

(b) For a unit with add-on CO_2 emissions controls and for all hours where data are substituted in accordance with 40 CFR §75.34(a)(1), the add-on emissions controls were operating within the range of parameters listed in the quality assurance and quality control program under 40 CFR Part 75, Appendix B, and the substitute values do not systematically underestimate CO_2 emissions; and

(c) The CO_2 concentration values substituted for missing data under 40 CFR Part 75, Subpart D, do

not systematically underestimate CO_2 emissions.
(COMAR 26.09.02.11 B (5) (a)-(c))

(6) The CO_2 authorized account representative of a CO_2 budget unit may submit a petition to the Department under 40 CFR §75.66 requesting approval to apply an alternative to any requirement of this chapter.
(COMAR 26.09.02.11 C)

(7) The CO_2 authorized account representative or alternate CO_2 authorized account representative of a CO_2 budget unit that burns eligible biomass as a compliance mechanism under this chapter shall report the following information for each calendar quarter:

(a) For each shipment of solid eligible biomass fuel fired at the CO_2 budget unit:

(i) Total eligible biomass fuel input, on an as-fired basis, in pounds; and

(ii) The moisture content, on an as-fired basis, as a fraction of weight;

(b) For each distinct type of gaseous eligible biomass fuel fired at the CO_2 budget unit:
(i) The density of the biogas, on an as-fired basis, in pounds per standard cubic foot; and

(ii) The moisture content of the biogas, as a fraction by total weight;

(c) For each distinct type of eligible biomass fuel fired at the CO_2 budget unit:

(i) The dry basis carbon content of the fuel type, as a fraction by dry weight;

(ii) The dry basis higher heating value, in MMBtu per dry pound;

(iii) The total dry basis eligible biomass fuel input, in pounds;

(iv) The total eligible biomass fuel heat input; and

(v) Chemical analysis, including heat value and carbon content;

(d) The total amount of CO_2 emitted from the CO_2 budget unit due to firing eligible biomass fuel, in tons, calculated as in §D(2)(b) of this regulation;

(e) The total heat input to the CO_2 budget unit due to firing eligible biomass fuel, in MMBtu, calculated below; and

(f) Description and documentation of monitoring technology and fuel sampling methodology employed, including sampling frequency.
(COMAR 26.09.02.11 D (1) (a)-(f))

(8) An owner or operator of a CO_2 budget unit shall calculate and submit on a quarterly basis the total dry weight for each distinct type of eligible biomass fired by the CO_2 budget unit during the reporting

quarter as follows:

(a) For solid eligible biomass fuel, determined as follows:

$$F_j = \sum_{i=1}^{m} (1 - M_i) x F_i$$

where:
(i) F_j = Total eligible biomass dry basis fuel input (pounds) for fuel type j;
(ii) F_i = Eligible biomass as fired fuel input (pounds) for fired shipment i;
(iii) M_i = Moisture content (fraction) for fired shipment i:
(iv) i = fired fuel shipment;
(v) j = fuel type; and
(vi) m = number of shipments.

(b) For gaseous eligible biomass fuel, as determined as follows:

$$F_j = D_j x V_j x (1 - M_j)$$

where:
(i) F_j = Total eligible biomass dry basis fuel input (pounds) for fuel type j;
(ii) D_j = Density of biogas (pounds/scf) for fuel type j;
(iii) Vj = Total volume (scf) for fuel type j;
(iv) Mj = Moisture content (fraction) for fuel type j; and
(v) j = fuel type
(COMAR 26.09.02.11 D (2) (a)-(b))

(9) The amount of CO_2 emissions that is produced from the firing of eligible biomass for any full calendar quarter, during which either no fuel other than eligible biomass is combusted or during which fuels other than eligible biomass are combusted, is determined as follows:

$$CO_2 tons = \sum_{j=1}^{n} F_j x C_j x O_j \left(\frac{44 \left(\frac{g}{molCO_2} \right)}{12 \left(\frac{g}{molC} \right)} \right) (0.0005)$$

where:
(a) CO_2 tons = CO_2 emissions due to firing of eligible biomass for the reporting quarter;
(b) F_j = Total eligible biomass dry basis fuel input (pounds) for fuel type j, as calculated in §D(2)(a) of this regulation;
(c) C_j = Carbon fraction (dry basis) for fuel type j;
(d) Oj = Oxidation factor for eligible biomass fuel type j, derived for solid fuels based on the ash content of the eligible biomass fired and the carbon content of this ash or for gaseous eligible biomass fuels, a default oxidation factor of 0.995 may be used;

(e) $\frac{44\left(\frac{g}{molCO_2}\right)}{12\left(\frac{g}{molC}\right)}$

= The number of tons of carbon dioxide that are created when one ton of carbon is combusted;

(f) 0.0005 = The number of short tons which is equal to one pound;

(g) j = Fuel type; and

(h) n = number of distinct fuel types.

(COMAR 26.09.02.11 D (3))

(10) Heat input due to firing of eligible biomass for each quarter shall be determined as follows:

(a) For each distinct fuel type:

$$H_j = F_j x HHV_j$$

where:

(i) H_j = Heat input (MMBtu) for fuel type j;

(ii) F_j = Total eligible biomass dry basis fuel input (pounds) for fuel type j;

(iii) HHV_j = Higher heating value (MMBtu/pound), dry basis, for fuel type j, as determined through chemical analysis;

(iv) j = Fuel type.

(b) For all fuel types:

$$HeatInputMMBtu = \sum_{j=1}^{n} H_j$$

where:

(i) H_j = Heat input (MMBtu) for fuel type j;

(ii) j = fuel type; and

(iii) n = number of distinct fuel types.

Fuel sampling methods and fuel sampling technology shall be consistent with the New York State Renewable Portfolio Standard Biomass Guidebook, May 2006.

(COMAR 26.09.02.11D(4) & D(5))

(11) A CO_2 budget unit shall submit to the Department the megawatt-hour value and a statement certifying that the megawatt-hour of electrical output reported reflects the total actual electrical output for all CO_2 budget units at the facility used by the independent system operator (ISO) to determine settlement resources of energy market participants.

(COMAR 26.09.02.11 E (1))

(12) A CO_2 budget unit shall report gross hourly megawatts to the Department in the same electronic data report

(EDR) for gross output as submitted to the EPA Administrator, for the operating time in the hour, added for all hours in a year.

(COMAR 26.09.02.11 E (2))

(13) A CO_2 budget unit shall submit the net electrical output to the Department in accordance with this regulation. A CO_2 budget source whose electrical output is not used in the independent system operator (ISO) energy market settlement determinations shall propose a method for quantification of net electrical output.

(COMAR 26.09.02.11 E (3))

(14) Report of net Steam Output.

(a) CO_2 budget sources selling steam shall use billing meters to determine net steam output or an alternative method to measure net steam output approved by the Department.

(b) If data for steam output is not available, the CO_2 budget source may report heat input, substituting useful steam output for steam output.

(COMAR 26.09.02.11 E (4) (a)-(b))

(15) Each CO_2 budget source shall submit an output monitoring plan with a description and diagram that include the following:

(a) If the CO_2 budget unit monitors net electric output, the diagram shall contain all CO_2 budget units and all generators served by each CO_2 budget unit and the relationship between CO_2 budget units and generators;

(b) If a generator served by a CO_2 budget unit is also served by a nonaffected unit, the nonaffected unit and its relationship to each generator shall be indicated on the diagram;

(c) The diagram shall indicate where the net electric output is measured and include all electrical inputs and outputs to and from the plant;

(d) If net electric output is determined using a billing meter, the diagram shall show each billing meter used to determine net sales of electricity and show that all electricity measured at the point of sale is generated by the CO_2 budget units;

(e) If the CO_2 budget unit monitors net thermal output, the diagram shall indicate all steam or hot water coming into the net steam system, including steam from CO_2 budget units and nonaffected units, and all exit points of steam or hot water from the net steam system;

(f) Each input and output stream shall have an estimated temperature, pressure and phase indicator, and an enthalpy in Btu per pound;

(g) The diagram of the net steam system shall identify all useful loads, house loads, parasitic loads, any other steam loads, and all boiler feedwater returns;

(h) The diagram shall represent all energy losses in the system as either usable or unusable losses;

(i) The diagram shall indicate all flow meters, temperature or pressure sensors, or other equipment used to calculate gross thermal output; and

(j) If a sales agreement is used to determine net thermal output, the diagram shall show the monitoring equipment used to determine the sales of steam.
(COMAR 26.09.02.11 F (2) (a)-(j))

(16) The description of the output monitoring system shall include:

(a) A written description of the output system and the equations used to calculate output, and, for net thermal output systems, descriptions and justifications of each useful load;

(b) A detailed description of all quality assurance and quality control activities that will be performed to maintain the output system; and

(c) Documentation supporting any output value to be used as a missing data value if there are periods of invalid output data.

(d) The missing data output value shall be either zero or an output value that is likely to be lower than a measured value and approved as part of the required monitoring plan.
(COMAR 26.09.02.11 F (3) (a)-(b))

(17) A certification statement shall be submitted by the CO_2 authorized account representative stating that either:

(a) The output monitoring system consists entirely of billing meters; or

(b) The output monitoring system meets one of the accuracy requirements for nonbilling meters.
(COMAR 26.09.02.11 G (1) (a)-(b))

(18) The billing meter shall record the electric or thermal output. Any electric or thermal output values reported shall be the same as the values used in billing for the output.
(COMAR 26.09.02.11 G (2))

(19) For nonbilling meters, either the output monitoring system shall meet an accuracy of within 10 percent of the reference value, or each component monitor for the output system shall meet an accuracy of within 3 percent of the full scale value, whichever is less stringent.
(COMAR 26.09.02.11 G (3))

(20) The system approach to accuracy shall include:

(a) A determination of how the system accuracy of 10 percent is achieved using the individual components in the system; and

(b) Data loggers and any wattmeters used to calculate the final net electric output data or any flowmeters for steam or condensate, temperature measurement devices, absolute pressure measurement devices,

and differential pressure devices used for measuring thermal energy.
(COMAR 26.09.02.11 G (4) (a)-(b))

(21) If, upon testing a piece of output measurement equipment, it is determined that the output readings are not accurate to within 3 percent of the full scale value, then the equipment shall be repaired or replaced to meet that requirement.
(COMAR 26.09.02.11 G (5))

(22) Data is invalid until the output measurement equipment passes an accuracy test or is replaced with another piece of equipment that passes the accuracy test.
(COMAR 26.09.02.11 G (6))

(23) Ongoing quality assurance and quality control activities shall be performed in order to maintain the output system.
(COMAR 26.09.02.11 H (1))

(24) If billing meters are used to determine output, quality assurance and quality control activities are not required beyond what are already performed.
(COMAR 26.09.02.11 H (2))

(25) Certain types of equipment such as potential transformers, current transformers, nozzle and venture type meters, and the primary element of an orifice plate only require an initial certification of calibration and do not require periodic recalibration unless the equipment is physically changed.

(a) Pressure and temperature transmitters accompanying an orifice plate will require periodic retesting.

(b) For other types of equipment, the meter accuracy shall be recalibrated or verified at least once every 2 years, unless a consensus standard allows for less frequent calibrations or accuracy tests.

(c) For nonbilling meters, either the output monitoring system shall meet an accuracy of within 10 percent of the reference value, or each component monitor for the output system shall meet an accuracy of within 3 percent of the full scale value, whichever is less stringent.

(d) If, upon testing a piece of output measurement equipment, it is determined that the output readings are not accurate to within 3 percent of the full scale value, then the equipment shall be repaired or replaced to meet that requirement.
(COMAR 26.09.02.11 H (3) (a)-(e))

(26) Out-of-Control Periods.

(a) If, upon testing a piece of output measurement equipment, it is determined that the output readings are not accurate to the certification value, data is invalid until the output measurement equipment passes an accuracy test or is replaced with another piece of equipment that passes the accuracy test.

(b) All invalid data shall be replaced by either zero or an output value that is likely to be lower than a measured value and that is approved as part of the required monitoring plan.
(COMAR 26.09.02.11 H (4) (a)-(b))

(27) The CO_2 authorized account representative shall submit annual output reports, as follows:

(a) Data shall be sent both electronically and in hardcopy by March 1 for the immediately preceding calendar year; and
(COMAR 26.09.02.11 I (1))

(28) The annual report shall include unit level megawatt hours, all useful steam output, and a certification statement from the CO_2 authorized account representative stating the following, "I am authorized to make this submission on behalf of the owners and operators of the CO_2 budget sources or CO_2 budget 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."
(COMAR 26.09.02.11 I (2))

(G) CO_2 Emission Offset Projects

(1) In order to qualify for the award of CO_2 offset allowances, the following offset projects shall satisfy all applicable requirements identified in COMAR 26.09.03 and initially commence on or after December 20, 2005:

(a) Landfill methane capture and destruction;

(b) Reduction in emissions of sulfur hexafluoride (SF_6);

(c) Sequestration of carbon due to afforestation;

(d) Reduction or avoidance of CO_2 emissions from natural gas, oil, or propane end-use combustion due to end-use energy efficiency; and

(e) Avoided methane emissions from agricultural manure management operations.
(COMAR 26.09.03.02 A (1)-(5))

4. Permit Application (See Attachment)

Maryland Department of the Environment
Air and Radiation Management Administration

PHASE II ACID RAIN PERMIT

Plant Name:	Herbert A. Wagner	
Affected Units:	Units 1, 2, 3, and 4	
Owners:	Raven Power Fort Smallwood LLC	ORIS Code 1554
Effective Date From:	January 1, 2017 To: September 30, 2022	

Contents:

---

1. Statement of Basis

Statutory and Regulatory Authorities: In accordance with Environmental Article§2-401, Annotated Code of Maryland and Titles IV and V of the Clean Air Act, the Maryland Department of the Environment, Air and Radiation Management Administration issues this permit pursuant to COMAR 26.11.02 and COMAR 26.11.03.

Renewal Permit Approval

George S. Aburn, Jr., Director
Air and Radiation Management Administration

1/1/17
Date of Issue

Plant Name: Herbert A. Wagner

2. SO_2 and NO_x Requirements for each affected unit

Units No. 1, 2, 3, and 4

SO_2 Requirements	
SO_2 Allowances	Raven Power Fort Smallwood LLC will hold allowances for each unit in accordance with 40 CFR 72.9(c)(1).

NO_X Requirements					
NO_X Limit- lbs/mmBTU	Year				
	2016	2017	2018	2019	2020
Unit No. 2	0.46	0.46	0.46	0.46	0.46
Unit No. 3	0.68	0.68	0.68	0.68	0.68

3. Comments, notes and justifications regarding decisions, and changes made to the permit application forms during the review process:

1. The SO_2 allowances allocated by the United States Environmental Protection Agency (U S EPA) to the units are listed in Table 2 of 40 CFR Part 73. However, the number of allowances actually held by an affected source's account may differ from the number allocated by the U.S. EPA.

2. Unit No. 2 is subject to the standard NO_X emission rate for dry bottom wall-fired coal boilers. Unit 3 is subject to the standard NO_X emissions rate for cell burner coal boilers.

Renewal Permit Approval

George S. Aburn, Jr , Director
Air and Radiation Management Administration

1/1/17
Date of Issue

Maryland Department of the Environment
Air and Radiation Management Administration

CO_2 BUDGET TRADING PROGRAM PERMIT

Plant Name: Herbert A Wagner	
Affected Trading Units: 000001; 000002; 000003; & 000004	
Owner: Raven Power Fort Smallwood LLC	**ORIS Code** 001554
Effective Date From: January 1, 2017 To: September 30, 2022	

Contents:

1. Statement of Basis

Statutory and Regulatory Authorities: In accordance with Environmental Article §2-401, Annotated Code of Maryland, the Maryland Department of the Environment, Air and Radiation Management Administration issues this permit pursuant to COMAR 26.09.01 thru COMAR 26.09.04.

Initial Permit Approval

for George S. Aburn, Jr., Director
Air and Radiation Management Administration

1/1/17
Date of Issue

2. Affected Units

Unit ID #	ARMA ID #	Unit Description
000001	4-0307	145 MWe (approx) dual fuel fired boiler-natural gas primary/No 6 FO back-up
000002	4-0308	145 MWe (approx) coal-fired boiler
000003	4-0003	350 MWe (approx) coal-fired boiler
000004	4-0017	420 MWe (approx) No 6 fuel oil fired boiler

3. Standard Requirements:

(A) Selection and Responsibilities of CO_2 Budget Source Compliance Account Authorized Account Representatives.

(1) Each CO_2 budget source shall have a CO_2 authorized account representative and an alternate CO_2 authorized account representative.
(COMAR 26.09.01.04B)

(2) Upon receipt of a complete account certificate of representation:

(a) The CO_2 authorized account representative and alternate CO_2 authorized account representative shall represent and, by representations, actions, inactions, or submissions, legally bind each owner or operator of the CO_2 budget source represented and each CO_2 budget unit at the source in all matters pertaining to this subtitle, notwithstanding any agreement between the CO_2 authorized account representative, alternate CO_2 authorized account representative, and the owners or operators;
(COMAR 26.09.01.04E (1))

(b) The owners or operators shall be bound by any decision or order issued to the CO_2 authorized account representative or alternate CO_2 authorized account representative by the Department or a court regarding the CO_2 budget source or unit.
(COMAR 26.09.01.04E (2))

(3) A CO_2 budget permit may not be issued or a compliance account established for a CO_2 budget source until the Department has received a complete account certificate of representation for a CO_2 authorized account representative and alternate CO_2 authorized account representative of the source and the CO_2 budget units at the source.
(COMAR 26.09.01.04F)

(4) Each submission shall be signed and certified by the CO_2 authorized account representative or alternate CO_2 authorized account representative on behalf of each CO_2 budget source and shall include the following statement by the CO_2 authorized account representative or alternate CO_2 authorized account representative: "I am authorized to make the submission on behalf of the owners or operators of the CO_2 budget sources or CO_2 budget 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 the 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."
(COMAR 26.09.01.04G)

(B) Distribution Of CO_2 Allowances And Compliance

(1) Unless otherwise specified in this chapter, a CO_2 budget source shall demonstrate compliance with its CO_2 budget emissions limitation by having one CO_2 allowance in its compliance account for every ton of CO_2 that it emits in a control period, by the allowance transfer deadline for that control period.
(COMAR 26.09.02.03E(1))

(2) The following CO_2 allowances may be deducted from a compliance account for purposes of complying with a budget source's CO_2 budget emissions limitation for a certain control period

(a) CO_2 allowances that are not CO_2 offset allowances and are identified as allowances falling within a prior control period or the same control period for which the allowances are deducted;

(b) CO_2 allowances that are held or transferred into the CO_2 budget source's compliance account as of the CO_2 allowance transfer deadline for that control period;

(c) CO_2 offset allowances that are available to be deducted for compliance during a control period may not exceed the following:

(i) 3.3 percent;

(ii) 5 percent, if the Department determines that there has been a Stage 1 trigger event; and

(iii) 10 percent, if the Department determines that there has been a Stage 2 trigger event.
(COMAR 26.09.02.03E(2)(a)-(c))

(3) The Department shall deduct CO_2 allowances from the CO_2 budget source's compliance account until the number of CO_2 allowances deducted equals the number of tons of total CO_2 emissions, less any CO_2 emissions attributable to the burning of eligible biomass.
(COMAR 26.09.02.03E (3))

(4) The identification of available CO_2 allowances for compliance deduction by serial number or by default is as follows:

(a) The CO_2 authorized account representative for a source's compliance account may request that specific CO_2 allowances, identified by serial number for a control period, be deducted; and

(b) In the absence of an identification or in the case of a partial identification of available CO_2 allowances by serial number, the Department shall deduct CO_2 allowances for a control period in the following descending order:

(i) For the first control period, all CO_2 allowances purchased by direct sale from the Department during years 2009, 2010, and 2011 resulting from the occurrence of the $7 auction clearing price;

(ii) All CO_2 allowances for a control period allocated to a CO_2 budget unit from the Long Term Contract Set-aside Account or the Clean Generation Set-aside Account;

(iii) Subject to the relevant compliance deduction limitations identified in §E(2)(c) of this regulation, any CO_2 offset allowances transferred and recorded in the compliance account, in chronological order; and

(iv) Any CO_2 allowances, other than those identified in §E(4)(b)(i) — (iii) of this regulation, that are available for deduction in the order they were recorded.

(COMAR 26.09.02.03E (4)(a)-(b))

(5) Deductions for Excess Emissions:

(a) If a CO_2 budget source has excess emissions, the Department shall deduct, from the CO_2 budget source's compliance account, CO_2 allowances from allocation years that occur after the control period in which the source has excess emissions that equal three times the number of the source's excess emissions.

(b) If a source has insufficient CO_2 allowances to cover three times the number of the source's excess emissions, the source shall immediately transfer sufficient allowances into its compliance account.

(c) CO_2 offset allowances may not be deducted to account for the source's excess emissions.

(d) Any CO_2 allowance deduction does not affect the liability of the owners or operators of the CO_2 budget units at the source for any fine, penalty, or assessment, or their obligation to comply with any other remedy, for the same violation, as ordered under applicable State law.
(COMAR 26.09.02.03E (5)(a)-(d))

(6) The following guidelines apply in assessing fines, penalties, or other obligations:

(a) For purposes of determining the number of days of violation, if a CO_2 budget unit has excess emissions for a control period, each day in the control period constitutes a day of violation unless the owners or operators of the unit can demonstrate to the satisfaction of the Department that a lesser number of days should be considered; and

(b) The Department shall consider the amount of excess emissions in determining the severity of the violation.
(COMAR 26.09.02.03E (6)(a)-(b))

(7) If the CO_2 budget source's compliance account no longer exists, the CO_2 allowances shall be deposited in a general account selected by the owner or operator of the CO2 budget source.
(COMAR 26.09.02.03E (7))

(8) Adjustments and Errors:

(a) The Department may review and conduct independent audits concerning any submission under this subtitle and make appropriate adjustments of the information, if necessary.

(b) The Department may correct any error in any account and, within 10 business days of making any correction, notify the CO_2 authorized account representative for the account
(COMAR 26.09.02.03E (8)(a)-(b))

(C) Applicability and Administration

(1) The requirements of this permit apply to the owner or operator of a CO_2 budget unit. When this permit establishes a requirement such as the submittal of a permit application, a report, a request for

allowances or transfer of allowances, or general information, these actions shall be achieved through the authorized account representative on behalf of the owner or operator of the affected CO_2 budget source or unit.
(COMAR 26.09.02.02A)

(2) The requirements of this subtitle are effective on January 1, 2009 or, for new CO_2 budget units, on the day on which the unit commences operation.
(COMAR 26.09.02.02C).

(3) The provisions of this permit do not exempt or otherwise relieve the owners or operators of a CO_2 budget source from achieving compliance with any other provision of applicable State and federal laws and regulations.
(COMAR 26.09.02.02D).

(4) Unless otherwise stated under this subtitle, any time period scheduled to begin:

(a) On the occurrence of an act or event, begins on the day the act or event occurs; and

(b) Before the occurrence of an act or event, is computed so that the period ends the day before the act or event occurs.
(COMAR 26.09.02.02F)

(5) Unless otherwise stated, if the final day of any time period for performing an act required by this subtitle falls on a weekend or on a State or federal holiday, the time period is extended until or to the next business day.
(COMAR 26.09.02.02G)

(D) Permit Requirements

(1) The account representative or designate alternate account representative) of each affected unit at a source, (every fossil fuel fired unit with a nameplate capacity of 25 MW or greater) for that source shall comply with the following:

(a) The CO_2 authorized account representative for the source shall submit an initial CO_2 budget permit application by October 1, 2008, or 12 months before the date on which the CO_2 budget source, or a new unit at the source, commences operation.
(COMAR 26.09.02.04A (2));

(b) The CO_2 budget permit application shall include the following in a format prescribed by the Department: 1) the identification of the CO_2 budget source; 2) facility name and the ORIS (Office of Regulatory Information Systems) or facility code assigned to the source by the Energy Information Administration of the U. S. Department of Energy, if applicable; 3) each CO_2 budget unit at the source; and 4) other information required by the Department.
(COMAR 26.09.02.04A (3))

(c) The authorized account representative for the source shall submit a complete application for the renewal of an existing CO_2 budget permit on forms provided by the Department not later than 90 days before the expiration of the current CO_2 budget permit.
(COMAR 26.09.02.04 E)

(2) The owners and operators of each affected source shall have a CO_2 Budget Trading Program

permit (the "budget permit") issued by the Department.
(COMAR 26.09.02.04A (1)).

(3) The CO_2 budget permit issued by the Department shall be separate but attached to the budget source's Part 70 permit.
(COMAR 26.09.02.04B)

(4) A CO_2 budget permit expires 5 years from the date of issuance by the Department, unless an earlier expiration date is specified in the permit.
(COMAR 26.09.02.04D)

(E) Monitoring, Initial Certification and Recertification Requirements

(1) For each control period in which a CO_2 budget source is subject to the CO_2 budget emissions limitation, the CO_2 authorized account representative of the source shall submit a compliance certification report by the March 1 following the relevant control period.
(COMAR 26.09.02.05 A (1))

(2) The CO_2 authorized account representative shall include in the compliance certification report the following:

(a) Identification of the source and each CO_2 budget unit at the source;

(b) At the CO_2 authorized account representative's option, the serial numbers of the CO_2 allowances that are to be deducted from the source's compliance account for the control period, including the serial numbers of any CO_2 offset allowances that are to be deducted subject to applicable limitations; and

(c) The compliance certification required by Condition (d)(3) of this permit.
(COMAR 26.09.02.05 A (2))

(3) In the compliance certification report, the CO_2 authorized account representative shall certify whether the source and each CO_2 budget unit at the source for which the compliance certification is submitted was operated during the control period in compliance with the requirements of this subtitle, including:

(a) Whether each CO_2 budget unit at the source was operated in compliance with the CO_2 budget emissions limitation;

(b) Whether the monitoring plan applicable to each unit at the source has been maintained to reflect the actual operation and monitoring of the unit and contains all information necessary to track CO_2 emissions from the unit;

(c) Whether all CO_2 emissions from each unit at the source were monitored or accounted for through the missing data procedures and reported in the quarterly monitoring reports, including: identification of all conditional data reported in the quarterly reports; and if conditional data were reported, whether the status of all conditional data has been resolved

and all necessary quarterly report resubmissions have been made;

(d) Whether the basis for certification or for using an excepted monitoring method or approved alternative monitoring method has changed;

(e) If a change is required to be reported, include: the nature and reasons for the change; when the change occurred; and how the unit's compliance status was determined after the change, including the method used to determine emissions when a change mandated the need for monitor recertification.
(COMAR 26.09.02.05Λ (3) (a)-(e))

(4) The Department, at its discretion, may review and conduct independent audits of any compliance certification or other submission required by this permit.
(COMAR 26.09.02.05 B (1))

(5) The Department may deduct CO_2 allowances from, or transfer CO_2 allowances to, a compliance account to correct errors in the account or to accurately reflect CO_2 emissions, based on the information in the compliance certification or other submissions.
(COMAR 26.09.02.05 B (2))

(6) The owner or operator of a CO_2 budget unit shall:

(a) Install monitoring systems to monitor CO_2 concentration, stack gas flow rate, oxygen concentration, heat input, and fuel flow rate;

(b) Install all monitoring systems in accordance with 40 CFR Part 75, except for equation G-1 in Appendix G (attached at the end of this permit); and

(c) Record, report, and verify the data from the monitoring systems.
(COMAR 26.09.02.10A (1) (a)-(c))

(7) Install and certify the monitoring system on or before the following dates:

(a) For a CO_2 budget unit that commences commercial operation before July 1, 2008, the owner or operator shall comply on or before January 1, 2009; and

(b) For a CO_2 budget unit that commences commercial operation or constructs a new stack or flue on or after July 1, 2008, the owner or operator shall comply by January 1, 2009, or 90 operating days after the date on which the unit commences commercial operation.
(COMAR 26.09.02.10 A (1) (d))

(8) The owner or operator of a CO_2 budget unit that does not meet the applicable compliance date shall, in accordance with the provisions in 40 CFR §75.31(b)(2) or (c)(3), or §2.4 of Appendix D, determine, record, and report maximum potential or, as appropriate, minimum potential for the following:

(a) CO_2 concentration;

(b) CO_2 emissions rate;

(c) Stack gas moisture content;

(d) Fuel flow rate; and

(e) Any other parameter required to determine CO_2 mass emissions.
(COMAR 26.09.02.10 A (2) (a)-(e))

(9) The owner or operator of a CO_2 budget unit that does not meet the applicable compliance date for any monitoring system shall determine, record, and report substitute data using the applicable missing data procedures in 40 CFR Part 75 Subpart D, or Appendix D, instead of the maximum potential values or, as appropriate, minimum potential values for a parameter, if the owner or operator demonstrates that there is continuity between the data streams for that parameter before and after the construction or installation.
(COMAR 26.09.02.10 A (3))

(10) An owner or operator of a CO_2 budget unit or a non-CO_2 budget unit monitored under 40 CFR §75.72 (b) (2) (ii) may not:

(a) Use any alternative monitoring system, alternative reference method, or any other alternative for the required continuous emissions monitoring system without having obtained prior written approval from the Department;

(b) Operate the unit so as to discharge, or allow to be discharged, CO_2 emissions to the atmosphere without accounting for all emissions in accordance with the applicable provisions of this chapter and 40 CFR Part 75;

(c) Disrupt the operation of the CEMS, any portion of the CEMS, or any other approved emissions monitoring method, and thereby avoid monitoring and recording CO_2 mass emissions discharged into the atmosphere, except for periods of recertification or periods when calibration, quality assurance testing, or maintenance is performed; or

(e) Permanently discontinue use of the approved CEMS unless the owner or operator monitors emissions with a system approved in accordance with this chapter and 40 CFR Part 75.
(COMAR 26.09.02.10 A (4) (a)-(e))

(11) For purposes of this subtitle only, the owner or operator of a CO_2 budget unit is exempt from demonstrating compliance with the initial certification requirements of 40 CFR §75.20 for a monitoring system if the following conditions are met:

(a) The monitoring system has been previously certified in accordance with 40 CFR §75.20; and

(b) The applicable quality assurance and quality-control requirements of 40 CFR §75.21 and Appendix B and Appendix D of 40 CFR Part 75 are fully met for the certified monitoring system.

(COMAR 26.09.02.10 B (1) (a)-(b))

(12) The recertification provisions of this regulation apply to a monitoring system exempt from the initial certification requirements of this regulation.
(COMAR 26.09.02.10 B (2))

(13) If the Department has previously approved a petition under 40 CFR §75.72(b)(2)(ii) or 40 CFR §75.16(b)(2)(ii)(B) pursuant to 40 CFR §75.13 for apportioning the CO_2 emissions rate measured in a common stack or a petition under 40 CFR §75.66 for an alternative requirement in 40 CFR Part 75, the CO_2 authorized account representative shall resubmit the petition to the Department to determine whether the approval applies under this chapter.
(COMAR 26.09.02.10 B (3))

(14) The owner or operator of a CO_2 budget unit shall comply with the initial certification and recertification procedures for a CEMS and an excepted monitoring system under 40 CFR Part 75, Appendix D.
(COMAR 26.09.02.10 B (4))

(15) The owner or operator of a unit that qualifies to use the low mass emissions excepted monitoring methodology in 40 CFR §75.19 or that qualifies to use an alternative monitoring system under 40 CFR Part 75, Subpart E, shall comply with this regulation.
(COMAR 26.09.02.10 B (5))

(16) When the owner or operator replaces, modifies, or changes a CEMS that the Department determines significantly affects the ability of the system to accurately measure or record CO_2 mass emissions or to meet the quality assurance and quality control requirements of 40 CFR §75.21 or Appendix B, the owner or operator shall recertify the monitoring system according to 40 CFR §75.20(b).
(COMAR 26.09.02.10 C (1))

(17) When the owner or operator replaces, modifies, or changes the flue gas handling system or the unit's operation in a manner that the Department determines has significantly changed the flow or concentration profile, the owner or operator shall recertify the CEMS according to 40 CFR §75.20(b).
(COMAR 26.09.02.10 C (2))

(18) Approval Process for Initial Certifications and Recertification. The procedures in 40 CFR §75.20(b)(5) and (g)(7) apply for recertification. The CO_2 authorized account representative shall submit to the Department:

(a) A written notice of the dates of certification; and

(b) A recertification application for each monitoring system, including the information specified in 40 CFR §75.63.
(COMAR 26.09.02.10 C(3) (a)-(b))

(19) Provisional certification data for a monitor shall be:

(a) Determined in accordance with 40 CFR §75.20(a)(3);

(b) A provisionally certified monitor may be used for a period not to exceed 120 days after receipt of the complete certification application for the monitoring system or component; and

(c) Data measured and recorded by the provisionally certified monitoring system or component is considered valid quality assured data, retroactive to the date and time of provisional certification, if the Department does not issue a notice of disapproval within 120 days of receipt of the complete certification application.
(COMAR 26.09.02.10 C (4) (a)-(c))

(20) The Department shall issue a written notice of approval or disapproval of the certification application to the owner or operator within 120 days of receipt of the complete certification application.
(COMAR 26.09.02.10 D (1))

(21) If the Department does not issue the notice within the 120-day period, each monitoring system that meets the applicable performance requirements of 40 CFR Part 75 and is included in the certification application shall be deemed certified for use.
(COMAR 26.09.02.10 D (2))

(22) If the certification application is complete and shows that each monitoring system meets the applicable performance requirements of 40 CFR Part 75, the Department shall issue a written notice of approval of the certification application within 120 days of receipt.
(COMAR 26.09.02.10 D (3))

(23) If the certification application is not complete, the Department shall issue a written notice of incompleteness that sets a reasonable date by which the CO_2 authorized account representative is to submit the additional information required to complete the certification application.
(COMAR 26.09.02.10 D (4))

(24) If the CO_2 authorized account representative does not comply with the notice of incompleteness by the specified date, the Department may issue a notice of disapproval.
(COMAR 26.09.02.10 D (5))

(25) If the Department issues a notice of disapproval of a certification application or a notice of disapproval of certification status, the owner or operator shall substitute the following values for each disapproved monitoring system, for each hour of unit operation during the period of invalid data beginning with the date and hour of provisional certification and continuing until the time, date, and hour specified under 40 CFR §75.20(a)(5)(i) or 75.20(g)(7):

(a) For units using or intending to monitor for CO_2 mass emissions using heat input or for units using the low mass emissions excepted methodology under 40 CFR §75.19, the maximum potential hourly heat input of the unit; or

(b) For units intending to monitor for CO_2 mass emissions using a CO_2 pollutant concentration monitor and a flow monitor, the maximum potential concentration of CO_2 and the maximum

potential flow rate of the unit under 40 CFR Part 75, Appendix A, §2.1.
(COMAR 26.09.02.10 D (6) (a)-(b))

(26) The CO_2 authorized account representative shall submit a notification of certification retest dates and a new certification application. The owner or operator shall repeat all certification tests or other requirements that were failed by the monitoring system, as indicated in the Department's notice of disapproval, not later than 30 operating days after the date of issuance of the notice of disapproval.
(COMAR 26.09.02.10 D (7))

(27) The owner or operator of a unit qualified to use the low mass emissions excepted methodology under 40 CFR §75.19 shall meet the applicable certification and recertification requirements of 40 CFR §§75.19(a) (2) and 75.20(h).
(COMAR 26.09.02.10 E (1))

(28) If the owner or operator of this unit elects to certify a fuel flow meter system for heat input determinations, the owner or operator shall also meet the certification and recertification requirements in 40 CFR §75.20(g).
(COMAR 26.09.02.10 E (2))

(29) Certification and Recertification Procedures for Alternative Monitoring Systems. For each unit for which the owner or operator intends to use an alternative monitoring system approved by the Department, 40 CFR Part 75, Subpart E, shall be used to comply with the applicable notification and application procedures of 40 CFR §75.20(f).
(COMAR 26.09.02.10 F)

(30) When any monitoring system fails to meet the quality assurance and quality control requirements or data validation requirements of 40 CFR Part 75, data shall be substituted using the applicable procedures in 40 CFR Part 75, Subpart D, Appendix D.
(COMAR 26.09.02.10 G (1))

(31) Whenever both an audit of a monitoring system and a review of the initial certification or recertification application reveal that any monitoring system should not have been certified or recertified because it did not meet a particular performance specification or the applicable provisions of 40 CFR Part 75, both at the time of the initial certification or recertification application submission and at the time of the audit, the Department shall issue a notice of disapproval of the certification status of the monitoring system. By issuing the notice of disapproval, the certification status of the monitoring system is prospectively revoked.
(COMAR 26.09.02.10 G (2))

(32) The data measured and recorded by the monitoring system may not be considered valid quality-assured data from the date of issuance of the notification of the revoked certification status.
(COMAR 26.09.02.10 G (3))

(F) Record Keeping and Reporting Requirements

(1) The CO_2 authorized account representative shall comply with all record-keeping and reporting

requirements in COMAR 26.09.02.10 and the applicable record-keeping and reporting requirements under 40 CFR §75.73.
(COMAR 26.09.02.11 A)

(2) The CO_2 authorized account representative shall submit quarterly reports as described below in this section.
(COMAR 26.09.02.11 B (1))

(3) The report shall contain the CO_2 mass emissions data for the CO_2 budget unit in an electronic format, unless otherwise required by the Department, for each calendar quarter beginning with:

(a) The calendar quarter covering January 1, 2009 — March 31, 2009, for a unit that commences commercial operation before July 1, 2008; or

(b) For a unit commencing commercial operation on or after July 1, 2008, the calendar quarter corresponding to the earlier of the following dates: date of provisional certification; or applicable deadline for initial certification.

(c) If the quarter is the third or fourth quarter of 2008, reporting shall commence in the quarter covering January 1, 2009 through March 31, 2009.
(COMAR 26.09.02.11 B (2) (a)-(c))

(4) The CO_2 authorized account representative shall submit each quarterly report within 30 days following the end of the calendar quarter covered by the report and in accordance with 40 CFR Part 75, Subpart H, §75.64 and 40 CFR Part 75, Subpart G except for the opacity, NO_x and SO_2 provisions.
(COMAR 26.09.02.11 B (3))

(5) The CO_2 authorized account representative shall submit a compliance certification in support of each quarterly report. The certification shall state that:

(a) The monitoring data submitted were recorded in accordance with the applicable requirements of this chapter and 40 CFR Part 75, including the quality assurance procedures and specifications;

(b) For a unit with add-on CO_2 emissions controls and for all hours where data are substituted in accordance with 40 CFR §75.34(a)(1), the add-on emissions controls were operating within the range of parameters listed in the quality assurance and quality control program under 40 CFR Part 75, Appendix B, and the substitute values do not systematically underestimate CO_2 emissions; and

(c) The CO_2 concentration values substituted for missing data under 40 CFR Part 75, Subpart D, do not systematically underestimate CO_2 emissions.
(COMAR 26.09.02.11 B (4) (a)-(c))

(6) The CO_2 authorized account representative of a CO_2 budget unit may submit a petition to the Department under 40 CFR §75.66 requesting approval to apply an alternative to any requirement of this chapter.
(COMAR 26.09.02.11 C)

(7) The CO_2 authorized account representative or alternate CO_2 authorized account representative of a CO_2 budget unit that burns eligible biomass as a compliance mechanism under this chapter shall report the following information for each calendar quarter:

(a) For each shipment of solid eligible biomass fuel fired at the CO_2 budget unit:

(i) Total eligible biomass fuel input, on an as-fired basis, in pounds; and

(ii) The moisture content, on an as-fired basis, as a fraction of weight;

(b) For each distinct type of gaseous eligible biomass fuel fired at the CO_2 budget unit:
(i) The density of the biogas, on an as-fired basis, in pounds per standard cubic foot; and

(ii) The moisture content of the biogas, as a fraction by total weight;

(c) For each distinct type of eligible biomass fuel fired at the CO_2 budget unit:

(i) The dry basis carbon content of the fuel type, as a fraction by dry weight;

(ii) The dry basis higher heating value, in MMBtu per dry pound;

(iii) The total dry basis eligible biomass fuel input, in pounds;

(iv) The total eligible biomass fuel heat input; and

(v) Chemical analysis, including heat value and carbon content;

(d) The total amount of CO_2 emitted from the CO_2 budget unit due to firing eligible biomass fuel, in tons, calculated as in §D(2)(b) of this regulation;

(e) The total heat input to the CO_2 budget unit due to firing eligible biomass fuel, in MMBtu, calculated below; and

(f) Description and documentation of monitoring technology and fuel sampling methodology employed, including sampling frequency.
(COMAR 26.09.02.11 D (1) (a)-(f))

(8) An owner or operator of a CO_2 budget unit shall calculate and submit on a quarterly basis the total dry weight for each distinct type of eligible biomass fired by the CO_2 budget unit during the reporting quarter:

(a) For solid eligible biomass fuel, determined as follows:

$$F_j = \sum_{i=1}^{m} (1 - M_i) x F_i$$

where:
(i) F_j = Total eligible biomass dry basis fuel input (pounds) for fuel type j;

(ii) F_i = Eligible biomass as fired fuel input (pounds) for fired shipment i;
(iii) M_i = Moisture content (fraction) for fired shipment i:
(iv) i = fired fuel shipment;
(v) j = fuel type; and
(vi) m = number of shipments.

(b) For gaseous eligible biomass fuel, as determined as follows:

$$F_j = D_j x V_j x (1 - M_j)$$

where:
(i) F_j = Total eligible biomass dry basis fuel input (pounds) for fuel type j;
(ii) D_j = Density of biogas (pounds/scf) for fuel type j;
(iii) Vj = Total volume (scf) for fuel type j;
(iv) Mj = Moisture content (fraction) for fuel type j; and
(v) j = fuel type
(COMAR 26.09.02.11 D (2) (a)-(c))

(9) The amount of CO_2 emissions that is produced from the firing of eligible biomass for any full calendar quarter, during which either no fuel other than eligible biomass is combusted or during which fuels other than eligible biomass are combusted, is determined as follows:

$$CO_2 tons = \sum_{j=1}^{n} F_j x C_j x O_j \left(\frac{44\left(\frac{g}{molCO_2}\right)}{12\left(\frac{g}{molC}\right)} \right) (0.0005)$$

where:
(a) CO_2 tons = CO_2 emissions due to firing of eligible biomass for the reporting quarter;
(b) F_j = Total eligible biomass dry basis fuel input (pounds) for fuel type j, as calculated in §D(2)(a) of this regulation;
(c) C_j = Carbon fraction (dry basis) for fuel type j;
(d) Oj = Oxidation factor for eligible biomass fuel type j, derived for solid fuels based on the ash content of the eligible biomass fired and the carbon content of this ash or for gaseous eligible biomass fuels, a default oxidation factor of 0.995 may be used;

(e) $\frac{44\left(\frac{g}{molCO_2}\right)}{12\left(\frac{g}{molC}\right)}$
= The number of tons of carbon dioxide that are created when one ton of carbon is combusted;
(f) 0.0005 = The number of short tons which is equal to one pound;
(g) j = Fuel type; and

(h) n = number of distinct fuel types.
(COMAR 26.09.02.11 D (3))

(10) Heat input due to firing of eligible biomass for each quarter shall be determined as follows:

(a) For each distinct fuel type:

$$H_j = F_j x HHV_j$$

where:

(i) H_j = Heat input (MMBtu) for fuel type j;
(ii) F_j = Total eligible biomass dry basis fuel input (pounds) for fuel type j;
(iii) HHV_j = Higher heating value (MMBtu/pound), dry basis, for fuel type j, as determined through chemical analysis;
(iv) j = Fuel type.

(b) For all fuel types:

$$HeatInputMMBtu = \sum_{j=1}^{n} H_j$$

where:

(i) H_j = Heat input (MMBtu) for fuel type j;
(ii) j = fuel type; and
(iii) n = number of distinct fuel types.

Fuel sampling methods and fuel sampling technology shall be consistent with the New York State Renewable Portfolio Standard Biomass Guidebook, May 2006.
(COMAR 26.09.02.11D(4) & D(5))

(11) A CO_2 budget unit shall submit to the Department the megawatt-hour value and a statement certifying that the megawatt-hour of electrical output reported reflects the total actual electrical output for all CO_2 budget units at the facility used by the independent system operator (ISO) to determine settlement resources of energy market participants.
(COMAR 26.09.02.11 E (1))

(12) A CO_2 budget unit shall report gross hourly megawatts to the Department in the same electronic data report (EDR) for gross output as submitted to the EPA Administrator, for the operating time in the hour, added for all hours in a year.
(COMAR 26.09.02.11 E (2))

(13) A CO_2 budget unit shall submit the net electrical output to the Department in accordance with this regulation. A CO_2 budget source whose electrical output is not used in the independent system operator (ISO) energy market settlement determinations shall propose a method for quantification of net electrical output.
(COMAR 26.09.02.11 E (3))

(14) For reporting of net steam output a CO_2 budget source:

(a) Selling steam shall use billing meters to determine net steam output or an alternative method to measure net steam output approved by the Department.

(b) If data for steam output is not available, the CO_2 budget source may report heat input, substituting useful steam output for steam output.
(COMAR 26.09.02.11 E (4) (a)-(b))

(15) Each CO_2 budget source shall submit an output monitoring plan with a description and diagram that include the following:

(a) If the CO_2 budget unit monitors net electric output, the diagram shall contain all CO_2 budget units and all generators served by each CO_2 budget unit and the relationship between CO_2 budget units and generators;

(b) If a generator served by a CO_2 budget unit is also served by a nonaffected unit, the nonaffected unit and its relationship to each generator shall be indicated on the diagram;

(c) The diagram shall indicate where the net electric output is measured and include all electrical inputs and outputs to and from the plant;

(d) If net electric output is determined using a billing meter, the diagram shall show each billing meter used to determine net sales of electricity and show that all electricity measured at the point of sale is generated by the CO_2 budget units;

(e) If the CO_2 budget unit monitors net thermal output, the diagram shall indicate all steam or hot water coming into the net steam system, including steam from CO_2 budget units and nonaffected units, and all exit points of steam or hot water from the net steam system;

(f) Each input and output stream shall have an estimated temperature, pressure and phase indicator, and an enthalpy in Btu per pound;

(g) The diagram of the net steam system shall identify all useful loads, house loads, parasitic loads, any other steam loads, and all boiler feedwater returns;

(h) The diagram shall represent all energy losses in the system as either usable or unusable losses;

(i) The diagram shall indicate all flow meters, temperature or pressure sensors, or other equipment used to calculate gross thermal output; and

(j) If a sales agreement is used to determine net thermal output, the diagram shall show the monitoring equipment used to determine the sales of steam.
(COMAR 26.09.02.11 F (2) (a)-(j))

(16) The description of the output monitoring system shall include:

(a) A written description of the output system and the equations used to calculate output, and, for net thermal output systems, descriptions and justifications of each useful load;

(b) A detailed description of all quality assurance and quality control activities that will be performed to maintain the output system; and

(c) Documentation supporting any output value to be used as a missing data value if there are periods of invalid output data.

(d) The missing data output value shall be either zero or an output value that is likely to be lower than a measured value and approved as part of the required monitoring plan.
(COMAR 26.09.02.11 F (3) (a)-(b))

(17) A certification statement shall be submitted by the CO_2 authorized account representative stating that either:

(a) The output monitoring system consists entirely of billing meters; or

(b) The output monitoring system meets one of the accuracy requirements for nonbilling meters.
(COMAR 26.09.02.11 G (1) (a)-(b))

(18) The billing meter shall record the electric or thermal output. Any electric or thermal output values reported shall be the same as the values used in billing for the output.
(COMAR 26.09.02.11 G (2))

(19) For nonbilling meters, either the output monitoring system shall meet an accuracy of within 10 percent of the reference value, or each component monitor for the output system shall meet an accuracy of within 3 percent of the full scale value, whichever is less stringent.
(COMAR 26.09.02.11 G (3))

(20) The system approach to accuracy shall include:

(a) A determination of how the system accuracy of 10 percent is achieved using the individual components in the system; and

(b) Data loggers and any wattmeters used to calculate the final net electric output data or any flowmeters for steam or condensate, temperature measurement devices, absolute pressure measurement devices, and differential pressure devices used for measuring thermal energy.
(COMAR 26.09.02.11 G (4) (a)-(b))

(21) If, upon testing a piece of output measurement equipment, it is determined that the output readings are not accurate to within 3 percent of the full scale value, then the equipment shall be repaired or replaced to meet that requirement.
(COMAR 26.09.02.11 G (5))

(22) Data is invalid until the output measurement equipment passes an accuracy test or is replaced with another piece of equipment that passes the accuracy test.
(COMAR 26.09.02.11 G (6))

(23) Ongoing quality assurance and quality control activities shall be performed in order to maintain the output system.
(COMAR 26.09.02.11 H (1))

(24) If billing meters are used to determine output, quality assurance and quality control activities are not required beyond what are already performed.
(COMAR 26.09.02.11 H (2))

(25) Certain types of equipment such as potential transformers, current transformers, nozzle and venture type meters, and the primary element of an orifice plate only require an initial certification of calibration and do not require periodic recalibration unless the equipment is physically changed.

(a) Pressure and temperature transmitters accompanying an orifice plate will require periodic retesting.

(b) For other types of equipment, the meter accuracy shall be recalibrated or verified at least once every 2 years, unless a consensus standard allows for less frequent calibrations or accuracy tests.

(c) For nonbilling meters, either the output monitoring system shall meet an accuracy of within 10 percent of the reference value, or each component monitor for the output system shall meet an accuracy of within 3 percent of the full scale value, whichever is less stringent.

(d) If, upon testing a piece of output measurement equipment, it is determined that the output readings are not accurate to within 3 percent of the full scale value, then the equipment shall be repaired or replaced to meet that requirement.
(COMAR 26.09.02.11 H (3) (a)-(e))

(26) If, upon testing a piece of output measurement equipment, it is determined that the output readings are not accurate to the certification value, data is invalid until the output measurement equipment passes an accuracy test or is replaced with another piece of equipment that passes the accuracy test.

(a) All invalid data shall be replaced by either zero or an output value that is likely to be lower than a measured value and that is approved as part of the required monitoring plan.
(COMAR 26.09.02.11 H (4) (a)-(b))

(27) The CO_2 authorized account representative shall submit annual output reports, as follows:

(a) Data shall be sent both electronically and in hardcopy by March 1 for the immediately preceding calendar year; and
(COMAR 26.09.02.11 I (1))

(28) The annual report shall include unit level megawatt hours, all useful steam output, and a certification statement from the CO_2 authorized account representative stating the following, "I am authorized to make this submission on behalf of the owners and operators of the CO_2 budget sources or CO_2 budget 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."

(COMAR 26.09.02.11 I (2))

(G) CO_2 Emission Offset Projects

(1) In order to qualify for the award of CO_2 offset allowances, the following offset projects shall satisfy all applicable requirements identified in COMAR 26.09.03 and initially commence on or after December 20, 2005:

(a) Landfill methane capture and destruction;

(b) Reduction in emissions of sulfur hexafluoride (SF_6);

(c) Sequestration of carbon due to afforestation;

(d) Reduction or avoidance of CO_2 emissions from natural gas, oil, or propane end-use combustion due to end-use energy efficiency; and

(e) Avoided methane emissions from agricultural manure management operations.
(COMAR 26.09.03.01 A (a)-(e))

4. Permit Application (See Attachment)

RAVEN POWER FORT SMALLWOOD LLC
BRANDON SHORES AND WAGNER GENERATING STATIONS
1005 BRANDON SHORES ROAD, BALTIMORE MD 21226
PART 70 OPERATING PERMIT NO. 24-003-0468

SECTION I SOURCE IDENTIFICATION

1. DESCRIPTION OF FACILITY

The Fort Smallwood Complex consists of Brandon Shores and Wagner generating stations. The two (2) generating stations are co-located on a 456-acre site. Emissions from both generating stations are aggregated for permitting purposes and thus the entire complex operates under one Title V permit. The SIC code of Fort Smallwood is 4911.

The Fort Smallwood Complex is located in northern Anne Arundel County, on the Patapsco River, of Fort Smallwood Road. The Complex is comprised of two generating stations and a warehouse.

The primary emission units at Brandon Shores are two (2) coal-fired generating units with a combined nominal generating capacity of approximately 1,370 megawatts (MW). Each unit has a rated capacity of 7,128 million British thermal units per hour (MMBtu/hr). Unit #1 (MDE Registration #3-0015) was placed in commercial service in 1984, and Unit #2 (MDE Registration #3-0016) was placed in commercial service in 1991. Both units are Babcock and Wilcox (B&W) solid fossil fuel-fired (coal), dry bottom boilers with circular wall burners. No. 2 fuel oil is used for start-up and main burner ignition. Coal is transferred to the plant storage bunker via conveyor belts, after which the coal is pulverized and blown into the furnace. Unit #1 is equipped with overfire air and low nitrogen oxide (NO_X) burners. Unit #2 is equipped with low NO_X burners and BOOS (burners out of service). Currently for each unit, the flue gas is passed though hot-side electrostatic precipitators (ESPs) and selective catalytic reduction (SCR) to reduce NO_X emissions. The gas is then treated with a dry sorbent injection system for the control of sulfuric acid mist and powdered activated carbon (PAC) injection system for the control of mercury (Hg), and passed through fabric filter baghouses to collect the particulate matter (PM) emissions, followed by a flue gas desulfurization (FGD) system for the removal of sulfur dioxide (SO_2). Ash is collected from the ESP hoppers and conveyed pneumatically to storage silos from where it is loaded into trucks for final disposition. Both units are equipped with continuous emissions monitoring systems (CEMS) for NO_X, SO_2, carbon dioxide (CO_2), Hg and PM. Brandon also has two (2) No. 2 fuel oil-fired auxiliary boilers (MDE Registrations #4-0507 and #4-0508) each rated at 145 MMBtu/hr used for supplying steam to Brandon Shores, and two (2) 500 horsepower (hp) emergency diesel fired internal combustion quench pumps (MDE Registration #9-0988) used to provide water to the FGD equipment in the case of emergencies. Brandon Shores also has material handling operations for coal and fly ash (MDE Registration #6-1143), as well as for limestone and gypsum (MDE Registrations #6-1149 and #6-1150) that includes the transfer of material using conveyors and storage in large outdoor piles. Fugitive emissions of PM

from these operations are controlled through the use of enclosures, and/or wet suppression. Raven also operates a 670 HP emergency generator at Brandon Shores, which was installed in 1979, that is used to supply electricity during emergency situations.

The primary emission units at Wagner are four (4) steam-electric generating units with a combined nominal rating of approximately 1,040 MW. Unit #1 (MDE Registration #5-0489) is a natural gas-fired (No. 6 fuel-oil backup) B&W dry bottom wall-fired boiler, which began operation in 1956. Unit #1 is rated at 1,337 MMBtu/hr and is controlled by a cold-side ESP. Unit #1 is equipped with a CEMS for NO_X and CO_2 and COMS for opacity. Unit #2 (MDE Registration #3-0017) is a B&W dry bottom wall-fired (coal)-fired natural circulation steam boiler equipped with low NO_X burners, which began operation in 1959. Unit #2 is also rated at 1,337 MMBtu/hr and is controlled using a PAC injection system for Hg control, a cold-side ESP for PM control, and selective non-catalytic reduction (SNCR) for NO_X control. Unit #2 is equipped with CEMS for NO_X, CO_2, SO_2 and Hg and COMS for opacity. Unit #3 (MDE Registration #3-0003) is a B&W coal-fired, once-through supercritical steam boiler, which began operation in 1966. Unit #3 is rated at 2,740 MMBtu/hr and is controlled by an SCR for NOX control, PAC injection for Hg control, and a cold-side ESP for PM control. Unit #3 is equipped with CEMS for NO_X, CO_2, SO_2 and Hg and COMS for opacity. Unit #4 (MDE Registration #4-0017) is a B&W dry bottom wall-fired No. 6 fuel oil-fired steam boiler, which began operation in 1972. Unit #4 is rated at 4,200 MMBtu/hr and is controlled by a multiple cyclone for the control of PM. Unit #4 is equipped with CEMS for NO_X, SO_2, and CO_2 and COMS for opacity. All four units use natural gas for startup and main burner ignition. Ash from the coal boilers is collected from the ESP hoppers and conveyed pneumatically to storage silos from where it is loaded into trucks for final disposition. Wagner also has a No. 2 oil-fired combustion turbine (MDE Registration #4-0007) used to supply "black-start" capability and for peaking operation. In addition, material handling operations of coal and ash (MDE Registration #6-1144) are performed at Wagner, which generate fugitive emissions of PM. These handling operations include the transfer of material using conveyors, the crushing of coal, and storage in large outdoor piles. Fugitive emissions of PM from these operations are controlled through the use of enclosures and/or wet suppression. A CPCN (Case #9338) was also issued on July 30, 2014 that permits the construction of hydrated lime handling facilities at Wagner, related to the addition of a dry sorbent injection system on Wagner Units 2 and 3. These facilities which will consist of processes for the receiving and handling of sorbent, and the storage of sorbent in up to four (4) silos. In addition, the CPCN issued on July 30, 2014 authorized the combustion of bituminous coal, sub-bituminous coal, or any blend of bituminous and sub-bituminous coal at Wagner Units 2 and 3.

2. FACILITY INVENTORY LIST

Emissions Unit Number	MDE Registration Number	Emissions Unit Name and Description	Date of Installation
FSC-BS-Unit 1	3-0015	Brandon Shores Unit 1 is a solid fossil fuel fired generating unit with No.2 oil used for start-up purposes. The Unit is also capable of re-burning high carbon fly ash with the solid fuel/coal that has been recovered from the fly ash separation equipment on site.	05/1984
FSC-BS-Unit 2	3-0016	Brandon Shores Unit 2 is a solid fossil fuel fired generating unit with No.2 oil used for start-up purposes. The Unit is also capable of re-burning high carbon fly ash with the solid fuel/coal that has been recovered from the fly ash separation equipment on site.	05/1991
FSC-BS-AuxBlr1	4-0507	#1 Auxiliary Boiler: Zurn (Model 18M Keystone) is a No. 2 oil fired boiler used for supplying steam to Brandon Shores Station.	05/1973
FSC-BS-AuxBlr2	4-0508	#2 Auxiliary Boiler: Zurn (Model 18M Keystone) is a No. 2 oil fired boiler used for supplying steam to Brandon Shores Station.	05/1973
FSC-BS-QP	9-0988	The Quench Pumps are two (2) 500 HP diesel-fired internal combustion engines that are used to supply water to the flue gas desulfurization (FGD) system in case of emergencies	12/2009
FSC-BS-EG	N/A	The emergency generator is a 670 HP diesel-fired internal combustion engine installed at the facility to provide back-up power.	1979
FSC-BS-MH	6-1143	The Brandon Shores material handling system consists of various equipment and processes to transport coal, fly ash, hydrated lime or equivalent, powdered activated carbon and other materials. There are facilities to mix coal with additives to reduce stack emissions. Equipment and processes may include	05/1973

Emissions Unit Number	MDE Registration Number	Emissions Unit Name and Description	Date of Installation
		unloading scoops, transfer point, storage piles, silos, bin vents, and other material handling equipment.	
FSC-BS-LSH	6-1149	The Brandon Shores limestone handling system consists of various equipment and processes to handle limestone. Equipment and processes may include unloading scoops, transfer point, storage piles, silos, bin vents, and other material handling equipment.	12/2009
FSC-BS-GH	6-1150	The Brandon Shores gypsum handling system consists of various equipment and processes to handle gypsum. Equipment and processes may include unloading scoops, transfer point, storage piles, silos, bin vents, and other material handling equipment.	12/2009
FSC-HAW-Unit1	5-0489	H.A. Wagner Unit 1 is a No. 6 oil or natural gas fired unit (nominally rated at 133 MW**)**	02/1956
FSC-HAW-Unit2	3-0017	H.A. Wagner Unit 2 is a coal fired unit with natural gas used for start-up (nominally rated at 136 MW).	01/1959
FSC-HAW-Unit3	3-0003	H.A. Wagner Unit 3 is a coal fired unit with natural gas used for start-up (nominally rated at 359 MW).	08/1966
FSC-HAW-Unit4	4-0017	H.A. Wagner Unit 4 is a No. 6 oil fired unit with natural gas fired used for start-up (nominally rated at 415 MW).	08/1972
FSC-HAW-CT	4-0007	H.A. Wagner combustion turbine is a No. 2 oil fired combustion turbine used to supply “black start” capability to H.A. Wagner and for peaking operation.	08/1967
FSC-HAW-MH	6-1144	The H.A. Wagner material handling system consists of various equipment and processes to transport coal, fly ash, hydrated lime or equivalent, powdered activated carbon and other materials. There are facilities to mix coal with additives to reduce stack emissions. Equipment and processes may include unloading scoops, transfer point, storage piles, silos, bin vents, and other material handling equipment.	05/1956

SECTION II GENERAL CONDITIONS

1. DEFINITIONS

[COMAR 26.11.01.01] and [COMAR 26.11.02.01]

The words or terms in this Part 70 permit shall have the meanings established under COMAR 26.11.01 and .02 unless otherwise stated in this permit.

2. ACRONYMS

ARMA	Air and Radiation Management Administration
BACT	Best Available Control Technology
Btu	British thermal unit
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEM	Continuous Emissions Monitor
CFR	Code of Federal Regulations
CO	Carbon Monoxide
COMAR	Code of Maryland Regulations
EPA	United States Environmental Protection Agency
FR	Federal Register
gr	grains
HAP	Hazardous Air Pollutant
MACT	Maximum Achievable Control Technology
MDE	Maryland Department of the Environment
MVAC	Motor Vehicle Air Conditioner
NESHAPS	National Emission Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards
NSR	New Source Review
OTR	Ozone Transport Region
PM	Particulate Matter
PM10	Particulate Matter with Nominal Aerodynamic Diameter of 10 micrometers or less
ppm	parts per million
ppb	parts per billion
PSD	Prevention of Significant Deterioration
PTC	Permit to construct
PTO	Permit to operate (State)
SIC	Standard Industrial Classification
SO_2	Sulfur Dioxide

TAP	Toxic Air Pollutant
tpy	tons per year
VE	Visible Emissions
VOC	Volatile Organic Compounds

3. EFFECTIVE DATE

The effective date of the conditions in this Part 70 permit is the date of permit issuance, unless otherwise stated in the permit.

4. PERMIT EXPIRATION

[COMAR 26.11.03.13B(2)]

Upon expiration of this permit, the terms of the permit will automatically continue to remain in effect until a new Part 70 permit is issued for this facility provided that the Permittee has submitted a timely and complete application and has paid applicable fees under COMAR 26.11.02.16.

Otherwise, upon expiration of this permit the right of the Permittee to operate this facility is terminated.

5. PERMIT RENEWAL

[COMAR 26.11.03.02B(3)] and [COMAR 26.11.03.02E]

The Permittee shall submit to the Department a completed application for renewal of this Part 70 permit at least 12 months before the expiration of the permit. Upon submitting a completed application, the Permittee may continue to operate this facility pending final action by the Department on the renewal.

The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall submit such supplementary facts or corrected information no later than 10 days after becoming aware that this occurred. The Permittee shall also provide additional information as necessary to address any requirements that become applicable to the facility after the date a completed application was submitted, but prior to the release of a draft permit. This information shall be submitted to the Department no later than 20 days after a new requirement has been adopted.

6. CONFIDENTIAL INFORMATION

[COMAR 26.11.02.02G]

In accordance with the provisions of the State Government Article, Sec. 10-611 et seq., Annotated Code of Maryland, all information submitted in an application shall be considered part of the public record and available for inspection and copying, unless the Permittee claims that the information is confidential when it is submitted to the Department. At the time of the request for inspection or copying, the Department will make a determination with regard to the confidentiality of the information. The Permittee, when requesting confidentiality, shall identify the information in a manner specified by the Department and, when requested by the Department, promptly provide specific reasons supporting the claim of confidentiality. Information submitted to the Department without a request that the information be deemed confidential may be made available to the public. Subject to approval of the Department, the Permittee may provide a summary of confidential information that is suitable for public review. The content of this Part 70 permit is not subject to confidential treatment.

7. PERMIT ACTIONS

[COMAR 26.11.03.06E(3)] and [COMAR 26.11.03.20(A)]

This Part 70 permit may be revoked or reopened and revised for cause. The filing of an application by the Permittee for a permit revision or renewal; or a notification of termination, planned changes or anticipated noncompliance by the facility, does not stay a term or condition of this permit.

The Department shall reopen and revise, or revoke the Permittee's Part 70 permit under the following circumstances:

a. Additional requirements of the Clean Air Act become applicable to this facility and the remaining permit term is 3 years or more;

b. The Department or the EPA determines that this Part 70 permit contains a material mistake, or is based on false or inaccurate information supplied by or on behalf of the Permittee;

c. The Department or the EPA determines that this Part 70 permit must be revised or revoked to assure compliance with applicable requirements of the Clean Air Act; or

d. Additional requirements become applicable to an affected source under the Federal Acid Rain Program.

8. PERMIT AVAILABILITY

[COMAR 26.11.02.13G]

The Permittee shall maintain this Part 70 permit in the vicinity of the facility for which it was issued, unless it is not practical to do so, and make this permit immediately available to officials of the Department upon request.

9. REOPENING THE PART 70 PERMIT FOR CAUSE BY THE EPA

[COMAR 26.11.03.20B]

The EPA may terminate, modify, or revoke and reissue a permit for cause as prescribed in 40 CFR §70.7(g)

10. TRANSFER OF PERMIT

[COMAR 26.11.02.02E]

The Permittee shall not transfer this Part 70 permit except as provided in COMAR 26.11.03.15.

11. REVISION OF PART 70 PERMITS – GENERAL CONDITIONS

[COMAR 26.11.03.14] and [COMAR 26.11.03.06A(8)]

a. The Permittee shall submit an application to the Department to revise this Part 70 permit when required under COMAR 26.11.03.15 -.17.

b. When applying for a revision to a Part 70 permit, the Permittee shall comply with the requirements of COMAR 26.11.03.02 and .03 except that the application for a revision need include only information listed that is related to the proposed change to the source and revision to the permit. This information shall be sufficient to evaluate the proposed change and to determine whether it will comply with all applicable requirements of the Clean Air Act.

c. The Permittee may not change any provision of a compliance plan or schedule in a Part 70 permit as an administrative permit amendment or as a minor permit modification unless the change has been approved by the Department in writing.

d. A permit revision is not required for a change that is provided for in this permit relating to approved economic incentives, marketable permits, emissions trading, and other similar programs.

12. SIGNIFICANT PART 70 OPERATING PERMIT MODIFICATIONS

[COMAR 26.11.03.17]

The Permittee may apply to the Department to make a significant modification to its Part 70 Permit as provided in COMAR 26.11.03.17 and in accordance with the following conditions:

a. A significant modification is a revision to the federally enforceable provisions in the permit that does not qualify as an administrative permit amendment under COMAR 26.11.03.15 or a minor permit modification as defined under COMAR 26.11.03.16.

b. This permit does not preclude the Permittee from making changes, consistent with the provisions of COMAR 26.11.03, that would make the permit or particular terms and conditions of the permit irrelevant, such as by shutting down or reducing the level of operation of a source or of an emissions unit within the source. Air pollution control equipment shall not be shut down or its level of operation reduced if doing so would violate any term of this permit.

c. Significant permit modifications are subject to all requirements of COMAR 26.11.03 as they apply to permit issuance and renewal, including the requirements for applications, public participation, and review by affected states and EPA, except:

(1) An application need include only information pertaining to the proposed change to the source and modification of this permit, including a description of the change and modification, and any new applicable requirements of the Clean Air Act that will apply if the change occurs;

(2) Public participation, and review by affected states and EPA, is limited to only the application and those federally enforceable terms and conditions of the Part 70 permit that are affected by the significant permit modification.

d. As provided in COMAR 26.11.03.15B(5), an administrative permit amendment may be used to make a change that would otherwise require a significant permit modification if procedures for enhanced preconstruction review of the change are followed that satisfy the requirements of 40 CFR 70.7(d)(1)(v).

e. Before making a change that qualifies as a significant permit modification, the Permittee shall obtain all permits-to-construct and approvals required by COMAR 26.11.02.

f. The Permittee shall not make a significant permit modification that results in a violation of any applicable requirement of the Clean Air Act.

g. The permit shield in COMAR 26.11.03.23 applies to a final significant permit modification that has been issued by the Department, to the extent applicable under COMAR 26.11.03.23.

13. MINOR PERMIT MODIFICATIONS

[COMAR 26.11.03.16]

The Permittee may apply to the Department to make a minor modification to the federally enforceable provisions of this Part 70 permit as provided in COMAR 26.11.03.16 and in accordance with the following conditions:

a. A minor permit modification is a Part 70 permit revision that:

(1) Does not result in a violation of any applicable requirement of the Clean Air Act;

(2) Does not significantly revise existing federally enforceable monitoring, including test methods, reporting, record keeping, or compliance certification requirements except by:

(a) Adding new requirements,

(b) Eliminating the requirements if they are rendered meaningless because the emissions to which the requirements apply will no longer occur, or

(c) Changing from one approved test method for a pollutant and source category to another;

(3) Does not require or modify a:

(a) Case-by-case determination of a federally enforceable emissions standard,

(b) Source specific determination for temporary sources of ambient impacts, or

(c) Visibility or increment analysis;

(4) Does not seek to establish or modify a federally enforceable permit term or condition for which there is no corresponding underlying applicable requirement of the Clean Air Act, but that the Permittee has assumed to avoid an applicable requirement to which the source would otherwise be subject, including:

(a) A federally enforceable emissions standard applied to the source pursuant to COMAR 26.11.02.03 to avoid classification as a Title I modification; and

(b) An alternative emissions standard applied to an emissions unit pursuant to regulations promulgated under Section 112(i)(5) of the Clean Air Act

(5) Is not a Title I modification; and

(6) Is not required under COMAR 26.11.03.17 to be processed as a significant modification to this Part 70 permit.

b. Application for a Minor Permit Modification

The Permittee shall submit to the Department an application for a minor permit modification that satisfies the requirements of COMAR 26.11.03.03 which includes the following:

(1) A description of the proposed change, the emissions resulting from the change, and any new applicable requirements that will apply if the change is made;

(2) The proposed minor permit modification;

(3) Certification by a responsible official, in accordance with COMAR 26.11.02.02F, that:

(a) The proposed change meets the criteria for a minor permit modification, and

(b) The Permittee has obtained or applied for all required permits-to-construct required by COMAR 26.11.03.16 with respect to the proposed change;

(4) Completed forms for the Department to use to notify the EPA and affected states, as required by COMAR 26.11.03.07-.12.

c. Permittee's Ability to Make Change

(1) For changes proposed as minor permit modifications to this permit that will require the applicant to obtain a permit to construct, the permit to construct must be issued prior to the new change.

(2) During the period of time after the Permittee applies for a minor modification but before the Department acts in accordance with COMAR 26.11.03.16F(2):

(a) The Permittee shall comply with applicable requirements of the Clean Air Act related to the change and the permit terms and conditions described in the application for the minor modification.

(b) The Permittee is not required to comply with the terms and conditions in the permit it seeks to modify. If the Permittee fails to comply with the terms and conditions in the application during this time, the terms and conditions of both this permit and the application for modification may be enforced against it.

d. The Permittee is subject to enforcement action if it is determined at any time that a change made under COMAR 26.11.03.16 is not within the scope of this regulation.

e. Minor permit modification procedures may be used for Part 70 permit modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, but only to the extent that the minor permit modification procedures are explicitly provided for in regulations approved by the EPA as part of the Maryland SIP or in other applicable requirements of the Clean Air Act.

14. ADMINISTRATIVE PART 70 OPERATING PERMIT AMENDMENTS

[COMAR 26.11.03.15]

The Permittee may apply to the department to make an administrative permit amendment as provided in COMAR 26.11.03.15 and in accordance with the following conditions:

a. An application for an administrative permit amendment shall:

(1) Be in writing;

(2) Include a statement certified by a responsible official that the proposed amendment meets the criteria in COMAR 26.11.03.15 for an administrative permit amendment, and

(3) Identify those provisions of this part 70 permit for which the amendment is requested, including the basis for the request.

b. An administrative permit amendment:

(1) Is a correction of a typographical error;

(2) Identifies a change in the name, address, or phone number of a person identified in this permit, or a similar administrative change involving the Permittee or other matters which are not directly related to the control of air pollution;

(3) requires more frequent monitoring or reporting by the Permittee;

(4) Allows for a change in ownership or operational control of a source for which the Department determines that no other revision to the permit is necessary and is documented as per COMAR 26.11.03.15B(4);

(5) Incorporates into this permit the requirements from preconstruction review permits or approvals issued by the Department in accordance with COMAR 26.11.03.15B(5), but only if it satisfies 40 CFR 70.7(d)(1)(v);

(6) Incorporates any other type of change, as approved by the EPA, which is similar to those in COMAR 26.11.03.15B(1)—(4);

(7) Notwithstanding COMAR 26.11.03.15B(1)—(6), all modifications to acid rain control provisions included in this Part 70 permit are governed by applicable requirements promulgated under Title IV of the Clean Air Act; or

(8) Incorporates any change to a term or condition specified as State-only enforceable, if the Permittee has obtained all necessary permits-to-construct and approvals that apply to the change.

c. The Permittee may make the change addressed in the application for an administrative amendment upon receipt by the Department of the application, if all permits-to-construct or approvals otherwise required by COMAR 26.11.02 prior to making the change have first been obtained from the Department.

d. The permit shield in COMAR 26.11.03.23 applies to administrative permit amendments made under Section B(5) of COMAR 26.11.03.15 , but only after the Department takes final action to revise the permit.

e. The Permittee is subject to enforcement action if it is determined at any time that a change made under COMAR 26.11.03.15 is not within the scope of this regulation.

15. OFF-PERMIT CHANGES TO THIS SOURCE

[COMAR 26.11.03.19]

The Permittee may make off-permit changes to this facility as provided in COMAR 26.11.03.19 and in accordance with the following conditions:

a. The Permittee may make a change to this permitted facility that is not addressed or prohibited by the federally enforceable conditions of this Part 70 permit without obtaining a Part 70 permit revision if:

(1) The Permittee has obtained all permits and approvals required by COMAR 26.11.02 and .03;

(2) The change is not subject to any requirements under Title IV of the Clean Air Act;

(3) The change is not a Title I modification; and

(4) The change does not violate an applicable requirement of the Clean Air Act or a federally enforceable term or condition of the permit.

b. For a change that qualifies under COMAR 26.11.03.19, the Permittee shall provide contemporaneous written notice to the Department and the EPA, except for a change to an emissions unit or activity that is exempt from the Part 70 permit application, as provided in COMAR 26.11.03.04. This written notice shall describe the change, including the date it was made, any change in emissions, including the pollutants emitted, and any new applicable requirements of the Clean Air Act that apply as a result of the change.

c. Upon satisfying the requirements of COMAR 26.11.03.19, the Permittee may make the proposed change.

d. The Permittee shall keep a record describing:

(1) Changes made at the facility that result in emissions of a regulated air pollutant subject to an applicable requirement of the Clean Air Act , but not otherwise regulated under this permit; and

(2) The emissions resulting from those changes.

e. Changes that qualify under COMAR 26.11.03.19 are not subject to the requirements for Part 70 revisions.

f. The Permittee shall include each off-permit change under COMAR 26.11.03.19 in the application for renewal of the part 70 permit.

g. The permit shield in COMAR 26.11.03.23 does not apply to off-permit changes made under COMAR 26.11.03.19.

h. The Permittee is subject to enforcement action if it is determined that an off-permit change made under COMAR 26.11.03.19 is not within the scope of this regulation.

16. ON-PERMIT CHANGES TO SOURCES

[COMAR 26.11.03.18]

The Permittee may make on-permit changes that are allowed under Section 502(b)(10) of the Clean Air Act as provided in COMAR 26.11.03.18 and in accordance with the following conditions:

a. The Permittee may make a change to this facility without obtaining a revision to this Part 70 permit if:

(1) The change is not a Title I modification;

(2) The change does not result in emissions in excess of those expressly allowed under the federally enforceable provisions of the Part 70 permit for the permitted facility or for an emissions unit within the facility, whether expressed as a rate of emissions or in terms of total emissions;

(3) The Permittee has obtained all permits and approvals required by COMAR 26.11.02 and .03;

(4) The change does not violate an applicable requirement of the Clean Air Act;

(5) The change does not violate a federally enforceable permit term or condition related to monitoring, including test methods, record keeping, reporting, or compliance certification requirements;

(6) The change does not violate a federally enforceable permit term or condition limiting hours of operation, work practices, fuel usage, raw material usage, or production levels if the term or condition has been established to limit emissions allowable under this permit;

(7) If applicable, the change does not modify a federally enforceable provision of a compliance plan or schedule in this Part 70 permit unless the Department has approved the change in writing; and

(8) This permit does not expressly prohibit the change under COMAR 26.11.03.18.

b. The Permittee shall notify the Department and the EPA in writing of a proposed on-permit change under COMAR 26.11.03.18 not later than 7 days before the change is made. The written information shall include the following information:

(1) A description of the proposed change;

(2) The date on which the change is proposed to be made;

(3) Any change in emissions resulting from the change, including the pollutants emitted;

(4) Any new applicable requirement of the Clean Air Act; and

(5) Any permit term or condition that would no longer apply.

c. The responsible official of this facility shall certify in accordance with COMAR 26.11.02.02F that the proposed change meets the criteria for the use of on-permit changes under COMAR 26.11.03.18.

d. The Permittee shall attach a copy of each notice required by condition b. above to this Part 70 permit.

e. On-permit changes that qualify under COMAR 26.11.03.18 are not subject to the requirements for part 70 permit revisions.

f. Upon satisfying the requirements under COMAR 26.11.03.18, the Permittee may make the proposed change.

g. The permit shield in COMAR 26.11.03.23 does not apply to on-permit changes under COMAR 26.11.03.18.

h. The Permittee is subject to enforcement action if it is determined that an on-permit change made under COMAR 26.11.03.18 is not within the scope of the regulation or violates any requirement of the State air pollution control law.

17. FEE PAYMENT

[COMAR 26.11.02.16A(2) & (5)(b)]

a. The fee for this Part 70 permit is as prescribed in Regulation .19 of COMAR 26.11.02.

b. The fee is due on and shall be paid on or before each 12-month anniversary date of the permit.

c. Failure to pay the annual permit fee constitutes cause for revocation of the permit by the Department.

18. REQUIREMENTS FOR PERMITS-TO-CONSTRUCT AND APPROVALS

[COMAR 26.11.02.09.]

The Permittee may not construct or modify or cause to be constructed or modified any of the following sources without first obtaining, and having in current effect, the specified permits-to-construct and approvals:

a. New Source Review source, as defined in COMAR 26.11.01.01, approval required, except for generating stations constructed by electric companies;

b. Prevention of Significant Deterioration source, as defined in COMAR 26.11.01.01, approval required, except for generating stations constructed by electric companies;

c. New Source Performance Standard source, as defined in COMAR 26.11.01.01, permit to construct required, except for generating stations constructed by electric companies;

d. National Emission Standards for Hazardous Air Pollutants source, as defined in COMAR 26.11.01.01, permit to construct required, except for generating stations constructed by electric companies;

e. A stationary source of lead that discharges one ton per year or more of lead or lead compounds measured as elemental lead, permit to construct required, except for generating stations constructed by electric companies;

f. All stationary sources of air pollution, including installations and air pollution control equipment, except as listed in COMAR 26.11.02.10, permit to construct required;

g. In the event of a conflict between the applicability of (a.— e.) above and an exemption listed in COMAR 26.11.02.10, the provision that requires a permit applies.

h. Approval of a PSD or NSR source by the Department does not relieve the Permittee obtaining an approval from also obtaining all permits-to-construct required b y (c.— g.) above.

19. CONSOLIDATION OF PROCEDURES FOR PUBLIC PARTICIPATION

[COMAR 26.11.02.11C] and [COMAR 26.11.03.01K]

The Permittee may request the Department to authorize special procedures for the Permittee to apply simultaneously, to the extent possible, for a permit to construct and a revision to this permit.

These procedures may provide for combined public notices, informational meetings, and public hearings for both permits but shall not adversely affect the rights of a person, including EPA and affected states, to obtain information about the application for a permit, to comment on an application, or to challenge a permit that is issued.

These procedures shall not alter any existing permit procedures or time frames.

20. PROPERTY RIGHTS

[COMAR 26.11.03.06E(4)]

This Part 70 permit does not convey any property rights of any sort, or any exclusive privileges.

21. SEVERABILITY

[COMAR 26.11.03.06A(5)]

If any portion of this Part 70 permit is challenged, or any term or condition deemed unenforceable, the remainder of the requirements of the permit continues to be valid.

22. INSPECTION AND ENTRY

[COMAR 26.11.03.06G(3)]

The Permittee shall allow employees and authorized representatives of the Department, the EPA, and local environmental health agencies, upon presentation of credentials or other documents as may be required by law, to:

a. Enter at a reasonable time without delay and without prior notification the Permittee's property where a Part 70 source is located, emissions-related activity is conducted, or records required by this permit are kept;

b. Have access to and make copies of records required by the permit;

c. Inspect all emissions units within the facility subject to the permit and all related monitoring systems, air pollution control equipment, and practices or operations regulated or required by the permit; and

d. Sample or monitor any substances or parameters at or related to the emissions units at the facility for the purpose of determining compliance with the permit.

23. DUTY TO PROVIDE INFORMATION

[COMAR 26.11.03.06E(5)]

The Permittee shall furnish to the Department, within a reasonable time specified by the Department, information requested in writing by the Department in order to determine whether the Permittee is in compliance with the federally enforceable conditions of this Part 70 permit, or whether cause exists for revising or revoking the permit. Upon request, the Permittee shall also furnish to the Department records required to be kept under the permit.

For information claimed by the Permittee to be confidential and therefore potentially not discloseable to the public, the Department may require the Permittee to provide a copy of the records directly to the EPA along with a claim of confidentiality.

The Permittee shall also furnish to the Department, within a reasonable time specified by the Department, information or records requested in writing by the Department in order to determine if the Permittee is in compliance with the State-only enforceable conditions of this permit.

24. COMPLIANCE REQUIREMENTS

[COMAR 26.11.03.06E(1)] and [COMAR 26.11.03.06A(11)] and [COMAR 26.11.02.05]

The Permittee shall comply with the conditions of this Part 70 permit. Noncompliance with the permit constitutes a violation of the Clean Air Act, and/or the Environment Article Title 2 of the Annotated Code of Maryland and may subject the Permittee to:

a. Enforcement action,

b. Permit revocation or revision,

c. Denial of the renewal of a Part 70 permit, or

d. Any combination of these actions.

The conditions in this Part 70 permit are enforceable by EPA and citizens under the Clean Air Act except for the State-only enforceable conditions.

Under Environment Article Section 2-609, Annotated Code of Maryland, the Department may seek immediate injunctive relief against a person who violates this permit in such a manner as to cause a threat to human health or the environment.

25. CREDIBLE EVIDENCE

Nothing in this permit shall be interpreted to preclude the use of credible evidence to demonstrate noncompliance with any term of this permit.

26. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE

[COMAR 26.11.03.06E(2)]

The need to halt or reduce activity in order to comply with the conditions of this permit may not be used as a defense in an enforcement action.

27. CIRCUMVENTION

[COMAR 26.11.01.06]

The Permittee may not install or use any article, machine, equipment or other contrivance, the use of which, without resulting in a reduction in the total weight of emissions, conceals or dilutes emissions which would otherwise constitute a violation of any applicable air pollution control regulation.

28. PERMIT SHIELD

[COMAR 26.11.03.23]

A permit shield as described in COMAR 26.11.03.23 shall apply only to terms and conditions in this Part 70 permit that have been specifically identified as covered by the permit shield. Neither this permit nor COMAR 26.11.03.23 alters the following:

a. The emergency order provisions in Section 303 of the Clean Air Act, including the authority of EPA under that section;

b. The liability of the Permittee for a violation of an applicable requirement of the Clean Air Act before or when this permit is issued or for a violation that continues after issuance;

c. The requirements of the Acid Rain Program, consistent with Section 408(a) of the Clean Air Act;

d. The ability of the Department or EPA to obtain information from a source pursuant to Maryland law and Section 114 of the Clean Air Act; or

e. The authority of the Department to enforce an applicable requirement of the State air pollution control law that is not an applicable requirement of the Clean Air Act.

29. ALTERNATE OPERATING SCENARIOS

[COMAR 26.11.03.06A(9)]

For all alternate operating scenarios approved by the Department and contained within this permit, the Permittee, while changing from one approved scenario to another, shall contemporaneously record in a log maintained at the facility each scenario under which the emissions unit is operating and the date and time the scenario started and ended.

SECTION III PLANT WIDE CONDITIONS

1. PARTICULATE MATTER FROM CONSTRUCTION AND DEMOLITION

[COMAR 26.11.06.03D]

The Permittee shall not cause or permit any building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne.

2. OPEN BURNING

[COMAR 26.11.07]

Except as provided in COMAR 26.11.07.04, the Permittee shall not cause or permit an open fire from June 1 through August 31 of any calendar year. Prior to any open burning, the Permittee shall request and receive approval from the Department.

3. AIR POLLUTION EPISODE

[COMAR 26.11.05.04]

When requested by the Department, the Permittee shall prepare in writing standby emissions reduction plans, consistent with good industrial practice and safe operating procedures, for reducing emissions creating air pollution during periods of Alert, Warning, and Emergency of an air pollution episode.

4. REPORT OF EXCESS EMISSIONS AND DEVIATIONS

[COMAR 26.11.01.07] and [COMAR 26.11.03.06C(7)]

The Permittee shall comply with the following conditions for occurrences of excess emissions and deviations from requirements of this permit, including those in Section VI – State-only Enforceable Conditions:

a. Report any deviation from permit requirements that could endanger human health or the environment, by orally notifying the Department immediately upon discovery of the deviation;

b. Promptly report all occurrences of excess emissions that are expected to last for one hour or longer by orally notifying the Department of the onset and termination of the occurrence;

c. When requested by the Department the Permittee shall report all deviations from permit conditions, including those attributed to malfunctions as defined in COMAR 26.11.01.07A, within 5 days of the request by submitting a written description of the deviation to the Department. The written report shall include the cause, dates and times of the onset and termination of the deviation, and an account of all actions planned or taken to reduce, eliminate, and prevent recurrence of the deviation;

d. The Permittee shall submit to the Department semi-annual monitoring reports that confirm that all required monitoring was performed, and that provide accounts of all deviations from permit requirements that occurred during the reporting periods. Reporting periods shall be January 1 through June 30 and July 1 through December 31, and reports shall be submitted within 30 days of the end of each reporting period. Each account of deviation shall include a description of the deviation, the dates and times of onset and termination, identification of the person who observed or discovered the deviation, causes and corrective actions taken, and actions taken to prevent recurrence. If no deviations from permit conditions occurred during a reporting period, the Permittee shall submit a written report that so states.

e. When requested by the Department, the Permittee shall submit a written report to the Department within 10 days of receiving the request concerning an occurrence of excess emissions. The report shall contain the information required in COMAR 26.11.01.07D(2).

5. ACCIDENTAL RELEASE PROVISIONS

[COMAR 26.11.03.03B(23)] and [40 CFR 68]

The Permittee shall submit risk management plans by the date specified in 40 CFR 68.150.

The Permittee shall certify compliance with the requirements of 40 CFR 68 as part of the annual compliance certification as required by 40 CFR 70.

6. GENERAL TESTING REQUIREMENTS

[COMAR 26.11.01.04]

The Department may require the Permittee to conduct, or have conducted, testing to determine compliance with this Part 70 permit. The Department, at its option, may witness or conduct these tests. This testing shall be done at a reasonable time, and all information gathered during a testing operation shall be provided to the Department.

7. EMISSIONS TEST METHODS

[COMAR 26.11.01.04]

Compliance with the emissions standards and limitations in this Part 70 permit shall be determined by the test methods designated and described below or other test methods submitted to and approved by the Department.

Reference documents of the test methods approved by the Department include the following:

a. 40 CFR 60, appendix A

b. 40 CFR 51, appendix M

c. The Department's Technical Memorandum 91-01 "Test Methods and Equipment Specifications for Stationary Sources", (January 1991), as amended through Supplement 3, (October 1, 1997)

8. EMISSIONS CERTIFICATION REPORT

[COMAR 26.11.01.05-1] and [COMAR 26.11.02.19C] and [COMAR 26.11.02.19D]

The Permittee shall certify actual annual emissions of regulated pollutants from the facility on a calendar year basis.

a. The certification shall be on forms obtained from the Department and submitted to the Department not later than April 1 of the year following the year for which the certification is required;

b. The individual making the certification shall certify that the information is accurate to the individual's best knowledge. The individual shall be:

(1) Familiar with each source for which the certifications forms are submitted, and

(2) Responsible for the accuracy of the emissions information;

c. The Permittee shall maintain records necessary to support the emissions certification including the following information if applicable:

(1) The total amount of actual emissions of each regulated pollutant and the total of all regulated pollutants;

(2) An explanation of the methods used to quantify the emissions and the operating schedules and production data that were used to determine emissions, including significant assumptions made;

(3) Amounts, types and analyses of all fuels used;

(4) Emissions data from continuous emissions monitors that are required by this permit, including monitor calibration and malfunction information;

(5) Identification, description, and use records of all air pollution control equipment and compliance monitoring equipment including:

(a) Significant maintenance performed,
(b) Malfunctions and downtime, and
(c) Episodes of reduced efficiency of all equipment;

(6) Limitations on source operation or any work practice standards that significantly affect emissions; and

(7) Other relevant information as required by the Department.

9. COMPLIANCE CERTIFICATION REPORT

[COMAR 26.11.03.06G(6) and (7)]

The Permittee shall submit to the Department and EPA Region III a report certifying compliance with each term of this Part 70 permit including each applicable standard, emissions limitation, and work practice for the previous calendar year by April 1 of each year.

a. The compliance certification shall include:

(1) The identification of each term or condition of this permit which is the basis of the certification;

(2) The compliance status;

(3) Whether the compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of each source, currently and over the reporting period; and

(5) Any other information required to be reported to the Department that is necessary to determine the compliance status of the Permittee with this permit.

b. The Permittee shall submit the compliance certification reports to the Department and EPA simultaneously.

10. CERTIFICATION BY RESPONSIBLE OFFICIAL

[COMAR 26.11.02.02F]

All application forms, reports, and compliance certifications submitted pursuant to this permit shall be certified by a responsible official as to truth, accuracy, and completeness. The Permittee shall expeditiously notify the Department of an appointment of a new responsible official.

The certification shall be in the following form:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons

who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

11. SAMPLING AND EMISSIONS TESTING RECORD KEEPING

[COMAR 26.11.03.06C(5)]

The Permittee shall gather and retain the following information when sampling and testing for compliance demonstrations:

a. The location as specified in this permit, and the date and time that samples and measurements are taken;

b. All pertinent operating conditions existing at the time that samples and measurements are taken;

c. The date that each analysis of a sample or emissions test is performed and the name of the person taking the sample or performing the emissions test;

d. The identity of the Permittee, individual, or other entity that performed the analysis;

e. The analytical techniques and methods used; and

f. The results of each analysis.

12. GENERAL RECORDKEEPING

[COMAR 26.11.03.06C(6)]

The Permittee shall retain records of all monitoring data and information that support the compliance certification for a period of five (5) years from the date that the monitoring, sample measurement, application, report or emissions test was completed or submitted to the Department.

These records and support information shall include:

a. All calibration and maintenance records;

b. All original data collected from continuous monitoring instrumentation;

c. Records which support the annual emissions certification; and

d. Copies of all reports required by this permit.

13. GENERAL CONFORMITY

[COMAR 26.11.26.09]

The Permittee shall comply with the general conformity requirements of 40 CFR 93, Subpart B and COMAR 26.11.26.09.

14. ASBESTOS PROVISIONS

[40 CFR 61, Subpart M]

The Permittee shall comply with 40 CFR 61, Subpart M when conducting any renovation or demolition activities at the facility.

15. OZONE DEPLETING REGULATIONS

[40 CFR 82, Subpart F]

The Permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for MVACs in subpart B:

a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the prohibitions and required practices pursuant to 40 CFR 82.154 and 82.156.

b. Equipment used during the maintenance, service, repair or disposal of appliances shall comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

c. Persons performing maintenance, service, repairs or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.

d. Persons performing maintenance, service, repairs or disposal of appliances shall certify with the Administrator pursuant to 40 CFR 82.162.

e. Persons disposing of small appliances, MVACS, and MVAC-like appliances as defined in 40 CFR 82.152, shall comply with record keeping requirements pursuant to 40 CFR 82.166.

f. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.

g. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

16. ACID RAIN PERMIT

The Permittee shall comply with the provisions and all applicable requirements of the Phase II Acid Rain Permit. The renewal Phase II Acid Rain Permit is attached as Appendix A.

SECTION IV PLANT SPECIFIC CONDITIONS

This section provides tables that include the emissions standards, emissions limitations, and work practices applicable to each emissions unit located at this facility. The Permittee shall comply with all applicable emissions standards, emissions limitations and work practices included herein.

The tables also include testing, monitoring, record keeping and reporting requirements specific to each emissions unit. In addition to the requirements included here in **Section IV**, the Permittee is also subject to the general testing, monitoring, record keeping and reporting requirements included in **Section III – Plant Wide Conditions** of this permit.

Unless otherwise provided in the specific requirements for an emissions unit, the Permittee shall maintain at the facility for at least five (5) years, and shall make available to the Department upon request, all records that the Permittee is required under this section to establish. [**Reference: COMAR 26.11.03.06C(5)(g)**]

Table IV – 1	
1.0	**Emissions Unit Number(s): FSC-BS-Unit1 and FSC-BS-Unit2** **FSC-BS-Unit1 and FSC-BS-Unit2:** Two (2) solid fossil fuel fired generating units with No.2 oil used for start-up purposes. These Units are also capable of re-burning high carbon fly ash with the solid fuel/coal that has been recovered from the fly ash separation equipment on site. Emissions from Units 1 and 2 are passed through an electrostatic precipitator, an SCR system, hydrated lime or equivalent, a powdered activated carbon (PAC) injection system, a baghouse and a flue gas desulfurization (FGD) system prior to being discharge through a single stack. **[3-0015 & 3-0016]**
1.1	**Applicable Standards/Limits:** A. Control of Visible Emissions **1. COMAR 26.11.09.05** - Visible Emissions. "A. Fuel Burning Equipment. (2) Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity.

Table IV – 1	
	(3) Exceptions. Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, startup, or adjustments or occasional cleaning of control equipment if: (a) The visible emissions are not greater than 40 percent opacity; and (b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty minute period." **2. 40 CFR Part 60 Subpart D**—Standards of Performance for Fossil-Fuel-Fired Steam Generators (NSPS): **See Table IV-1a: NSPS**. B. Control of Particulate Matter Emissions **1. COMAR 26.11.09.06B(3)** – Solid Fuel Burning Equipment. "A person may not cause or permit particulate matter caused by the combustion of solid fuel to be discharged into the atmosphere in excess of the amounts shown in Table 1." ***For these units, the maximum allowable emissions of particulate matter 0.03 gr/scfd @ 50% excess air***. **COMAR 26.11.09.06C**. Determination of Compliance (by stack test). "Compliance with the particulate matter emissions standards in this regulation shall be calculated as the average of 3 test runs using EPA Test Method 5 or other United States Environmental Protection Agency test method approved by the Department." **2. 40 CFR Part 60 Subpart D**—Standards of Performance for Fossil-Fuel-Fired Steam Generators (NSPS): **See Table IV-1a: NSPS** **3. CPCN – Case No. 9075** "To avoid triggering the Prevention of Significant Deterioration (PSD) applicability for PM and PM-10 for this Project: (a) Emissions from Brandon Shores Units 1 and 2 each shall not exceed the following: PM/PM-10: **0.015 lb/MMBtu** (filterable), as determined by (1) the average of three stack tests, or (2) if continuous emission monitoring for particulate matter is used to demonstrate compliance, a 24-hour rolling average; Total PM/PM-10: **0.034 lb/MMBtu** (filterable and condensable), as determined by the average of three stack tests." **[Reference: CPCN – Case No 9075, Section VII Condition (21)(a)]** C. Control of Sulfur Oxides **1. COMAR 26.11.09.07**: Control of Sulfur Oxides From Fuel Burning Equipment. "A. Sulfur Content Limitations for Fuel. A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations:

Table IV – 1

(2) In Areas III and IV:
(a) **All solid fuels, 1.0 percent;**
(b) **Distillate fuel oils, 0.3 percent;** (Note: for No. 2 fuel oil on start-up)
(c) Residual fuel oils, 1.0 percent."

2. 40 CFR Part 60 Subpart D—Standards of Performance for Fossil-Fuel-Fired Steam Generators (NSPS): **See Table IV-1a: NSPS**

3. Healthy Air Act
COMAR 26.11.27.03C. SO_2 Emission Limitations.
(1) Except as provided in §E of this regulation, annual SO_2 emissions from each affected electric generating unit may not exceed the number of tons in §C(2) of this regulation.
(2) Annual Tonnage Limitations.

Affected Unit	Annual SO_2 Tonnage Limitations Beginning
	January 1, 2013
Brandon Shores Unit 1	5,392 tons
Brandon Shores Unit 2	5,627 tons

COMAR 26.11.27.03E. System-Wide Compliance Determinations.
(1) Compliance with the emission limitations in §§B and C of this regulation may be achieved by demonstrating that the total number of tons emitted from all electric generating units in a system does not exceed the sum of the tonnage limitations for all electric generating units in that system.
(2) A system-wide compliance determination shall be based only upon emissions from units in Maryland that are subject to the emission limitations in §§B and C of this regulation.
(3) If a unit that is part of a system is transferred to a different person that does not own, operate, lease, or control an affected unit subject to this chapter, the transferred unit shall meet the limitations in §§B and C of this regulation applicable to that electric generating unit.

4. CPCN – Case No. 9075
PSD-Best Available Control Technology (BACT) for Sulfuric Acid Mist (SAM)
Emissions of SAM shall not exceed **0.027 pounds per million Btu** (3-hour average).
Compliance with this standard will be determined by the average of 3 valid stack test runs using methods approved by the Department.
[Reference: CPCN Case No. 9075– Section V. condition (17)(b)]

5. Acid Rain Provisions
The Permittee shall comply with the requirements of the Phase II Acid Rain

Table IV – 1

Permit issued for this generating station. Note: A renewal Phase II Acid Rain Permit will be issued in conjunction with this Part 70 permit and is attached to the Part 70 permit as Appendix A.

6. Cross-State Air Pollution Rule
See Table IV-13: CSAPR for requirements.

D. Control of Nitrogen Oxides
1. NO_X RACT Requirements – See Table IV-11: NO_X RACT

2. 40 CFR Part 60 Subpart D—Standards of Performance for Fossil-Fuel-Fired Steam Generators (NSPS): **See Table IV-1a: NSPS**

3. Healthy Air Act
COMAR 26.11.27.03B. NO_X Emission Limitations.
"(1) Except as provided in §E of this regulation, annual NO_X emissions from each affected electric generating unit may not exceed the number of tons in §B(2) of this regulation.
(2) Annual Tonnage Limitations.

Affected Unit	Annual NO_X Tonnage Limitations Beginning
	January 1, 2012
Brandon Shores Unit 1	2,414 tons
Brandon Shores Unit 2	2,519 tons

(3) Except as provided in §E of this regulation, ozone season NO_X emissions from each affected electric generating unit may not exceed the number of tons in §B(4) of this regulation."

"(6) Ozone Season Tonnage Limitations.

Affected Unit	Ozone Season NO_X Tonnage Limitations Beginning
	May 1, 2012
Brandon Shores Unit 1	1,124 tons
Brandon Shores Unit 2	1,195 tons

(7) Electric System Reliability During Ozone Seasons.
(a) An exceedance of the NO_X limitations in §B(4) or (6) of this regulation which occurs because PJM Interconnection, LLC or a successor independent system operator, acts to invoke "Maximum Emergency Generation", "Load Reduction", "Voltage Reduction", "Curtailment of Non-essential Building Load", or "Manual Load Dump" procedures in accordance with the current PJM Manual, or a PJM alert preceding such action as to a generating unit that has temporarily shut down in order to avoid potential interruption in electric service and maintain electric system reliability is not a violation of this chapter provided that:

Table IV – 1	
	(i) Within 36 hours following the action, the owner or operator of the affected electric generating unit or units notifies the Manager of the Air Quality Compliance Program of the action taken by PJM Interconnection and provides the Department with documentation of the action which is satisfactory to the Department; (ii) Within 48 hours after completion of the action, the owner or operator of the affected unit or units provides the Department with the estimated NO_X emissions in excess of the emission limitation; and (iii) *See State-only enforceable section of the permit for additional requirement.* (b) The owner or operator of an electric generating unit or system, as applicable, shall send written notice to the Manager of the Air Quality Compliance Program not later than 5 business days following the day when the cumulative ozone season NO_X emissions of an electric generating unit or system, as applicable, are: (i) Equal to approximately 80 percent of the applicable ozone season emission limitation; and (ii) Equal to the applicable ozone season emission limitation. “ **COMAR 26.11.27.03E**. System-Wide Compliance Determinations. “(1) Compliance with the emission limitations in §§B and C of this regulation may be achieved by demonstrating that the total number of tons emitted from all electric generating units in a system does not exceed the sum of the tonnage limitations for all electric generating units in that system. (2) A system-wide compliance determination shall be based only upon emissions from units in Maryland that are subject to the emission limitations in §§B and C of this regulation. (3) If a unit that is part of a system is transferred to a different person that does not own, operate, lease, or control an affected unit subject to this chapter, the transferred unit shall meet the limitations in §§B and C of this regulation applicable to that electric generating unit.” **4. Acid Rain Provisions** The Permittee shall comply with the requirements of the Phase II Acid Rain Permit issued for this generating station. Note: A renewal Phase II Acid Rain Permit will be issued in conjunction with this Part 70 permit and is attached to the Part 70 permit as Appendix A. **5. Cross-State Air Pollution Rule** **See Table IV-13: CSAPR for requirements**.

Table IV – 1	
	E. Control of CO Emissions **PSD-Best Available Control Technology (BACT) for Carbon Monoxide (CO**). Emissions of CO shall not exceed **0.2 pounds per million Btu (lb/MMBtu)** (3-hour average). This limit shall be achieved by the application of good combustion practices. Compliance with this standard will be determined by the average of 3 valid stack test runs using methods approved by the Department **[Reference: CPCN Case No. 9075, Section V Condition 17a.]** F. Control of VOC Emissions **Lowest Achievable Emission Rate (LAER) for Volatile Organic Compound (VOC)** Emissions of VOC shall not exceed **0.0024 lb/MMBtu** per unit (3-hour average). Compliance with this standard will be determined by the average of 3 valid stack test runs using methods approved by the Department **[Reference: CPCN Case No. 9075, Section VI Condition 19a.]** G. Control of HAP Emissions **See Table IV-12: MACT Subpart UUUUU Requirements.**
1.2	**Testing Requirements:** A. Control of Visible Emissions **1**. See Monitoring Requirements. B. Control of Particulate Matter Emissions **1**. The Permittee, in accordance with COMAR 26.11.01.04A(1), shall conduct annual testing using EPA Reference Methods of 40 CFR Part 60, Appendix A. The Permittee shall submit a test protocol to the Department for approval at least 30 days prior to the proposed test date. Note: The Permittee may petition the Department to use any Method 5 QC/QA testing for the PM CEMS to satisfy the requirement of the annual compliance stack test. **[Reference: COMAR 26.11.03.06C]** **2. 40 CFR Part 60 Subpart D**—Standards of Performance for Fossil-Fuel-Fired Steam Generators (NSPS): **See Table IV-1a: NSPS** **3. CPCN:** The Permittee, in accordance with COMAR 26.11.01.04A(1), shall conduct annual testing using EPA Reference Methods of 40 CFR Part 60, Appendix A The Permittee shall submit a test protocol to the Department for approval at least 30 days prior to the proposed test date. Note: The Permittee may petition the Department to use any Method 5

Table IV – 1

QC/QA testing for the PM CEMS to satisfy the requirement of the annual compliance stack test. **[Reference: COMAR 26.11.03.06C]**

C. Control of Sulfur Oxides

1. The Permittee shall perform quality control/ quality assurance procedures on the continuous emission monitoring system as established in 40 CFR Part 75, Appendix A. **[Reference: 40 CFR Part 75, Appendix A & COMAR 26.11.03.06C]**.

2. 40 CFR Part 60 Subpart D—Standards of Performance for Fossil-Fuel-Fired Steam Generators (NSPS): **See Table IV-1a: NSPS**

3. Healthy Air Act

The Permittee shall perform quality control/ quality assurance procedures on the continuous emission monitoring system as established in 40 CFR Part 75, Appendix A. **[Reference: 40 CFR Part 75, Appendix A & COMAR 26.11.03.06C]**.

4. CPCN

The Permittee shall perform quality control/ quality assurance procedures on the SO_2 continuous emission monitoring system that is used in conjunction with a data acquisition system in order to continuously monitor SAM emissions. **[Reference: COMAR 26.11.03.06C]**.

5. Acid Rain Provisions

The Permittee shall perform quality control/ quality assurance procedures on the continuous emission monitoring system as established in 40 CFR Part 75, Appendix A. **[Reference: 40 CFR Part 75, Appendix A & COMAR 26.11.03.06C]**.

D. Control of Nitrogen Oxides

1. NO_X RACT Requirements – See Table IV-11: NO_X RACT

2. 40 CFR Part 60 Subpart D—Standards of Performance for Fossil-Fuel-Fired Steam Generators (NSPS): **See Table IV-1a: NSPS**

3. Healthy Air Act

The Permittee shall perform quality control/ quality assurance procedures on the continuous emission monitoring system as established in 40 CFR Part 75, Appendix A. **[Reference: 40 CFR Part 75, Appendix A & COMAR 26.11.03.06C]**

Table IV – 1	
	4. Acid Rain Provisions The Permittee shall perform quality control/ quality assurance procedures on the continuous emission monitoring system as established in 40 CFR Part 75, Appendix A. **[Reference: 40 CFR Part 75, Appendix A & COMAR 26.11.03.06C]**. E. Control of CO Emissions **PSD-Best Available Control Technology (BACT) for Carbon Monoxide (CO**) The Permittee shall perform quality control/ quality assurance procedures on the CO continuous emission monitoring system. **[Reference: CPCN Case No. 9075-Section VIII, Condition 22, 23 and 24]**. F. Control of VOC Emissions **Lowest Achievable Emission Rate (LAER) for Volatile Organic Compound (VOC)** The Permittee shall perform quality control/ quality assurance procedures on the CO continuous emission monitoring system that is used in conjunction with a data acquisition system in order to continuously monitor VOC emissions. **[Reference: CPCN Case No. 9075-Section VIII, condition 22, 23 and 24]**.
1.3	**Monitoring Requirements:** A. Control of Visible Emissions **1**. COMAR 26.11.09.05C, allows for the discontinuation of a COM on fuel burning equipment that is equipped with a flue gas desulfurization device. If operation of the opacity monitor is discontinued, the regulation requires an alternative monitoring plan to be submitted to and approved by the Department which includes a schedule for monthly Method 9 visible emissions observations. As an alternative to the COMAR 26.11.01.10 requirement to use a COM and until an alternate monitoring plan is submitted and approved: The Permittee shall perform a visible emissions observation using an EPA Reference Method 9 of the exhaust from the scrubber stack. The observation shall be performed once a week for one hour period of time. If after a six month period time, no violations of the opacity limit are observed, the frequency of observation may be reduced to once per month. At any point in time that a violation of the opacity limit is observed, the observations shall return to the weekly schedule until another six month period elapses without a violation. **[Reference: COMAR 26.11.09.05C & COMAR 26.11.01.10]**

Table IV – 1	
	B. Control of Particulate Matter Emissions **1**. The Permittee shall use reasonable efforts to keep each PM CEMS operating and producing data whenever either Unit served by the PM CEMS is operating. **[Reference: COMAR 26.11.06.03C and Condition 25-Consent Decree of June 1,2007]** Each PM CEMS shall be comprised of a continuous particle mass monitor measuring particulate matter concentration in grains per dry standard cubic feet on a 24-hour rolling average basis, unless State or federal law or regulations require a different averaging period or different procedures, in which case, the Permittee shall be subject to applicable state or federal requirements. The Permittee shall maintain, in an electronic database, the average emission values recorded by each PM CEMS. **[Reference: COMAR 26.11.06.03C]** **2. 40 CFR Part 60 Subpart D**—Standards of Performance for Fossil-Fuel-Fired Steam Generators (NSPS): **See Table IV-1a: NSPS** **3. CPCN**: See Recording Requirement. C. Control of Sulfur Oxides **1**. "The owner or operator of fuel-burning equipment burning coal, with a heat input capacity of 100 million Btu per hour or greater, shall install CEMs to measure and record sulfur dioxide, nitrogen oxide, either oxygen or carbon dioxide, and flow." [**Reference: COMAR 26.11.01.11B(2)]** The Permittee shall perform quality control/quality assurance procedures on the continuous emission monitoring system as established in 40 CFR Part 75, Appendix B. **[Reference: COMAR 26.11.01.11D]** **2. 40 CFR Part 60 Subpart D**—Standards of Performance for Fossil-Fuel-Fired Steam Generators (NSPS): **See Table IV-1a: NSPS** **3. Healthy Air Act** **COMAR 26.11.27.05** – **Monitoring** and Reporting Requirements "**A**. Compliance with the emission limitations in this chapter shall be demonstrated with a continuous emission monitoring system that is installed, operated, and certified in accordance with 40 CFR Part 75." **4. CPCN** **PSD-Best Available Control Technology (BACT) for Sulfuric Acid Mist (SAM)** The Permittee shall operate the boilers in accordance the Operations and Maintenance Plant (the Plan). The Plan shall include a description of good combustion practices and methods to be employed to minimize SAM

Table IV – 1	
	emissions and methods used to estimate emissions of SAM emissions. In accordance with the Operations and Maintenance Plan, the Permittee shall continuously monitor estimated SAM emissions by using a data acquisition system to collect data from the SO_2 CEM and apply a factor of 0.003 SAM/SO_2 in order to calculate SAM emissions for recordkeeping and reporting purposes. The Permittee may petition the Department to revise the factor based upon the results of additional compliance stack tests. **[Reference: COMAR 26.11.03.06C and CPCN Case No. 9075, Section V condition (17)(c); Letter dated March 4, 2013: Results of May 2012 stack test]** **5. Acid Rain Provisions** The Permittee shall install, certify, operate, and maintain a SO_2 emission monitoring system that meets the requirements of 40 CFR Part 75, subpart B- Monitoring Provisions. **[Reference: §75.10(a)(1)** and **Acid Rain Permit].** D. Control of Nitrogen Oxides **1. NO_X RACT Requirements – See Table IV-11: NO_X RACT** **2. 40 CFR Part 60 Subpart D**—Standards of Performance for Fossil-Fuel-Fired Steam Generators (NSPS): **See Table IV-1a: NSPS** **3. Healthy Air Act** **COMAR 26.11.27.05** – **Monitoring** and Reporting Requirements "**A**. Compliance with the emission limitations in this chapter shall be demonstrated with a continuous emission monitoring system that is installed, operated, and certified in accordance with 40 CFR Part 75." **4. Acid Rain Provisions** The Permittee shall install, certify, operate, and maintain a NO_X emission monitoring system that meets the requirements of 40 CFR Part 75, subpart B- Monitoring Provisions. **[Reference: §75.10(a)(1)** and **Acid Rain Permit].** E. Control of CO Emissions **PSD-Best Available Control Technology (BACT) for Carbon Monoxide (CO**) The Permittee shall operate the boilers in accordance the Operations and Maintenance Plan (the Plan). The Plan shall include a description of good combustion practices and methods to be employed to minimize CO emissions and methods used to estimate emissions of CO and SAM emissions.

Table IV – 1	
	In accordance with the Operations and Maintenance Plan, the Permittee shall continuously monitor CO emissions using a continuous emissions monitor. The Permittee shall perform QC/QA procedures on the CEM system in accordance with facility specific practices and/or those recommended by the CEM manufacturer. **[Reference: COMAR 26.11.03.06C and CPCN Case No. 9075 – June 4, 2007, Section V condition (17)(c)]** F. Control of VOC Emissions **Lowest Achievable Emission Rate (LAER) for Volatile Organic Compound (VOC)** The Permittee shall operate the boilers in accordance the Operations and Maintenance Plan (the Plan). The Plan shall include a description of good combustion practices and methods to be employed to minimize VOC emissions and methods used to estimate VOC emissions during startup, shutdown, and malfunction of the generating units or associated pollution control systems. In accordance with the Operations and Maintenance Plan, the Permittee shall continuously monitor estimated VOC emissions by using a data acquisition system to collect data from the CO CEM and apply a factor of 0.012 VOC/CO in order to calculate VOC emissions for recordkeeping and reporting purposes. The Permittee may petition the Department to revise the factor based upon the results of additional compliance stack tests. **[Reference: COMAR 26.11.03.06C and CPCN Case No. 9075 – Section VI condition (19)(b)]**
1.4	**Record Keeping Requirements:** **Note:** All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)]** A. Control of Visible Emissions **1**. The Permittee shall maintain all records of Method 9 visible emissions observations. **[Reference: COMAR 26.11.03.06C]** B. Control of Particulate Matter Emissions **1.** The Permittee shall operate and maintain a PM CEMS to produce valid data whenever a Unit is operating. Each PM CEMS shall be comprised of a continuous particle mass monitor measuring particulate matter concentration in grains per dry standard cubic feet on a six hour rolling average. **[Reference: COMAR 26.11.06.03C]**

Table IV – 1	
	2. 40 CFR Part 60 Subpart D—Standards of Performance for Fossil-Fuel-Fired Steam Generators (NSPS): **See Table IV-1a: NSPS** **3. CPCN**: The Permittee shall operate and maintain a PM CEMS to produce valid data whenever a Unit is operating. Each PM CEMS shall be comprised of a continuous particle mass monitor measuring particulate matter concentrations and calculating emissions in units of lb/MMBtu on a 24 hour rolling average basis. **[Reference: COMAR 26.11.06.03C]** C. Control of Sulfur Oxides **1**. The Permittee shall maintain all records necessary to comply with the data reporting requirements of COMAR 26.11.01.11E. **[Reference: COMAR 26.11.01.11E(2)].** **2. 40 CFR Part 60 Subpart D**—Standards of Performance for Fossil-Fuel-Fired Steam Generators (NSPS): **See Table IV-1a: NSPS** **3. Healthy Air Act** The Permittee shall maintain records sufficient to demonstrate compliance with the requirements of the Healthy Air Act, COMAR 26.11.27. **[Reference: COMAR 26.11.01.05A].** **4. CPCN** **PSD Best Available Control Technology (BACT) for Sulfuric Acid Mist (SAM)** The Permittee shall maintain a record of the data collected by the data acquisition system which calculates SAM emissions on a continuous basis. In addition the Permittee shall maintain all records necessary to demonstrate compliance with the Operations and Maintenance Plan, including date of occurrence and duration of any startup, shutdown and malfunctions. **[Reference: COMAR 26.11.03.06C and CPCN Case No. 9075 – Section V condition 17c. & Section X condition 29.]** **5. Acid Rain Provisions** The Permittee shall comply with the recordkeeping requirements of 40 CFR Part 72 and 40 CFR Part 75. [**Reference: See Acid Rain Permit]** D. Control of Nitrogen Oxides **1. NO_X RACT Requirements – See Table IV-11: NO_X RACT**

Table IV – 1	
	2. 40 CFR Part 60 Subpart D—Standards of Performance for Fossil-Fuel-Fired Steam Generators (NSPS): **See Table IV-1a: NSPS** **3. Healthy Air Act** The Permittee shall maintain records sufficient to demonstrate compliance with the requirements of the Healthy Air Act, COMAR 26.11.27. **[Reference: COMAR 26.11.01.05A].** **4. Acid Rain Provisions** The Permittee shall comply with the recordkeeping requirements of 40 CFR Part 72 and 40 CFR Part 75. [**Reference: See Acid Rain Permit]** E. Control of CO Emissions **PSD- Best Available Control Technology (BACT) for Carbon Monoxide (CO).** The Permittee shall maintain a record of the CO CEM readings collected by the data acquisition system. The Permittee shall maintain all records necessary to demonstrate compliance with the Operations and Maintenance Plan, including date of occurrence and duration of any startup, shutdown and malfunctions. **[Reference: COMAR 26.11.03.06C and CPCN Case No. 9075, Section V condition 17. & Section X condition 29.]** F. Control of VOC Emissions **Lowest Achievable Emission Rate (LAER) for Volatile Organic Compound (VOC)** The Permittee shall maintain a record of the data collected by the data acquisition system which calculates VOC emissions on a continuous basis. The Permittee shall maintain all records necessary to demonstrate compliance with the Operations and Maintenance Plan, including date of occurrence and duration of any startup, shutdown and malfunctions in the operation of Brandon Shores Units 1 and 2 and associated emissions control equipment. **[Reference: COMAR 26.11.03.06C and CPCN Case No. 9075, Section VI condition 19. & Section X condition 29.]**
1.5	**Reporting Requirements:** A. Control of Visible Emissions **1**. The Permittee shall submit to the Department results of visible emissions observations upon request. **[Reference: COMAR 26.11.03.06C]**

Table IV – 1	
	B. Control of Particulate Matter Emissions **1.** The Permittee shall submit a test protocol/notification to the Department for approval at least 30 days prior to test and a notice of intent to test at least 10 days prior to the scheduled test date. The Permittee shall submit the results of stack tests in a final report within 60 days from test completion.**[Reference: COMAR 26.11.01.04A].** The Permittee shall report to the Department all periods of excess emissions in quarterly PM CEMS reports. All data shall be reported in six hour rolling averages. **[Reference: COMAR 26.11.03.06C]** **2. 40 CFR Part 60 Subpart D**—Standards of Performance for Fossil-Fuel-Fired Steam Generators (NSPS): **See Table IV-1a: NSPS** **3. CPCN:** "Final results of each compliance stack test must be submitted to MDE-ARMA within 60 days after completion of the test. Analytical data shall be submitted to MDE-ARMA directly from the emission testing company." **[Reference: CPCN Case No. 9075 Section X. condition 31]** The Permittee shall report to the Department all period of excess emissions in quarterly PM CEMS. All data shall be reported in 24 hour rolling averages. **[Reference: COMAR 26.11.03.06C]** The Permittee shall submit a report to MDE-ARMA to be postmarked by the 30th day following the end of each calendar quarter that summarizes the monthly and consecutive rolling 12-month total emissions of PM, PM_{10} separately for each boiler, the material handling operations, and for total emissions of those pollutants from the Brandon Shores facility." **[Reference: CPCN Case No. 9075 Section X. condition 30]** C. Control of Sulfur Oxides **1**. "(1) CEM System Downtime Reporting Requirements. (a) All CEM system downtime that lasts or is expected to last more than 24 hours shall be reported to the Department by telephone before 10 a.m. of the first regular business day following the breakdown. (b) The system breakdown report required by §E(1)(a) of this regulation shall include the reason, if known, for the breakdown and the estimated period of time that the CEM will be down. The owner or operator of the CEM shall notify the Department by telephone when an out-of-service CEM is back in operation and producing data that has met performance specifications for accuracy, reliability, and durability of acceptable monitoring systems, as provided in COMAR 26.11.31, and is producing data.

Table IV – 1	
	(2) CEM Data Reporting Requirements. (a) All test results shall be reported in a format approved by the Department. (b) Certification testing shall be repeated when the Department determines that the CEM data may not meet performance specifications because of component replacement or other conditions that affect the quality of generated data. (c) A quarterly summary report shall be submitted to the Department not later than 30 days following each calendar quarter. The report shall be in a format approved by the Department, and shall include the following: (i) The cause, time periods, and magnitude of all emissions which exceed the applicable emission standards; (ii) The source downtime including the time and date of the beginning and end of each downtime period and whether the source downtime was planned or unplanned; (iii) The time periods and cause of all CEM downtime including records of any repairs, adjustments, or maintenance that may affect the ability of the CEM to meet performance specifications of emission data; (iv) Quarterly totals of excess emissions, installation downtime, and CEM downtime during the calendar quarter; (v) Quarterly quality assurance activities; (vi) Daily calibration activities that include reference values, actual values, absolute or percent of span differences, and drift status; and (vii) Other information required by the Department that is determined to be necessary to evaluate the data, to ensure that compliance is achieved, or to determine the applicability of this regulation. (d) All information required by this regulation to be reported to the Department shall be retained and made available for review by the Department for a minimum of 2 years from the time the report is submitted." **2. 40 CFR Part 60 Subpart D**—Standards of Performance for Fossil-Fuel-Fired Steam Generators (NSPS): **See Table IV-1a: NSPS** **3. Healthy Air Act** **COMAR 26.11.27.05** – Monitoring and **Reporting** Requirements "B. Beginning with calendar year 2007 and each year thereafter, the owner or operator of each electric generating unit subject to this chapter shall submit an annual report to the Department, the Department of Natural Resources, and the Public Service Commission. The report for each calendar year shall be submitted not later than March 1 of the following year. C. Each report shall include: (1) Emissions performance results related to compliance with the emission requirements under this chapter;

Table IV – 1	
	(2) Emissions of NO_X and SO_2, and beginning with calendar year 2010, mercury, emitted during the previous calendar year from each affected unit; (3) A current compliance plan; and (4) Any other information requested by the Department." **4. CPCN** **PSD-Best Available Control Technology (BACT) for Sulfuric Acid Mist (SAM)** 1. "CPSG (now Raven Power Fort Smallwood Complex LLC) shall submit a report to MDE-ARMA to be postmarked by the 30th day following the end of each calendar quarter that: a) Summarizes separately the date, time, and duration of each startup, shutdown, or malfunction that occurred at Brandon Shores Units 1 and 2 and associated pollution control equipment during the prior period for the purposes of complying with BACT and LAER. The report shall include total monthly and consecutive 12-month total hours of startup, shutdown, and malfunction for each unit; b) Summarizes the monthly and consecutive rolling 12-month total emissions of PM, PMI0, **SO_2**, NO_X, CO, VOCs, and **SAM** separately for each boiler, the material handling operations, and for total emissions of those pollutants from the Brandon Shores facility." 2. The Permittee shall report to the Department within 30 days after the end of each calendar quarter, any 3-hour block average estimated SAM emission values calculated by the DAS in accordance with the O&M Plan that were greater than 0.027 pounds per mmBtu while the unit was burning primary fuel. **[Reference: COMAR 26.11.03.06C and CPCN Case No. 9075 Section X. condition 30]** **5. Acid Rain Provisions** The Permittee shall comply with the reporting requirements of 40 CFR Part 72 and 40 CFR Part 75. **[Reference: See the Acid Rain Permit]** D. Control of Nitrogen Oxides **1. NO_X RACT Requirements – See Table IV-11: NO_X RACT** **2. 40 CFR Part 60 Subpart D**—Standards of Performance for Fossil-Fuel-Fired Steam Generators (NSPS): **See Table IV-1a: NSPS** **3. Healthy Air Act** **COMAR 26.11.27.05** – Monitoring and **Reporting** Requirements "B. Beginning with calendar year 2007 and each year thereafter, the owner or operator of each electric generating unit subject to this chapter shall

Table IV – 1	
	submit an annual report to the Department, the Department of Natural Resources, and the Public Service Commission. The report for each calendar year shall be submitted not later than March 1 of the following year. C. Each report shall include: (1) Emissions performance results related to compliance with the emission requirements under this chapter; (2) Emissions of NO_X and SO_2, and beginning with calendar year 2010, mercury, emitted during the previous calendar year from each affected unit; (3) A current compliance plan; and (4) Any other information requested by the Department." **4. Acid Rain Provisions** The Permittee shall comply with the reporting requirements of 40 CFR Part 72 and 40 CFR Part 75. **[Reference: See the Acid Rain Permit]** **5. Additional reporting-CPCN 9075** The Permittee shall submit a report to MDE-ARMA to be postmarked by the 30th day following the end of each calendar quarter that summarizes the monthly and consecutive rolling 12-month total emissions of NO_X separately for each boiler and for total emissions of NO_X from the Brandon Shores facility." **[Reference: CPCN Case No. 9075 Section X. condition 30]** E. Control of CO Emissions **PSD-Best Available Control Technology (BACT) for Carbon Monoxide (CO).** **CPCN Brandon Shores Facility-wide Reporting Requirement** 1.The Permittee shall submit a report to MDE-ARMA to be postmarked by the 30th day following the end of each calendar quarter that a) Summarizes separately the date, time, and duration of each startup, shutdown, or malfunction that occurred at Brandon Shores Units 1 and 2 and associated pollution control equipment during the prior period for the purposes of complying with BACT and LAER. The report shall include total monthly and consecutive 12-month total hours of startup, shutdown, and malfunction for each unit; b) Summarizes the monthly and consecutive rolling 12-month total emissions of PM, PM_{10}, $S0_2$, NO_X, **CO**, VOCs, and SAM separately for each boiler, the material handling operations, and for total emissions of those pollutants from the Brandon Shores facility. **[Reference: CPCN Case No. 9075, Section X. condition 30]**

Table IV – 1	
	2. If additional tests are requested, the Permittee shall submit a test protocol/notification to the Department for approval at least 30 days prior to test and a notice of intent to test at least 10 days prior to the scheduled test date. The Permittee shall submit the results of stack tests in a final report within 60 days from test completion. Analytical data shall be submitted to MDE-ARMA directly from the emission testing company. **[Reference: COMAR 26.11.01.04A]** 3. All air quality notifications and reports required by this CPCN shall be submitted to: Administrator, Compliance Program Air and Radiation Management Administration 1800 Washington Boulevard Baltimore, Maryland 21230 **[Reference: Case No. 9075, Section X condition 35]** 4. The Permittee shall report to the Department within 30 days after the end of each calendar quarter, any 3-hour block average estimated CO emission values calculated by the DAS in accordance with the O&M Plan that were greater than 0.2 pounds per mmBtu while the unit was burning primary fuel. **[Reference; COMAR 26.11.03.06C]** F. Control of VOC Emissions **Lowest Achievable Emission Rate (LAER) for Volatile Organic Compound (VOC)** See Reporting requirements for CO Emissions above; and The Permittee shall report to the Department within 30 days after the end of each calendar quarter, any 3-hour block average estimated VOC emission values calculated by the DAS in accordance with the O&M Plan that were greater than 0.0024 pounds per mmBtu while the unit was burning primary fuel. **[Reference: COMAR 26.1.03.06C and CPCN Case No. 9075, Section X. condition 30]** G. Control of HAPs Emissions **See Table IV-12 for MACT Requirements**

"A permit shield shall cover the applicable requirements identified for the emissions unit(s) listed in the table above."

Table IV – 1a: NSPS	
1a.0	**Emissions Unit Number(s): FSC-BS-Unit1 and FSC-BS-Unit2 (Cont'd)** **FSC-BS-Unit1 and FSC-BS-Unit2:** Two (2) solid fossil fuel fired generating units with No.2 oil used for start-up purposes. These Units are also capable of re-burning high carbon fly ash with the solid fuel/coal that has been recovered from the fly ash separation equipment on site. **[3-0015 & 3-0016]**
1a.1	**Applicable Standards/Limits:** A. Control of Visible Emissions **2. 40 CFR Part 60 Subpart D**—Standards of Performance for Fossil-Fuel-Fired Steam Generators (NSPS) Note: Units 1 and 2 have continuous emission monitors for particulate matter (PEMS). Subpart D allows such units to comply with the PM standard of **§60.42Da** which exempts an opacity standard. **§60.42Da** - Standards for particulate matter (PM). "(b) Except as provided in paragraphs (b)(1) and (b)(2) of this section, on and after the date the initial PM performance test is completed or required to be completed under §60.8, whichever date comes first, an owner or operator of an affected facility shall not cause to be discharged into the atmosphere any gases which exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. (1) An owner or operator of an affected facility that elects to install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for measuring PM emissions according to the requirements of this subpart is **exempt** from the opacity standard specified in this paragraph (b) of this section." B. Control of Particulate Matter Emissions **2. 40 CFR Part 60 Subpart D**—Standards of Performance for Fossil-Fuel-Fired Steam Generators (NSPS) **§60.42** - Standard for particulate matter (PM). "(a) Except as provided under paragraphs (b), (c), (d), and (e) of this section, on and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases that: (1) Contain PM in excess of 43 nanograms per joule (ng/J) heat input (0.10 lb/MMBtu) derived from fossil fuel or fossil fuel and wood residue." "(c) As an alternate to meeting the requirements of paragraph (a) of this

Table IV – 1a: NSPS	
	section, an owner or operator that elects to install, calibrate, maintain, and operate a continuous emissions monitoring systems (CEMS) for measuring PM emissions can petition the Administrator (in writing) to comply with §60.42Da(a) of subpart Da of this part. If the Administrator grants the petition, the source will from then on (unless the unit is modified or reconstructed in the future) have to comply with the requirements in §60.42Da(a) of subpart Da of this part." **§60.48Da** - Compliance provisions. "(a) For affected facilities for which construction, modification, or reconstruction commenced before May 4, 2011, the applicable PM emissions limit and opacity standard under §60.42Da, SO_2 emissions limit under §60.43Da, and NO_X emissions limit under §60.44Da apply at all times except during periods of startup, shutdown, or malfunction……." **§60.42Da -** Standards for particulate matter (PM). "(a) Except as provided in paragraph (f) of this section, on and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, an owner or operator of an affected facility shall not cause to be discharged into the atmosphere from any affected facility for which construction, reconstruction, or modification commenced before March 1, 2005, any gases that contain PM in excess of 13 ng/J (0.03 lb/MMBtu) heat input." C. Control of Sulfur Oxides Emissions **2. 40 CFR Part 60 Subpart D**—Standards of Performance for Fossil-Fuel-Fired Steam Generators (NSPS) **§60.43** - Standard for sulfur dioxide (SO_2). "(a) Except as provided under paragraph (d) of this section, on and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases that contain SO_2 in excess of: (1) 340 ng/J heat input (0.80 lb/MMBtu) derived from liquid fossil fuel or liquid fossil fuel and wood residue. (2) 520 ng/J heat input (1.2 lb/MMBtu) derived from solid fossil fuel or solid fossil fuel and wood residue, except as provided in paragraph (e) of this section." "(c) Compliance shall be based on the total heat input from all fossil fuels burned, including gaseous fuels. D. Control of Nitrogen Oxides Emissions **2. 40 CFR Part 60 Subpart D**—Standards of Performance for Fossil-Fuel-

Table IV – 1a: NSPS	
	Fired Steam Generators (NSPS) **§60.44** - Standard for nitrogen oxides (NO_X). "(**a**) Except as provided under paragraph (e) of this section, on and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases that contain NO_X, expressed as NO_2 in excess of: (2) 129 ng/J heat input (0.30 lb/MMBtu) derived from liquid fossil fuel, liquid fossil fuel and wood residue, or gaseous fossil fuel and wood residue. (3) 300 ng/J heat input (0.70 lb/MMBtu) derived from solid fossil fuel or solid fossil fuel and wood residue (except lignite or a solid fossil fuel containing 25 percent, by weight, or more of coal refuse)."
1a.2	**Testing Requirements:** A. Control of Visible Emissions See Particulate Matter Monitoring Requirements. B. Control of Particulate Matter Emissions **§60.49Da -** Emission monitoring. "(**v**) The owner or operator of an affected facility using a CEMS measuring PM emissions to meet requirements of this subpart shall install, certify, operate, and maintain the CEMS as specified in paragraphs (v)(1) through (v)(4) of this section. (1) The owner or operator shall conduct a performance evaluation of the CEMS according to the applicable requirements of §60.13, Performance Specification 11 in appendix B of this part, and procedure 2 in appendix F of this part. (2) During each PM correlation testing run of the CEMS required by Performance Specification 11 in appendix B of this part, PM and O_2 (or CO_2) data shall be collected concurrently (or within a 30- to 60-minute period) by both the CEMS and performance tests conducted using the following test methods. (i) For PM, Method 5 or 5B of appendix A-3 of this part or Method 17 of appendix A-6 of this part shall be used; and (ii) For O_2 (or CO_2), Method 3A or 3B of appendix A-2 of this part, as applicable shall be used. (3) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 2 in appendix F of this part. Relative Response Audit's must be performed annually and Response Correlation Audits must be performed every 3 years. (4) As of January 1, 2012, and within 90 days after the date of completing

Table IV – 1a: NSPS	
	each performance test, as defined in §60.8, conducted to demonstrate compliance with this subpart, you must submit relative accuracy test audit (*i.e.,*reference method) data and performance test (*i.e.,* compliance test) data, except opacity data, electronically to EPA's Central Data Exchange (CDX) by using the Electronic Reporting Tool (ERT) (see *http://www.epa.gov/ttn/chief/ert/ert tool.html/*) or other compatible electronic spreadsheet. Only data collected using test methods compatible with ERT are subject to this requirement to be submitted electronically into EPA's WebFire database." C. Control of Sulfur Oxides The Permittee shall perform quality control/ quality assurance procedures on the continuous emission monitoring system as established in 40 CFR Part 75, Appendix A. **[Reference: 40 CFR Part 75, Appendix A & COMAR 26.11.03.06C]**. D. Control of Nitrogen Oxides The Permittee shall perform quality control/ quality assurance procedures on the continuous emission monitoring system as established in 40 CFR Part 75, Appendix A. **[Reference: 40 CFR Part 75, Appendix A & COMAR 26.11.03.06C]**
1a.3	**Monitoring Requirements:** A. Control of Visible Emissions See Particulate Matter Monitoring Requirements. B. Control of Particulate Matter Emissions **§60.49Da -** Emission monitoring. "(s) The owner or operator shall prepare and submit to the Administrator for approval a unit-specific monitoring plan for each monitoring system, at least 45 days before commencing certification testing of the monitoring systems. The owner or operator shall comply with the requirements in your plan. The plan must address the requirements in paragraphs (s)(1) through (6) of this section. (1) Installation of the CEMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of the exhaust emissions (e.g., on or downstream of the last control device); (2) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems;

Table IV – 1a: NSPS	
	(3) Performance evaluation procedures and acceptance criteria (e.g., calibrations, relative accuracy test audits (RATA), etc.); (4) Ongoing operation and maintenance procedures in accordance with the general requirements of §60.13(d) or part 75 of this chapter (as applicable); (5) Ongoing data quality assurance procedures in accordance with the general requirements of §60.13 or part 75 of this chapter (as applicable); and (6) Ongoing recordkeeping and reporting procedures in accordance with the requirements of this subpart." C. Control of Sulfur Oxides **§60.45** - Emissions and fuel monitoring **(a)** "Each owner or operator of an affected facility subject to the applicable emissions standard shall install, calibrate, maintain, and operate continuous opacity monitoring system (COMS) for measuring opacity and a continuous emissions monitoring system (CEMS) for **measuring SO_2 emissions**, NO_X emissions, and either oxygen (O_2) or carbon dioxide (CO_2) except as provided in paragraph (b) of this section." D. Control of Nitrogen Oxides **§60.45** - Emissions and fuel monitoring **(a)** "Each owner or operator of an affected facility subject to the applicable emissions standard shall install, calibrate, maintain, and operate continuous opacity monitoring system (COMS) for measuring opacity and a continuous emissions monitoring system (CEMS) for **measuring** SO_2 emissions, **NO_X emissions**, and either oxygen (O_2) or carbon dioxide (CO_2) except as provided in paragraph (b) of this section."
1a.4	**Record Keeping Requirements:** **Note:** All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)]** A. Control of Visible Emissions See Particulate Matter Record Keeping Requirements. B. Control of Particulate Matter Emissions **§60.7**- Notification and record keeping "(**f**) Any owner or operator subject to the provisions of this part shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all

Table IV – 1a: NSPS	
	continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection." C. Control of Sulfur Oxides **§60.7**- Notification and record keeping "(**f**) Any owner or operator subject to the provisions of this part shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection." D. Control of Nitrogen Oxides **§60.7**- Notification and record keeping "(**f**) Any owner or operator subject to the provisions of this part shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection."
1a.5	**Reporting Requirements:** A. Control of Visible Emissions See Particulate Matter Reporting Requirements. B. Control of Particulate Matter Emissions **§60.45** - Emissions and fuel monitoring**.** "(g) Excess emission and monitoring system performance reports shall be submitted to the Administrator semiannually for each six-month period in the calendar year. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. Each excess emission and MSP report shall include the information required in §60.7(c). Periods of excess emissions and monitoring systems (MS) downtime that shall be reported are defined as follows:

Table IV – 1a: NSPS	
	(4) *Particulate matter.* Excess emissions for affected facilities using a CEMS for measuring PM are defined as any boiler operating day period during which the average emissions (arithmetic average of all operating one-hour periods) exceed the applicable standards in §60.42. Affected facilities using PM CEMS must follow the most current applicable compliance and monitoring provisions in §§60.48Da and 60.49Da of subpart Da of this part." C. Control of Sulfur Oxides **§60.45** - Emissions and fuel monitoring. "(**g**) Excess emission and monitoring system performance reports shall be submitted to the Administrator semiannually for each six-month period in the calendar year. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. Each excess emission and MSP report shall include the information required in §60.7(c). Periods of excess emissions and monitoring systems (MS) downtime that shall be reported are defined as follows: (2) *Sulfur dioxide.* Excess emissions for affected facilities are defined as: (i) For affected facilities electing not to comply with §60.43(d), any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) of SO_2 as measured by a CEMS exceed the applicable standard in §60.43; or (ii) For affected facilities electing to comply with §60.43(d), any 30 operating day period during which the average emissions (arithmetic average of all one-hour periods during the 30 operating days) of SO_2 as measured by a CEMS exceed the applicable standard in §60.43. Facilities complying with the 30-day SO_2 standard shall use the most current associated SO_2 compliance and monitoring requirements in §§60.48Da and 60.49Da of subpart Da of this part or §§60.45b and 60.47b of subpart Db of this part, as applicable." D. Control of Nitrogen Oxides **§60.45** - Emissions and fuel monitoring**.** "(**g**) Excess emission and monitoring system performance reports shall be submitted to the Administrator semiannually for each six-month period in the calendar year. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. Each excess emission and MSP report shall include the information required in §60.7(c). Periods of excess emissions and monitoring systems (MS) downtime that shall be reported are defined as follows: (3) *Nitrogen oxides.* Excess emissions for affected facilities using a CEMS for measuring NO_X are defined as: (i) For affected facilities electing not to comply with §60.44(e), any three-

Table IV – 1a: NSPS	
	hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) exceed the applicable standards in §60.44; or (ii) For affected facilities electing to comply with §60.44(e), any 30 operating day period during which the average emissions (arithmetic average of all one-hour periods during the 30 operating days) of NO_X as measured by a CEMS exceed the applicable standard in §60.44. Facilities complying with the 30-day NO_X standard shall use the most current associated NO_X compliance and monitoring requirements in §§60.48Da and 60.49Da of subpart Da of this part."

"A permit shield shall cover the applicable requirements identified for the emissions unit(s) listed in the table above."

Table IV – 2	
2.0	**<u>Emissions Unit Number(s): FSC-BS-AuxBlr1 and FSC-BS-AuxBlr2</u>** **FSC-BS-AuxBlr1 and FSC-BS-AuxBlr2:** Two (2) No. 2 oil-fired Auxiliary Boilers used for supplying steam to Brandon Shores Station**. [4-0507 & 4-0508]**
2.1	**<u>Applicable Standards/Limits</u>:** A. <u>Control of Visible Emissions</u> **COMAR 26.11.09.05A(2)** – <u>Fuel Burning Equipment</u> "Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity." **COMAR 26.11.09.05A(3) -** <u>Exceptions</u>. "Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, startup, or adjustments or occasional cleaning of control equipment if: (a) The visible emissions are not greater than 40 percent opacity; and The visible emissions do not occur for more than 6 consecutive minutes in any sixty minute period." B. <u>Control of Sulfur Oxides Emissions</u> **COMAR 26.11.09.07**: <u>Control of Sulfur Oxides From Fuel Burning Equipment.</u> "A. Sulfur Content Limitations for Fuel. A person may not burn, sell, or make

Table IV – 2	
	available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: (2) In Areas III and IV: (a) All solid fuels, 1.0 percent; **(b) Distillate fuel oils, 0.3 percent;** (c) Residual fuel oils, 1.0 percent." C. Control of Nitrogen Oxides Emissions **COMAR 26.11.09.08G** – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent. "A person who owns or operates fuel-burning equipment with a capacity factor (as defined in 40 CFR Part 72.2) of 15 percent or less shall: (a) Provide certification of the capacity factor of the equipment to the Department in writing; (b) For fuel-burning equipment that operates more than 500 hours during a calendar year, perform a combustion analysis and optimize combustion at least once annually; (c) Maintain the results of the combustion analysis and any stack tests at the site for at least 2 years and make these results available to the Department and the EPA upon request; (d) Require each operator of an installation, except combustion turbines, to attend operator training programs at least once every 3 years, on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and (e) Maintain a record of training program attendance for each operator at the site, and make these records available to the Department upon request." D. Control of HAPs Emissions: **See Table IV-2a-Boiler MACT Subpart DDDDD.**
2.2	**Testing Requirements:** A. Control of Visible Emissions See Monitoring Requirements. B. Control of Sulfur Oxides See Monitoring Requirements. C. Control of Nitrogen Oxides The Permittee shall perform a combustion analysis and optimize combustion at least once annually for any of the auxiliary boiler that

Table IV – 2	
	operates more than 500 hours during a calendar year. [**Reference: COMAR 26.11.09.08G(1)(b)]**
2.3	**Monitoring Requirements:** A. Control of Visible Emissions The Permittee shall verify that there are no visible emissions when burning No. 2 fuel oil. An observer shall perform an EPA Reference Method 9 observation of stack emissions for 18-minute period once every 168 block hours of operation on oil or at a minimum once per year. This requirement is waived if the total hours of operation of a boiler are less than a 100 hours in any calendar year. The Permittee shall perform the following, if emissions are visible to human observer: (a) inspect combustion control system and boiler operations, (b) perform all necessary adjustments and/or repairs to the boiler within 48 hours of operation so that visible emissions are eliminated; and (c) document in writing the results of inspections, adjustments and/or repairs to the auxiliary boiler. The Permittee shall after 48 hours of operation, if the required adjustments and/or repairs had not eliminated the visible emissions, perform a Method 9 observation once daily when the boiler is operating on No.2 fuel oil for an 18 minute period until corrective action have eliminated visible emissions. **[Reference: COMAR 26.11.03.06C]** B. Control of Sulfur Oxides The Permittee shall obtain fuel supplier certification which verify that the fuel oil is in compliance with the sulfur content in the fuel oil limitation or obtain sulfur in fuel analyses of oil that is representative of the oil burned. **[Reference: COMAR 26.11.03.06C].** C. Control of Nitrogen Oxides The Permittee shall calculate the capacity factor of the auxiliary boilers for each calendar year within 30 days after the end of each year. **[Reference: COMAR 26.11.03.06C].**
2.4	**Record Keeping Requirements:** **Note:** All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)]** A. Control of Visible Emissions The Permittee shall maintain records of all visible emissions observations for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C]**

Table IV – 2	
	B. Control of Sulfur Oxides The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with the sulfur content in the fuel limitation or the sulfur in fuel analyses must be maintained for at least 5 years. **[Reference: COMAR 26.11.09.07C].** C. Control of Nitrogen Oxides The Permittee shall maintain the following on site and make available to the Department upon request: • Records of the calculated capacity factors. • Records of hours of operation. • Records of the results of the combustion analyses performed if the hours of operation exceed 500. • Record of training program attendance for each operator. **[Reference: COMAR 26.11.02.19C(1)(b), COMAR 26.11.03.06C, COMAR 26.11.09.08G(1)(c), & COMAR 26.11.09.08G(1)(e)]**.
2.5	**Reporting Requirements:** A. Control of Visible Emissions The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4,Section III, Plant Wide Condition, "Report of Excess Emissions and Deviations" **[Reference: COMAR 26.11.03.06C]** B. Control of Sulfur Oxides The Permittee shall submit fuel supplier certification report or fuel analyses if requested by the Department. **[Reference: COMAR 26.11.09.07C].** C. Control of Nitrogen Oxides The Permittee shall provide certification of the capacity factor of the equipment to the Department with support documentation in Annual Emissions certification Report. **[Reference: COMAR 26.11.03.06C & COMAR 26.11.09.08G(1)(a)].** The Permittee shall submit a list of trained operators to the Department upon request. **[Reference: COMAR 26.11.09.08G(1)(e) and COMAR 26.11.03.06C].**

"A permit shield shall cover the applicable requirements identified for the emissions unit(s) listed in the table above."

Table IV – 2a – MACT Subpart DDDDD	
2a.0	**Emissions Unit Number(s): FSC-BS-AuxBlr1 and FSC-BS-AuxBlr2 (Cont'd)** **FSC-BS-AuxBlr1 and FSC-BS-AuxBlr2:** Two (2) No. 2 oil-fired Auxiliary Boilers used for supplying steam to Brandon Shores Station**. [4-0507 & 4-0508]**
2a.1	**Applicable Standards/Limits:** Control of HAPs Emissions **40 CFR Part 63, Subpart DDDDD—National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters** **§63.7485** - Am I subject to this subpart? You are subject to this subpart if you own or operate an industrial, commercial, or institutional boiler or process heater as defined in §63.7575 that is located at, or is part of, a major source of HAP, except as specified in §63.7491. For purposes of this subpart, a major source of HAP is as defined in §63.2, except that for oil and natural gas production facilities, a major source of HAP is as defined in §63.7575. **§63.7495** - When do I have to comply with this subpart? "(b) If you have an **existing boiler** or process heater, you must comply with this subpart no later than **January 31, 2016**, except as provided in §63.6(i)." "(d) You must meet the notification requirements in §63.7545 according to the schedule in §63.7545 and in subpart A of this part. Some of the notifications must be submitted before you are required to comply with the emission limits and work practice standards in this subpart." **§63.7500 -** What emission limitations, work practice standards, and operating limits must I meet? "(a) You must meet the requirements in paragraphs (a)(1) through (3) of this section, except as provided in paragraphs (b), through (e) of this section. You must meet these requirements at all times the affected unit is operating, except as provided in paragraph (f) of this section." "(c) Limited-use boilers and process heaters must complete a tune-up every 5 years as specified in §63.7540. They are not subject to the emission limits in Tables 1 and 2 or 11 through 13 to this subpart, the annual tune-up, or the energy assessment requirements in Table 3 to this subpart, or the operating limits in Table 4 to this subpart."

Table IV – 2a – MACT Subpart DDDDD	
	Limited-use boiler *or process heater* means any boiler or process heater that burns any amount of solid, liquid, or gaseous fuels and has a federally enforceable average annual capacity factor of no more than 10 percent. **[Reference: §63.7575]** Operational Limit In order to meet the definition of a "Limited–use boiler" under 40 CFR Part 63, Subpart DDDDD, the Permittee shall limit the annual capacity factor, as defined in §63.7575**,** for **FSC-BS-AuxBlr1 and FSC-BS-AuxBlr2** to no more than 10 percent.
2a.2	**Testing Requirements:** Control of HAPs Emissions **§63.7510 -** What are my initial compliance requirements and by what date must I conduct them? "(e) For existing affected sources (as defined in §63.7490), you must complete the initial compliance demonstration, as specified in paragraphs (a) through (d) of this section, no later than 180 days after the compliance date that is specified for your source in §63.7495 and according to the applicable provisions in §63.7(a)(2) as cited in Table 10 to this subpart, except as specified in paragraph (j) of this section. You must complete an initial tune-up by following the procedures described in §63.7540(a)(10)(i) through (vi) no later than the compliance date specified in §63.7495, except as specified in paragraph (j) of this section. You must complete the one-time energy assessment specified in Table 3 to this subpart no later than the compliance date specified in §63.7495. **Note:** Limited use boilers are exempt from the energy assessment requirement. **§63.7515 -** When must I conduct subsequent performance tests, fuel analyses, or tune-ups? "(d) If you are required to meet an applicable tune-up work practice standard, you must conduct an annual, biennial, or 5-year performance tune-up according to §63.7540(a)(10), (11), or (12), respectively. Each annual tune-up specified in §63.7540(a)(10) must be no more than 13 months after the previous tune-up. Each biennial tune-up specified in §63.7540(a)(11) must be conducted no more than 25 months after the previous tune-up. Each 5-year tune-up specified in §63.7540(a)(12) must be conducted no more than 61 months after the previous tune-up. For a new or reconstructed affected source (as defined in §63.7490), the first annual, biennial, or 5-year tune-up must be no later than 13 months, 25 months, or 61 months, respectively, after the initial startup of the new or reconstructed affected source."

Table IV – 2a – MACT Subpart DDDDD	
2a.3	**Monitoring Requirements:** Control of HAPs Emissions **§63.7530 -** How do I demonstrate initial compliance with the emission limitations, fuel specifications and work practice standards? "(f) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.7545(e)." **Continuous Compliance Requirements** **§63.7540 -** How do I demonstrate continuous compliance with the emission limitations, fuel specifications and work practice standards? "(a) You must demonstrate continuous compliance with each emission limit in Tables 1 and 2 or 11 through 13 to this subpart, the work practice standards in Table 3 to this subpart, and the operating limits in Table 4 to this subpart that applies to you according to the methods specified in Table 8 to this subpart and paragraphs (a)(1) through (19) of this section." "(10) If your boiler or process heater has a heat input capacity of 10 million Btu per hour or greater, you must conduct an annual tune-up of the boiler or process heater to demonstrate continuous compliance as specified in paragraphs (a)(10)(i) through (vi) of this section. You must conduct the tune-up while burning the type of fuel (or fuels in case of units that routinely burn a mixture) that provided the majority of the heat input to the boiler or process heater over the 12 months prior to the tune-up. **This frequency does not apply to limited-use boilers** and process heaters, as defined in §63.7575, or units with continuous oxygen trim systems that maintain an optimum air to fuel ratio. (i) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. 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

Table IV – 2a – MACT Subpart DDDDD	
	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, if available, and with any NO_X requirement to which the unit is subject; (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 (vi) Maintain on-site and submit, if requested by the Administrator, report containing the information in paragraphs (a)(10)(vi)(A) through (C) of this section, (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; (B) A description of any corrective actions taken as a part of the tune-up; and (C) The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit."
2a.4	**Record Keeping Requirements:** **Note:** All records must be maintained for a period of 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)]** Control of HAPs Emissions **Notification, Reports, and Records** **§63.7555 -** What records must I keep? "(a) You must keep records according to paragraphs (a)(1) and (2) of this section. (1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted, according to the requirements in §63.10(b)(2)(xiv). (2) Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in §63.10(b)(2)(viii). (3) For units in the limited use subcategory, you must keep a copy of the federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent and fuel use records for the days the boiler or process heater was operating."

Table IV – 2a – MACT Subpart DDDDD	
	§63.7560 - In what form and how long must I keep my records? "(a) Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1). (b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. (c) You must keep each record on site, or they must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). You can keep the records off site for the remaining 3 years."
2a.5	**Reporting Requirements:** Control of HAPs Emissions **Notification, Reports, and Records** **§63.7545 -** What notifications must I submit and when? "(a) You must submit to the Administrator all of the notifications in §§63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to you by the dates specified. "(e) If you are required to conduct an initial compliance demonstration as specified in §63.7530, you must submit a Notification of Compliance Status according to §63.9(h)(2)(ii). For the initial compliance demonstration for each boiler or process heater, you must submit the Notification of Compliance Status, including all performance test results and fuel analyses, before the close of business on the 60th day following the completion of all performance test and/or other initial compliance demonstrations for all boiler or process heaters at the facility according to §63.10(d)(2). The Notification of Compliance Status report must contain all the information specified in paragraphs (e)(1) through (8), as applicable. If you are not required to conduct an initial compliance demonstration as specified in §63.7530(a), the Notification of Compliance Status must only contain the information specified in paragraphs (e)(1) and (**8**) and must be submitted within 60 days of the compliance date specified at §63.7495(b)." "(**8**) In addition to the information required in §63.9(h)(2), your notification of compliance status must include the following certification(s) of compliance, as applicable, and signed by a responsible official: (i) "This facility completed the required initial tune-up for all of the boilers and process heaters covered by 40 CFR part 63 subpart DDDDD at this site according to the procedures in §63.7540(a)(10)(i) through (vi)."

Table IV – 2a – MACT Subpart DDDDD

§63.7550 - What reports must I submit and when?

"(a) You must submit each report in Table 9 to this subpart that applies to you.

You must submit a(n)	The report must contain	You must submit the report
1. Compliance report	**a. Information required in §63.7550(c)(1) through (5); and**	Semiannually, annually, biennially, or **every 5 years according to the requirements in §63.7550(b).**

(b) Unless the EPA Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report, according to paragraph (h) of this section, by the date in Table 9 to this subpart and according to the requirements in paragraphs (b)(1) through (4) of this section. **For units that are subject only to a requirement to conduct an annual, biennial, or 5-year tune-up according to §63.7540(a)(10)**, (11), or (12), respectively, and **not subject to emission limits or Table 4 operating limits, you may submit only an annual, biennial, or 5-year compliance report, as applicable, as specified in paragraphs (b)(1) through (4) of this section, instead of a semi-annual compliance report**.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in §63.7495 and ending on June 30 or December 31, whichever date is the first date that occurs at least 180 days after the compliance date that is specified for your source in §63.7495. If submitting an annual, biennial, or 5-year compliance report, the first compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in §63.7495 and ending on December 31 within 1, 2, or 5 years, as applicable, after the compliance date that is specified for your source in §63.7495.

(2) The first semi-annual compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for each boiler or process heater in §63.7495. The first annual, biennial, or 5-year compliance report must be postmarked or submitted no later than January 31.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. **Annual, biennial, and 5-year compliance reports must cover the applicable 1-, 2-, or 5-year periods from January 1 to December 31.**

Table IV – 2a – MACT Subpart DDDDD	
	(4) Each subsequent compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period. **Annual, biennial, and 5-year compliance reports must be postmarked or submitted no later than January 31.** (c) A compliance report must contain the following information depending on how the facility chooses to comply with the limits set in this rule. (1) If the facility is subject to the requirements of a tune up they must submit a compliance report with the information in paragraphs (c)(5)(i) through (iii) of this section,(xiv) and (xvii) of this section, and paragraph (c)(5)(iv) of this section for limited-use boiler or process heater. "(5)(i) Company and Facility name and address. (ii) Process unit information, emissions limitations, and operating parameter limitations. (iii) Date of report and beginning and ending dates of the reporting period. (iv) The total operating time during the reporting period." "(xiv) Include the date of the most recent tune-up for each unit subject to only the requirement to conduct an annual, biennial, **or 5-year tune-up** according to §63.7540(a)(10), (11), or (12) respectively. Include the date of the most recent burner inspection if it was not done annually, biennially, or on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown." "(h) You must submit the reports according to the procedures specified in paragraphs (h)(1) through (3) of this section." "(3) You must submit all reports required by Table 9 of this subpart electronically to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX). You must use the appropriate electronic report in CEDRI for this subpart. Instead of using the electronic report in CEDRI for this subpart, you may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (http://www.epa.gov/ttn/chief/cedri/index.html), once the XML schema is available. If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, you must submit the report to the Administrator at the appropriate address listed in §63.13. You must begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI."

"A permit shield shall cover the applicable requirements identified for the emissions unit(s) listed in the table above."

Table IV – 3	
3.0	**Emissions Unit Number(s): FSC-BS-MH** The Brandon Shores material handling system consists of various equipment and processes to transport coal, fly ash, hydrated lime or equivalent, powdered activated carbon and other materials. There are facilities to mix coal with additives to reduce stack emissions. Equipment and processes may include unloading scoops, transfer point, storage piles, silos, bin vents, and other material handling equipment**. [6-1143]**
3.1	**Applicable Standards/Limits:** A. Control of Visible Emissions **COMAR 26.11.06.02C**. - Visible Emission Standards. "(**2**) In Areas III and IV a person may not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is visible to human observers." **COMAR 26.11.06.02A(2)** "The visible emissions standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if: (a) The visible emissions are not greater than 40 percent opacity; and (b) The visible emissions do not occur for more than 6 consecutive minutes in any 60 minute period." **Note**: *The VE limit applies only to confined sources which include coal and fly ash storage silos.* B. Control of Particulate Matter Emissions **1. COMAR 26.11.06.03B**. - Particulate Matter from Confined Sources. "(**2**) Areas III and IV. (**a**) A person may not cause or permit to be discharged into the outdoor atmosphere from any other installation, particulate matter in excess of 0.03 gr/SCFD (68.7 mg/dscm)." **2. COMAR 26.11.06.03 C** - Particulate Matter from Unconfined Sources. (1) A person may not cause or permit emissions from an unconfined source without taking reasonable precautions to prevent particulate matter from becoming airborne. These reasonable precautions shall include, when appropriate as determined by the Department, the installation and use of hoods, fans, and dust collectors to enclose, capture, and vent emissions. In making this determination, the Department shall consider technological feasibility, practicality, economic impact, and the environmental consequences of the decision.

Table IV – 3	
	3. COMAR 26.11.06.03D - Particulate Matter from Materials Handling and Construction. A person may not cause or permit any material to be handled, transported, or stored, or a building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. **C. 40 CFR Part 60, Subpart Y—Standards of Performance for Coal Preparation and Processing Plants** **§60.254** - Standards for coal processing and conveying equipment, coal storage systems, transfer and loading systems, and open storage piles. "(b) On and after the date on which the performance test is conducted or required to be completed under §60.8, whichever date comes first, an owner or operator of any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, reconstructed, or modified after April 28, 2008, must meet the requirements in paragraphs (b)(1) through (3) of this section, as applicable to the affected facility. (1) Except as provided in paragraph (b)(3) of this section, the owner or operator must not cause to be discharged into the atmosphere from the affected facility any gases which exhibit 10 percent opacity or greater. (2) The owner or operator must not cause to be discharged into the atmosphere from any mechanical vent on an affected facility gases which contain particulate matter in excess of 0.023 g/dscm (0.010 gr/dscf). (3) Equipment used in the loading, unloading, and conveying operations of open storage piles are not subject to the opacity limitations of paragraph (b)(1) of this section." **Note:** *This limit only applies to the four (4) new coal conveyors that transport coal to and from the new additive mixing facility.*
3.2	**Testing Requirements:** A. Control of Visible Emissions See Monitoring Requirements. B. Control of Particulate Matter Emissions **1, 2 and 3 - COMAR** See Monitoring Requirement. C. NSPS: **§60.255** - Performance tests and other compliance requirements. "(**b**) An owner or operator of each affected facility that commenced

Table IV – 3	
	construction, reconstruction, or modification after April 28, 2008, must conduct performance tests according to the requirements of §60.8 and the methods identified in §60.257 to demonstrate compliance with the applicable emissions standards in this subpart as specified in paragraphs (b)(1) and (2) of this section. (2) For each affected facility subject to an opacity standard, an initial performance test must be performed. Thereafter, a new performance test must be conducted according to the requirements in paragraphs (b)(2)(i) through (iii) of this section, as applicable, except as provided for in paragraphs (e) and (f) of this section. Performance test and other compliance requirements for coal truck dump operations are specified in paragraph (h) of this section. (i) If any 6-minute average opacity reading in the most recent performance test exceeds half the applicable opacity limit, a new performance test must be conducted within 90 operating days of the date that the previous performance test was required to be completed. (ii) If all 6-minute average opacity readings in the most recent performance test are equal to or less than half the applicable opacity limit, a new performance test must be conducted within 12 calendar months of the date that the previous performance test was required to be completed. (iii) An owner or operator of an affected facility continuously monitoring scrubber parameters as specified in §60.256(b)(2) is exempt from the requirements in paragraphs (b)(2)(i) and (ii) if opacity performance tests are conducted concurrently with (or within a 60-minute period of) PM performance tests." "(**c**) If any affected coal processing and conveying equipment (*e.g.,* breakers, crushers, screens, conveying systems), coal storage systems, or coal transfer and loading systems that commenced construction, reconstruction, or modification after April 28, 2008, are enclosed in a building, and emissions from the building do not exceed any of the standards in §60.254 that apply to the affected facility, then the facility shall be deemed to be in compliance with such standards."
3.3	**<u>Monitoring Requirements</u>**: A. <u>Control of Visible Emissions</u> The Permittee shall prepare and maintain a plan that contains an explanation of the reasonable precautions or best management practices (BMP) Plan that will be used to prevent particulate matter from becoming airborne. The Permittee shall perform a monthly inspection of the operation to verify that the reasonable precautions (BMPs) are being implemented. During

Table IV – 3	
	the monthly inspection, the Permittee shall perform a visual observation for a minute period of the emissions points of the limestone and gypsum handling systems to determine whether particulate matter is becoming airborne and if additional precautions are needed. The monthly inspection shall be performed at a time that the ash handling and solid fossil fuel handling systems are transferring material. [**Reference: COMAR 26.11.03.06C**] B. Control of Particulate Matter Emissions **1, 2 and 3 COMAR**: The Permittee shall prepare and maintain a plan that contains an explanation of the reasonable precautions or best management practices (BMP) Plan that will be used to prevent particulate matter from becoming airborne. The Permittee shall update Brandon Shores Best Management Practices (BMP) Plan, as required by the initial Part 70 permit for this facility when a revision is needed to ensure that reasonable precautions will be used to prevent particulate matter from this equipment from becoming airborne and that adequate inspection will be conducted and documented. The BMP shall include provisions for routine inspections of emission sources and controls, corrective measures, and recordkeeping for such. The Permittee shall perform a monthly inspection of the operation to verify that the reasonable precautions (BMPs) are being implemented. During the monthly inspection, the Permittee shall perform a visual observation for a minute period of the emissions points of the limestone and gypsum handling systems to determine whether particulate matter is becoming airborne and if additional precautions are needed. The monthly inspection shall be performed at a time that the ash handling and solid fossil fuel handling systems are transferring material. **[Reference: COMAR 26.11.03.06C.]** C. NSPS See Record Keeping Requirements.
3.4	**Record Keeping Requirements:** A. Control of Visible Emissions The Permittee shall keep the results of the monthly inspections for a period of five (5) years. The Permittee shall maintain the written reasonable precautions (BMP) at the facility and make it available to the Department upon request.

Table IV – 3	
	[Reference: COMAR 26.11.03.06C] B. Control of Particulate Matter Emissions **1, 2 and 3 COMAR**: The Permittee shall keep the results of the monthly inspections for a period of five (5) years. The Permittee shall maintain the written reasonable precautions (BMP) at the facility and make it available to the Department upon request. **[Reference: COMAR 26.11.03.06C]** C. NSPS **§60.258** - Reporting and **Recordkeeping**. "(**a**) The owner or operator of a coal preparation and processing plant that commenced construction, reconstruction, or modification after April 28, 2008, shall maintain in a logbook (written or electronic) on-site and make it available upon request. The logbook shall record the following: (1) The manufacturer's recommended maintenance procedures and the date and time of any maintenance and inspection activities and the results of those activities. Any variance from manufacturer recommendation, if any, shall be noted. (2) The date and time of periodic coal preparation and processing plant visual observations, noting those sources with visible emissions along with corrective actions taken to reduce visible emissions. Results from the actions shall be noted. (3) The amount and type of coal processed each calendar month. (4) The amount of chemical stabilizer or water purchased for use in the coal preparation and processing plant. (5) Monthly certification that the dust suppressant systems were operational when any coal was processed and that manufacturer's recommendations were followed for all control systems. Any variance from the manufacturer's recommendations, if any, shall be noted. (6) Monthly certification that the fugitive coal dust emissions control plan was implemented as described. Any variance from the plan, if any, shall be noted. A copy of the applicable fugitive coal dust emissions control plan and any letters from the Administrator providing approval of any alternative control measures shall be maintained with the logbook. Any actions, e.g., objections, to the plan and any actions relative to the alternative control measures, e.g., approvals, shall be noted in the logbook as well.
3.5	**Reporting Requirements:** A. Control of Visible Emissions The Permittee shall report the results of the inspections and/or testing and provide a copy of the current BMP plan upon request by the Department.

Table IV – 3	
	[Reference: COMAR 26.11.03.06C] B. Control of Particulate Matter Emissions **1, 2 and 3 COMAR:** The Permittee shall report the results of the inspections and/or testing and provide a copy of the current BMP plan upon request by the Department. **[Reference: COMAR 26.11.03.06C]** C. NSPS **§60.258** - **Reporting** and recordkeeping "(**b**) For the purpose of reports required under section 60.7(c), any owner operator subject to the provisions of this subpart also shall report semiannually periods of excess emissions as follow: (3) All 6-minute average opacities that exceed the applicable standard." "(**d**) After July 1, 2011, within 60 days after the date of completing each performance evaluation conducted to demonstrate compliance with this subpart, the owner or operator of the affected facility must submit the test data to EPA by successfully entering the data electronically into EPA's WebFIRE data base available at *http://cfpub.epa.gov/oarweb/index.cfm?action=fire.main.* For performance tests that cannot be entered into WebFIRE (*i.e.,* Method 9 of appendix A-4 of this part opacity performance tests) the owner or operator of the affected facility must mail a summary copy to United States Environmental Protection Agency; Energy Strategies Group; 109 TW Alexander DR; mail code: D243-01; RTP, NC 27711."

"A permit shield shall cover the applicable requirements identified for the emissions unit(s) listed in the table above."

Table IV – 4	
4.0	**Emissions Unit Number(s): FSC-BS-LSH and FSC-BS-GH** **FSC-BS-LSH**: The Brandon Shores limestone handling system consists of various equipment and processes to handle limestone. Equipment and processes may include unloading scoops, transfer point, storage piles, silos, bin vents, and other material handling equipment. **[6-1149]** **FSC-BS-GH**: The Brandon Shores gypsum handling system consists of various equipment and processes to handle gypsum. Equipment and processes may include unloading scoops, transfer point, storage piles, silos, bin vents, and other material handling equipment. **[6-1150]**

Table IV – 4

4.1 **Applicable Standards/Limits:**

Control of Particulate Matter Emissions

1. COMAR 26.11.06.03C - Particulate Matter from Unconfined Sources.

(1) A person may not cause or permit emissions from an unconfined source without taking reasonable precautions to prevent particulate matter from becoming airborne. These reasonable precautions shall include, when appropriate as determined by the Department, the installation and use of hoods, fans, and dust collectors to enclose, capture, and vent emissions. In making this determination, the Department shall consider technological feasibility, practicality, economic impact, and the environmental consequences of the decision.

2. COMAR 26.11.06.03D - Particulate Matter from Materials Handling and Construction.

A person may not cause or permit any material to be handled, transported, or stored, or a building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne.

For FSC-BS-LSH only

3. 40 CFR Part 60, Subpart OOO—Standards of Performance for Nonmetallic Mineral Processing Plants

§60.672 - Standard for particulate matter (PM).

"(b) Affected facilities must meet the fugitive emission limits and compliance requirements in Table 3 of this subpart within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11. The requirements in Table 3 of this subpart apply for fugitive emissions from affected facilities without capture systems and for fugitive emissions escaping capture systems."

Table 3 to Subpart OOO of Part 60—Fugitive Emission Limits

For	The owner or operator must meet the following fugitive emissions limit for grinding mills, screening operations, bucket elevators, transfer points on belt conveyors, bagging operations, storage bins, enclosed truck or railcar loading stations or from any other affected facility (as defined	The owner or operator must meet the following fugitive emissions limit for crushers at which a capture system is not used	The owner or operator must demonstrate compliance with these limits by conducting

Table IV – 4

	in §§60.670 and 60.671)		
Affected facilities (as defined in §§60.670 and 60.671) that commenced construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008	10 percent opacity	15 percent opacity	An initial performance test according to §60.11 of this part and §60.675 of this subpart.

"(**e**) If any transfer point on a conveyor belt or any other affected facility is enclosed in a building, then each enclosed affected facility must comply with the emission limits in paragraphs (a) and (b) of this section, or the building enclosing the affected facility or facilities must comply with the following emission limits:
(1) Fugitive emissions from the building openings (except for vents as defined in §60.671) must not exceed 7 percent opacity; and
(2) Vents (as defined in §60.671) in the building must meet the applicable stack emission limits and compliance requirements in Table 2 of this subpart."

Table 2 to Subpart OOO of Part 60—Stack Emission Limits for Affected Facilities With Capture Systems

For	The owner or operator must meet a PM limit of	And the owner or operator must meet an opacity limit of	The owner or operator must demonstrate compliance with these limits by conducting
Affected facilities (as defined in §§60.670 and 60.671) that commenced construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008	0.05 g/dscm (0.022 gr/dscf)[a]	7 percent for dry control devices[b]	An initial performance test according to §60.8 of this part and §60.675 of this subpart; 676(c), (d), and (e).

4.2 **<u>Testing Requirements</u>:**

<u>Control of Particulate Matter Emissions</u>
1 and 2 - COMAR
See Monitoring Requirement.

Table IV – 4	
	For FSC-BS-LSH only **3. NSPS**: **§60.675** - Test methods and procedures. "(a) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendices A-1 through A-7 of this part or other methods and procedures as specified in this section, except as provided in §60.8(b). Acceptable alternative methods and procedures are given in paragraph (e) of this section."
4.3	**Monitoring Requirements**: Control of Particulate Matter Emissions **1 and 2 COMAR**: The Permittee shall prepare and maintain a plan that contains an explanation of the reasonable precautions or best management practices (BMP) Plan that will be used to prevent particulate matter from becoming airborne. The Permittee shall update Brandon Shores Best Management Practices (BMP) Plan, as required by the initial Part 70 permit for this facility when a revision is needed to ensure that reasonable precautions will be used to prevent particulate matter from this equipment from becoming airborne and that adequate inspection will be conducted and documented. The BMP shall include provisions for routine inspections of emission sources and controls, corrective measures, and recordkeeping for such. The Permittee shall perform a monthly inspection of the operation to verify that the reasonable precautions (BMPs) are being implemented. During the monthly inspection, the Permittee shall perform a visual observation for a minute period of the emissions points of the limestone and gypsum handling systems to determine whether particulate matter is becoming airborne and if additional precautions are needed. The monthly inspection shall be performed at a time that the ash handling and solid fossil fuel handling systems are transferring material. **[Reference: COMAR 26.11.03.06C.]** **For FSC-BS-LSH only** **3. NSPS** **§60.674** - Monitoring of operations. "(b) The owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses wet suppression to control emissions from the affected facility must

Table IV – 4	
	perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The owner or operator must initiate corrective action within 24 hours and complete corrective action as expediently as practical if the owner or operator finds that water is not flowing properly during an inspection of the water spray nozzles. The owner or operator must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, in the logbook required under §60.676(b). (1) If an affected facility relies on water carryover from upstream water sprays to control fugitive emissions, then that affected facility is exempt from the 5-year repeat testing requirement specified in Table 3 of this subpart provided that the affected facility meets the criteria in paragraphs (b)(1)(i) and (ii) of this section: (i) The owner or operator of the affected facility conducts periodic inspections of the upstream water spray(s) that are responsible for controlling fugitive emissions from the affected facility. These inspections are conducted according to paragraph (b) of this section and §60.676(b), and (ii) The owner or operator of the affected facility designates which upstream water spray(s) will be periodically inspected at the time of the initial performance test required under §60.11 of this part and §60.675 of this subpart. (2) If an affected facility that routinely uses wet suppression water sprays ceases operation of the water sprays or is using a control mechanism to reduce fugitive emissions other than water sprays during the monthly inspection (for example, water from recent rainfall), the logbook entry required under §60.676(b) must specify the control mechanism being used instead of the water sprays.”
4.4	**Record Keeping Requirements:** Control of Particulate Matter Emissions **1 and 2 COMAR**: The Permittee shall keep the results of the monthly inspections for a period of five (5) years. The Permittee shall maintain the written reasonable precautions (BMP) at the facility and make it available to the Department upon request. **[Reference: COMAR 26.11.03.06C]** **For FSC-BS-LSH only** **3. NSPS** **§60.676** - **Reporting** and recordkeeping. “(**b**)(1) Owners or operators of affected facilities (as defined in §§60.670 and 60.671) for which construction, modification, or reconstruction

Table IV – 4	
	commenced on or after April 22, 2008, must record each periodic inspection required under §60.674(b) or (c), including dates and any corrective actions taken, in a logbook (in written or electronic format). The owner or operator must keep the logbook onsite and make hard or electronic copies (whichever is requested) of the logbook available to the Administrator upon request."
4.5	**Reporting Requirements:** Control of Particulate Matter Emissions **1 and 2 COMAR:** The Permittee shall report the results of the inspections and/or testing and provide a copy of the current BMP plan upon request by the Department. **[Reference: COMAR 26.11.03.06C]** **For FSC-BS-LSH only** **3. NSPS** **§60.674** - **Reporting** and recordkeeping "(**f**) The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in §60.672 of this subpart, including reports of opacity observations made using Method 9 (40 CFR part 60, Appendix A-4) to demonstrate compliance with §60.672(b), (e) and (f)." All notifications and reports required by applicable subparts of 40 CFR 60 unless specified otherwise, shall be submitted to: Administrator, Compliance Program Air and Radiation Management Administration 1800 Washington Boulevard Baltimore, MD 21230 and Director, Air Protection Division U.S. EPA – Region III Mail Code 3AP00 1650 Arch Street Philadelphia, PA 19103-2029.

"A permit shield shall cover the applicable requirements identified for the emissions unit(s) listed in the table above."

Table IV – 5	
5.0	**Emissions Unit Number(s): FSC-BS-QP** **FSC-BS-QP**: The Quench Pumps are two (2) 500 HP diesel-fired internal combustion engines that are used to supply water to the flue gas desulfurization (FGD) system in case of emergencies. **[9-0988]**
5.1	**Applicable Standards/Limits:** A. Control of Visible Emissions **1. COMAR 26.11.09.05E(2),** Emission During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance. **COMAR 26.11.09.05E(3),** Emission During Operating Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity." This requirement is not applicable during Preventative Maintenance. Exceptions. **COMAR 26.11.09.05E(4)** "(a) Section E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing exhaust system. (b) Section E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods: (i) Engines that are idled continuously when not in service: 30 minutes; (ii) All other engines: 15 minutes. (c) Section E(2) and E(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics." **2. 40 CFR Part 60 Subpart IIII** - Standards of Performance (NSPS) for Stationary Compression Ignition (CI) Internal Combustion Engines (ICE). **§89.113** - Smoke emission standard. (a) Exhaust opacity from compression- ignition non-road engines for which this subpart is applicable must not exceed: (1) 20 percent during the acceleration mode; (2) 15 percent during the lugging mode; and (3) 50 percent during the peaks in either the acceleration or lugging modes. B. Control of Particulate Matter Emissions NSPS Subpart IIII **§60.4205b** - What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine? "(b) Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder must comply with the emission standards for new non-road CI engines in **§60.4202,**for all pollutants, for the same model year and maximum engine

Table IV – 5	
	power for their 2007 model year and later emergency stationary CI ICE.". C. Control of Sulfur Oxides Emissions **COMAR 26.11.09.07A(2)** – Control of Sulfur Oxides from fuel burning equipment. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV: (a) All solid fuels, 1.0 percent; (b) **Distillate fuel oils, 0.3 percent;** (c) Residual fuel oils, 1.0 percent. " **§60.4207** - What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?" **"(a)** Beginning October 1, 2007, owners and operators of stationary CI ICE subject to this subpart that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(a). **(b)** Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for non-road diesel fuel." D. Control of Nitrogen Oxides Emissions **COMAR 26.11.09.08G** – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent. (1) "A person who owns or operates fuel-burning equipment with a capacity factor (as defined in 40 CFR Part 72.2) of 15 percent or less shall: (a) Provide certification of the capacity factor of the equipment to the Department in writing; (b) For fuel-burning equipment that operates more than 500 hours during a calendar year, perform a combustion analysis and optimize combustion at least once annually; (c) Maintain the results of the combustion analysis and any stack tests at the site for at least 2 years and make these results available to the Department and the EPA upon request; (d) Require each operator of an installation, except combustion turbines, to attend operator training programs at least once every 3 years, on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and (e) Maintain a record of training program attendance for each operator at the site, and make these records available to the Department upon request."

Table IV – 5	
	NSPS Subpart IIII **§60.4205b** - What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine? "(b) Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder must comply with the emission standards for new non-road CI engines in §60.4202,for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.". E. Control of VOC Emissions "To meet LAER for the two nominal 500-horsepower diesel-fired quench pumps, the Permittee shall install units designed so the emissions of volatile organic compounds (VOCs) from each of the two units shall not exceed the Tier III limits (2008) standards in g/hp-hr." **[Reference: CPCN 9075 Section VI condition 20]** F. Control of Carbon Monoxide Emissions 1 BACT Requirement "To meet the BACT for CO from the two nominal 500-horsepower diesel-fired quench pumps, the Permittee shall install engines designed so that emissions of carbon monoxide (CO) from each of the two units shall not exceed the Tier III limits (2008) standards in grams per horsepower-hour (G-hp-hr)." **[Reference: CPCN 9075 Section V condition 17c]** 2 NSPS Subpart IIII **§60.4205b** What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine? "(b) Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder must comply with the emission standards for new non-road CI engines in **§60.4202,**for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.". G. Control of Hazardous Air Pollutants (HAPS) Emissions **40CFR 63 Subpart ZZZZ—**National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines "**§63.6590** - What parts of my plant does this subpart cover? This subpart applies to each affected source. (c) Stationary RICE subject to Regulations under 40 CFR Part 60. An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of **40 CFR part 60 subpart IIII**, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for

Table IV – 5	
	spark ignition engines. *No further requirements apply for such engines under this part*. (6) A new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions." H. NSPS subpart IIII Operational limitations **§60.4209(a)** - <u>What are the monitoring requirements if I am an owner or operator of a stationary combustion engine?</u> "(a) If you are an owner or operator of an emergency stationary CI internal combustion engine, you must install a non-resettable hour meter prior to startup of the engine." **§60.4206** - <u>How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?</u> "Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§60.4204 and **60.4205** according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine." **§60.4211(a) and (e) -** <u>What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?</u> "(a) If you are an owner or operator and must comply with the emission standards specified in this subpart, you must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. In addition, owners and operators may only change those settings that are permitted by the manufacturer. You must also meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you." "(e) Owners or operators may operate the stationary CI ICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing shall be limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. Anyone may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local government standards require maintenance and testing of emergency ICE beyond 100 hours per

Table IV – 5	
	year. Any operation other than emergency operation, and maintenance and testing, is prohibited.
5.2	**Testing Requirements:** A. Control of Visible Emissions 1. & 2. See Monitoring Requirements. B. Control of Particulate Matter Emissions **NSPS: 40 CFR 60 – Subpart IIII** See Monitoring Requirements. C. Control of Sulfur Oxides Emissions 1. & 2. See Monitoring Requirements D. Control of Nitrogen Oxides Emissions 1 NO_X RACT The Permittee shall perform a combustion analysis and optimize combustion at least once annually when the hours of operation exceed 500 during the year. **[Reference: COMAR 26.11.09.08G(1)(b)]** 2 NSPS See Monitoring Requirements. E. Control of VOC Emissions Comply with Tier III requirements. F. Control of Carbon Monoxide Emissions Comply with Tier III requirements G. Control of Hazardous Air Pollutants (HAPS) Emissions Comply with NSPS Subpart IIII requirements **[Reference: §63.6590(c)]** H. NSPS subpart IIII Operational limitations See Record Keeping Requirements.
5.3	**Monitoring Requirements:** A. Control of Visible Emissions 1 The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions. **[Reference: COMAR 26.11.03.06C]**

Table IV – 5	
	2- The Permittee must operate and maintain the stationary CI internal combustion engine according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. **[Reference**: **§60.4211(a)]** B. Control of Particulate Matter Emissions **NSPS: 40 CFR 60 – Subpart IIII** See operational limitations in Section 5.4H C. Control of Sulfur Oxides Emissions 1 SO_2 RACT The Permittee shall obtain a certification from the fuel supplier indicating that the fuel oil is in compliance with the limitation on the sulfur content of the fuel oil or obtain sulfur in fuel analyses of oil that is representative of the oil burned. **[Reference: COMAR 26.11.03.06C]** 2. NSPS: 40 CFR 60 – Subpart IIII Comply with Tier III requirements. D. Control of Nitrogen Oxides Emissions 1 NO_X RACT The Permittee shall calculate the capacity factor of the engines for each calendar year within 30 days after the end of each year. **[Reference: COMAR 26.11.03.06C]** 2 NSPS The Permittee must operate and maintain the stationary CI internal combustion engine according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. **[Reference**: **§60.4211(a)]** E. Control of VOC Emissions Comply with Tier III requirements F. Control of Carbon Monoxide Emissions Comply with Tier III requirements G. Control of Hazardous Air Pollutants (HAPS) Emissions Comply with NSPS Subpart IIII requirements **[Reference: §63.6590(c)]** H. NSPS subpart IIII Operational limitations See Record Keeping Requirements.

Table IV – 5	
5.4	**Record Keeping Requirements:** **Note:** All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)]** A. Control of Visible Emissions 1. The Permittee shall retain records of preventative maintenance that relate to combustion performance on site for at least 5 years and make these records available to the Department upon request. **[Reference: COMAR 26.11.03.06C]** 2. NSPS: 40 CFR 60 – Subpart IIII Comply with Tier III requirements. B. Control of Particulate Matter Emissions **NSPS: 40 CFR 60 – Subpart IIII** See operational limitations in Section 5.4H C. Control of Sulfur Oxides Emissions 1 SO_2 RACT The Permittee shall maintain records of fuel supplier's certification or sulfur in fuel analyses and shall make records available to the Department upon request. **[Reference: COMAR 26.11.09.07C]** 2. NSPS: 40 CFR 60 – Subpart IIII Comply with Tier III requirements. D. Control of Nitrogen Oxides Emissions 1. NO_X RACT The Permittee shall maintain: (1) Records of the calculated capacity factors. **[Reference: COMAR 26.11.03.06C**] (2) Records of hour of operation**. [Reference: COMAR 26.11.02.19.C(1)(b)]** (3) Records of combustion analysis performed if the hours of operation exceed 500. [**Reference: COMAR 26.11.09.08G(1)(c)]** (4) Record of training program attendance for each operator. **[Reference: COMAR 26.11.09.08G(1)(e)]** 2. NSPS40 CFR 60 – Subpart IIII Comply with Tier III requirements.

Table IV – 5	
	E. Control of VOC Emissions Comply with Tier III requirements F. Control of Carbon Monoxide Emissions Comply with Tier III requirements G. Control of Hazardous Air Pollutants (HAPS) Emissions Comply with NSPS Subpart IIII requirements **[Reference: §63.6590(c)]** H. NSPS subpart IIII Operational limitations (1) The Permittee shall maintain a log for the emergency generator indicating the amounts of fuel oil combusted or the hours of operation, and reason for generator operation (i.e., maintenance or operational testing, power outage, etc.). (2) The Permittee shall maintain on site for the life of the source the following records for the emergency diesel generator(s): (a) Documentation of the manufacture date of the diesel engine, if manufactured prior to April 1, 2006 and the manufacturer model year of the diesel engine; (b) The installation date of each emergency diesel generator; and (c) The certifications of compliance or manufacturer engine test data required by 40 CFR §60.4211 and §60.4214(b (3) Beginning October 1, 2007, for any NSPS emergency diesel generator the Permittee shall for each fuel delivery obtain from the fuel supplier a fuel supplier certification consisting of the name of the oil supplier, the date of delivery, the amount of fuel delivered, and a statement from the fuel supplier that the diesel fuel oil complies with the specifications of 40 CFR §80.510. The Permittee shall maintain the required records on site for at least five (5) years. **[Reference: COMAR 26.11.03.06C]**
5.5	**Reporting Requirements:** A. Control of Visible Emissions 1. & 2: The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, “Report of Excess Emissions and Deviations.” B. Control of Particulate Matter Emissions **NSPS: 40 CFR 60 – Subpart IIII** See operational limitations in Section 5.4H.

Table IV – 5	
	C. Control of Sulfur Oxides Emissions 1 SO_2 RACT The Permittee shall report fuel supplier certification or a copy of the sulfur in fuel analyses to the Department upon request. **[Reference: COMAR 26.11.09.07C]** 2. NSPS: 40 CFR 60 – Subpart IIII Comply with Tier III requirements. D. Control of Nitrogen Oxides Emissions 1. NO_X RACT The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 emission certification report. **[Reference: COMAR 26.11.09.08G(1)(a) & COMAR 26.11.03.06C]** The Permittee shall submit a record of training program attendance for each operator to the Department upon request. **[Reference: COMAR 26.11.09.08G(1)(e)]** E. Control of VOC Emissions Comply with Tier III requirements F. Control of Carbon Monoxide Emissions Comply with Tier III requirements G. Control of Hazardous Air Pollutants (HAPS) Emissions Comply with NSPS Subpart IIII requirements **[Reference: §63.6590(c)]** H. NSPS subpart IIII Operational limitations The Permittee shall report the amounts of fuel oil combusted or the hours of operation, and reason for generator operation (i.e., maintenance or operational testing, power outage, etc.) to the Department in the annual emission certification report due on April 1 of each year. **[Reference: COMAR 26.11.03.06C]**

"A permit shield shall cover the applicable requirements identified for the emissions unit(s) listed in the table above."

Table IV – 6

6.0	**Emissions Unit Number(s): FSC-BS-EG** **FSC-BS-EG**: The emergency generator is a 670 HP diesel-fired internal combustion engine installed at the facility to provide back-up power.
6.1	**Applicable Standards/Limits:** A. Control of Visible Emissions **1. COMAR 26.11.09.05E(2),** Emission During Idle Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity." This requirement is not applicable during Preventative Maintenance. **COMAR 26.11.09.05E(3),** Emission During Operating Mode. "A person may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity." This requirement is not applicable during Preventative Maintenance. Exceptions. **COMAR 26.11.09.05E(4)** "(a) Section E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 minutes for the purpose of clearing exhaust system. (b) Section E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods: (i) Engines that are idled continuously when not in service: 30 minutes; (ii) All other engines: 15 minutes. (c) Section E(2) and E(3) does not apply while maintenance, repair, or testing is being performed by qualified mechanics." B. Control of Sulfur Oxides Emissions **COMAR 26.11.09.07A(2)** – Control of Sulfur Oxides from fuel burning equipment. "A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: In Areas III and IV: (a) All solid fuels, 1.0 percent; (b) **Distillate fuel oils, 0.3 percent;** (c) Residual fuel oils, 1.0 percent. " C. Control of Nitrogen Oxides Emissions **COMAR 26.11.09.08G** – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent. (1) "A person who owns or operates fuel-burning equipment with a capacity factor (as defined in 40 CFR Part 72.2) of 15 percent or less shall: (a) Provide certification of the capacity factor of the equipment to the

Table IV – 6

Department in writing;
(b) For fuel-burning equipment that operates more than 500 hours during a calendar year, perform a combustion analysis and optimize combustion at least once annually;
(c) Maintain the results of the combustion analysis and any stack tests at the site for at least 2 years and make these results available to the Department and the EPA upon request;
(d) Require each operator of an installation, except combustion turbines, to attend operator training programs at least once every 3 years, on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and
(e) Maintain a record of training program attendance for each operator at the site, and make these records available to the Department upon request."

D. Control of Hazardous Air Pollutants (HAPS) Emissions
40CFR 63 Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
§63.6585 - Am I subject to this subpart?
"You are subject to this subpart if you own or operate a stationary RICE at a **major** or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.
(b) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site."

§63.6590 - What parts of my plant does this subpart cover?
"This subpart applies to each affected source.
(a) *Affected source.* An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.
(1) *Existing stationary RICE.*
(i) For stationary RICE with a site rating of more than 500 brake horsepower (HP) located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before December 19, 2002."

Table IV – 6	
	§63.6640 - How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requirements? "(f) If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1) through (4) of this section. In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (4) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (4) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines. (1) There is no time limit on the use of emergency stationary RICE in emergency situations. (2) You may operate your emergency stationary RICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs (f)(3) and (4) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2). (i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year. (iii) Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. (3) Emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. The 50 hours per year for non-emergency situations cannot be used for peak shaving, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity."

Table IV – 6

	Note: Engines that operate in non-emergency situations are considered load shaving units under COMAR 26.11.36-Distributed Generation and must meet the requirements of COMAR 26.11.36.03.
6.2	**Testing Requirements:** A. Control of Visible Emissions See Monitoring Requirements. B. Control of Sulfur Oxides Emissions See Monitoring Requirements C. Control of Nitrogen Oxides Emissions NO_X RACT The Permittee shall perform a combustion analysis and optimize combustion at least once annually when the hours of operation exceed 500 during the year. **[Reference: COMAR 26.11.09.08G(1)(b)]** D. Control of Hazardous Air Pollutants (HAPS) Emissions See Monitoring Requirements.
6.3	**Monitoring Requirements:** A. Control of Visible Emissions The Permittee shall properly operate and maintain the engines in a manner to minimize visible emissions. **[Reference: COMAR 26.11.03.06C]** B. Control of Sulfur Oxides Emissions SO_2 RACT The Permittee shall obtain a certification from the fuel supplier indicating that the fuel oil is in compliance with the limitation on the sulfur content of the fuel oil or obtain sulfur in fuel analyses of oil that is representative of the oil burned. **[Reference: COMAR 26.11.03.06C]** C. Control of Nitrogen Oxides Emissions NO_X RACT The Permittee shall calculate the capacity factor of the engines for each calendar year within 30 days after the end of each year. **[Reference: COMAR 26.11.03.06C]**

Table IV – 6	
	D. Control of Hazardous Air Pollutants (HAPS) Emissions The Permittee must install a non-resettable hour meter on the emergency generator if one is not already installed. **[Reference: §63.6625(f)]**
6.4	**Record Keeping Requirements:** **Note:** All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)]** A. Control of Visible Emissions The Permittee shall retain records of preventative maintenance that relate to combustion performance on site for at least 5 years and make these records available to the Department upon request. **[Reference: COMAR 26.11.03.06C]** B. Control of Sulfur Oxides Emissions SO_2 RACT The Permittee shall maintain records of fuel supplier's certification or sulfur in fuel analyses and shall make records available to the Department upon request. **[Reference: COMAR 26.11.09.07C]** C. Control of Nitrogen Oxides Emissions NO_X RACT The Permittee shall maintain: (1) Records of the calculated capacity factors. **[Reference: COMAR 26.11.03.06C**] (2) Records of hour of operation**. [Reference: COMAR 26.11.02.19.C(1)(b)]** (3) Records of combustion analysis performed if the hours of operation exceed 500. [**Reference: COMAR 26.11.09.08G(1)(c)]** (4) Record of training program attendance for each operator. **[Reference: COMAR 26.11.09.08G(1)(e)]** D. Control of Hazardous Air Pollutants (HAPS) Emissions The Permittee shall maintain for the emergency generator a log of the hours of operation (including dates and times) and reason for generator operation (i.e. maintenance or operational testing, power outage, etc.) which are recorded by a non-resettable hour meter. The Permittee must document how many hours are spent for emergency operation and how many hours are spent on non-emergency operation. **[Reference: COMAR 26.11.03.06C)]**

Table IV – 6	
6.5	**Reporting Requirements:** A. Control of Visible Emissions The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations." B. Control of Sulfur Oxides Emissions SO_2 RACT The Permittee shall report fuel supplier certification or a copy of the sulfur in fuel analyses to the Department upon request. **[Reference: COMAR 26.11.09.07C]** C. Control of Nitrogen Oxides Emissions NO_X RACT The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing as part of the April 1 emission certification report. **[Reference: COMAR 26.11.09.08G(1)(a) & COMAR 26.11.03.06C]** The Permittee shall submit a record of training program attendance for each operator to the Department upon request. **[Reference: COMAR 26.11.09.08G(1)(e)]** D. Control of Hazardous Air Pollutants (HAPS) Emissions The Permittee shall report the hours of operation, and reason for generator operation (i.e., maintenance or operational testing, power outage, etc.) to the Department in the annual emission certification report due on April 1 of each year. **[Reference: COMAR 26.11.03.06C]**

"A permit shield shall cover the applicable requirements identified for the emissions unit(s) listed in the table above."

Table IV – 7	
7.0	**Emissions Unit Number(s): FSC-HAW-Unit1 and FSC-HAW-Unit4** **FSC-HAW-Unit1:** H.A. Wagner Unit 1 is a No. 6 oil or natural gas fired unit (nominally rated at 133 MW) [**5-0469**] **FSC-HAW-Unit4:** H.A. Wagner Unit 4 is a No. 6 oil fired unit with natural gas fired used for start-up (nominally rated at 415 MW) [**4-0017**]

Table IV – 7	
7.1	**Applicable Standards/Limits:** A. Control of Visible Emissions **COMAR 26.11.09.05** - Visible Emissions. "A. Fuel Burning Equipment. (2) Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity. (3) Exceptions. Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, startup, or adjustments or occasional cleaning of control equipment if: (a) The visible emissions are not greater than 40 percent opacity; and (b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty minute period." B. Control of Particulate Matter Emissions **COMAR 26.11.09.06B(3)** – Solid Fuel Burning Equipment. "A person may not cause or permit particulate matter caused by the combustion of solid fuel to be discharged into the atmosphere in excess of the amounts shown in Table 1." ***For these units, the maximum allowable emissions of particulate matter 0.03 gr/scfd @ 50% excess air***. **COMAR 26.11.09.06C**. Determination of Compliance (by stack test). "Compliance with the particulate matter emissions standards in this regulation shall be calculated as the average of 3 test runs using EPA Test Method 5 or other United States Environmental Protection Agency test method approved by the Department." C. Control of Sulfur Oxides **1. COMAR 26.11.09.07**: Control of Sulfur Oxides From Fuel Burning Equipment. "A. Sulfur Content Limitations for Fuel. A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: (2) In Areas III and IV: (a) All solid fuels, 1.0 percent; (b) Distillate fuel oils, 0.3 percent; (c) **Residual fuel oils, 1.0 percent**."

Table IV – 7	
	2. Acid Rain Provisions The Permittee shall comply with the requirements of the Phase II Acid Rain Permit issued for this generating station. Note: A renewal Phase II Acid Rain Permit will be issued in conjunction with this Part 70 permit and is attached to the Part 70 permit as Appendix A. **3. Cross-State Air Pollution Rule** **See Table IV-13: CSAPR for requirements** D. Control of Nitrogen Oxides **1. NO_X RACT Requirements – See Table IV-11: NO_X RACT** **2. Acid Rain Provisions** The Permittee shall comply with the requirements of the Phase II Acid Rain Permit issued for this generating station. Note: A renewal Phase II Acid Rain Permit will be issued in conjunction with this Part 70 permit and is attached to the Part 70 permit as Appendix A. **3. Cross-State Air Pollution Rule** **See Table IV-13: CSAPR for requirements** E. Control HAP Emissions. **See Table IV-12: MACT Subpart UUUUU Requirements.**
7.2	**Testing Requirements:** A. Control of Visible Emissions See Monitoring Requirements. B. Control of Particulate Matter Emissions The Permittee, in accordance with COMAR 26.11.01.04A(1), shall conduct annual testing using EPA Reference Methods of 40 CFR Part 60, Appendix A The Permittee shall submit a test protocol to the Department for approval at least 30 days prior to the proposed test date. **[Reference: COMAR 26.11.03.06C]** C. Control of Sulfur Oxides **1**. The Permittee shall perform quality control/ quality assurance procedures on the continuous emission monitoring system as established in 40 CFR Part 75, Appendix D - Emissions Data Protocol for Gas-Fired and Oil-Fired Units. **[Reference: COMAR 26.11.03.06C].**

Table IV – 7	
	2. Acid Rain Provisions The Permittee shall perform quality control/ quality assurance procedures on the continuous emission monitoring system as established in 40 CFR Part 75, Appendix A. **[Reference: 40 CFR Part 75, Appendix A & COMAR 26.11.03.06C]**. D. Control of Nitrogen Oxides **1. NO_X RACT Requirements – See Table IV-11: NO_X RACT** **2. Acid Rain Provisions** The Permittee shall perform quality control/ quality assurance procedures on the continuous emission monitoring system as established in 40 CFR Part 75, Appendix A. **[Reference: 40 CFR Part 75, Appendix A & COMAR 26.11.03.06C]**.
7.3	**Monitoring Requirements:** A. Control of Visible Emissions The Permittee shall continuously monitor opacity of the stack gases using a continuous opacity monitor that is certified in accordance with 40 CFR Part 60, Appendix B and that meets the quality assurance criteria of COMAR 26.11.31.06. **[Reference: COMAR 26.11.01.10]** B. Control of Particulate Matter Emissions The Permittee shall comply with the CAM requirements found in Table IV-7a & 7b. **[Reference: COMAR 26.11.06.03C]** C. Control of Sulfur Oxides **1**. The Permittee shall comply with the fuel analyses requirements as found in 40 CFR Part 75 Appendix D. **[Reference: COMAR 26.11.03.06C]** **2. Acid Rain Provisions** The Permittee shall install, certify, operate, and maintain a SO_2 emission monitoring system that meets the requirements of 40 CFR Part 75, subpart B- Monitoring Provisions. **[Reference: §75.10(a)(1)** and **Acid Rain Permit].** D. Control of Nitrogen Oxides **1. NO_X RACT Requirements – See Table IV-11: NO_X RACT** **2. Acid Rain Provisions** The Permittee shall install, certify, operate, and maintain a NO_X emission monitoring system that meets the requirements of 40 CFR Part 75, subpart B- Monitoring Provisions. **[Reference: §75.10(a)(1)** and **Acid Rain Permit].**

Table IV – 7	
7.4	**Record Keeping Requirements:** **Note:** All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)]** A. Control of Visible Emissions All information required by this regulation to be maintained or reported to the Department shall be retained and made available for review by the Department for a minimum of 5 years from the time the report is submitted. **[Reference: COMAR 26.11.01.10E]** B. Control of Particulate Matter Emissions The Permittee shall maintain records of the results of all particulate emission compliance tests. **[Reference: COMAR 26.11.01.05A(2)]** C. Control of Sulfur Oxides **1**. The Permittee shall retain, on site for at least 5 years, fuel oil analyses of samples collected in accordance with 40 CFR Part 75 Appendix D. **[Reference: COMAR 26.11.06.03C]** **2. Acid Rain Provisions** The Permittee shall comply with the recordkeeping requirements of 40 CFR Part 72 and 40 CFR Part 75. [**Reference: See Acid Rain Permit]** D. Control of Nitrogen Oxides **1. NO_X RACT Requirements – See Table IV-11: NO_X RACT.** **2. Acid Rain Provisions** The Permittee shall comply with the recordkeeping requirements of 40 CFR Part 72 and 40 CFR Part 75. [**Reference: See Acid Rain Permit]**
7.5	**Reporting Requirements:** A. Control of Visible Emissions **COMAR 26.11.01.10D**. - Record Keeping and **Reporting** Requirements. "(1) System Downtime Reporting Requirements. (a) All COM downtime that lasts or is expected to last more than 24 hours shall be reported to the Department by telephone before 10 a.m. of the first regular business day following the first day on which downtime occurs. (b) The COM downtime report shall include the reason, if known, for the breakdown and the estimated period of time that the COM will be down. The owner or operator shall notify the Department by telephone when the COM has met performance specifications for accuracy, reliability, and durability of acceptable monitoring systems, as provided in 40 CFR Part 51 Appendix P,

Table IV – 7	
	and is producing data. (c) Except as otherwise approved by the Department and the EPA, a COM shall operate in compliance with the requirements of §B(2) of this regulation and collect data for at least 95 percent of the source's operating time during any calendar quarter. The alternative measurement plan required in §B(1)(b) of this regulation shall be used at all times when the COM fails to conform to performance standards required by §B(2) of this regulation during data collection. (2) Data Reporting Requirements. (a) A COM shall automatically reduce all data to six-minute block averages calculated from 24 or more equally spaced data points. (b) All COM data shall be reported in a format approved by the Department. (c) A quarterly summary report shall be submitted to the Department not later than 30 days following each calendar quarter. The report shall be in a format approved by the Department, and shall include the following: (i) The cause, time periods, and the opacity of all emissions which exceed the applicable quarterly, daily and hourly emission standards as provided in COMAR 26.11.09.05A(4); (ii) The COM and installation downtimes, including the time and date of the beginning and end of each downtime period, and whether the downtime was scheduled; (iii) The cause of all COM downtime; (iv) The total operating time for the quarter, and the total time and percent of the operating time during the quarter that excess emissions occurred, and the percentage of COM downtime, during the calendar quarter; (v) Quarterly quality assurance activities; (vi) Daily calibration activities that include reference values, actual values, absolute or percent of span differences, and drift status; (vii) Other information that the Department determines is necessary to evaluate the data or to ensure that compliance is achieved." B. Control of Particulate Matter Emissions **COMAR General Administrative Provisions – Testing and Monitoring.** The Permittee shall submit a test protocol/notification to the Department for approval at least 30 days prior to test and a notice of intent to test at least 10 days prior to the scheduled test date. The Permittee shall submit the results of stack tests in a final report within 60 days from test completion. **[Reference: COMAR 26.11.01.04A].** C. Control of Sulfur Oxides **1**.-The Permittee shall submit fuel oil analyses to the Department upon request.

Table IV – 7	
	[Reference: COMAR 26.11.06.03C] **2. Acid Rain Provisions** The Permittee shall comply with the reporting requirements of 40 CFR Part 72 and 40 CFR Part 75. **[Reference: See the Acid Rain Permit]** D. Control of Nitrogen Oxides **1. NO_X RACT Requirements – See Table IV-11: NO_X RACT** **2. Acid Rain Provisions** The Permittee shall comply with the reporting requirements of 40 CFR Part 72 and 40 CFR Part 75. **[Reference: See the Acid Rain Permit]**

"A permit shield shall cover the applicable requirements identified for the emissions unit(s) listed in the table above."

Table IV-7a		
COMPLIANCE ASSURANCE MONITORING REQUIREMENTS – PART 64		
Electrostatic Precipitator for FSC-HAW-Unit1 (No.6 Fuel Oil firing only)		
Applicable Requirement	**PM:** Emission Limit 0.03 gr/scfd @ 50% excess. COMAR 26.11.09.06B(3)	
I. Indicator	Indicator #1 - **Opacity**	Indicator #2 – **ESP Alarm Monitoring**
	Continuous Opacity Monitor (COM)	Malfunction of Electrostatic Precipitator (ESP).
Measurement Approach	Opacity data is measured and recorded by a certified opacity monitoring system	Operators oversee the ESP unit operation and will react as appropriate to control system alarms that indicate abnormal operation
II. Indicator Range	An internal, non-enforceable **trigger level of 10.2% average opacity** is established. The unit operators will take corrective action when the trigger level is exceeded	ESP is normally operated with at least three fields in service. The activation of a control room alarm indicates possible operation of the ESP outside the normal operating conditions.
III. Performance Criteria	The COM meets the performance criteria for installation and operation as specified in COMAR 26.11.01.10, COMAR 26.11.01.11, COMAR 26.11.31, and the more stringent requirements of the Acid Rain monitoring rules of 40 CFR Part 75	Normal operation of the ESP is continuously monitored
1. Data Representativeness	COM data will be collected and validated in accordance with COMAR 26.11.01.10, COMAR 26.11.01.11 and COMAR 26.11.31.	The alarm points have been set within the distributed control system (DCS) to alert the operators of potential ESP malfunction.

2. Verification of Operational Status (new or modified equipment)	COM data availability requirements are continuous data availability excluding audit and check periods and malfunctions that are corrected within two hours each day. CEM downtime up to 10% of operating time may initiate follow-up by MDE per COMAR 26.11.31.	Continuous monitoring of the DCS will alert the operators of potential ESP malfunction.
3. QA/QC Practices and Criteria	COM QA/QC procedures are consistent with the applicable requirements of COMAR 26.11.01.10, COMAR 26.11.01.11 and COMAR 26.11.31.	Calibration, maintenance and operation of the ESP in accordance with good operating practice.
4. Monitoring Frequency	Opacity is measured on a continuous basis with the exception of periods when the fans are shut off and there is no flame in the boiler Data from the backup monitoring system and ESP power management system will be used to indicate normal ESP performance during QA/QC periods or monitor malfunctions.	Monitoring is ongoing, so that alarm notifications are triggered whenever a potential malfunction occurs.
5. Data Collection Procedures	Opacity data is collected in a certified Data Acquisition System (DAS) and is archived for at least five years.	The ESP operations are continually monitored. Hard copies of event data will be stored for five years.
6. Averaging Period	One-minute average data is collected and stored. Three hour block averages are calculated and stored based on the minute-by-minute data, for use as a compliance surrogate of Method 5 based in PM mass emission limits.	So long as the ESP is being operated normally, the primary indicator (opacity) will be relied upon to indicate continuous compliance with the PM standard.

Table IV-7b	
COMPLIANCE ASSURANCE MONITORING REQUIREMENTS – PART 64	
Electrostatic Precipitator for FSC-HAW-Unit4 (No.6 Fuel Oil firing only)	
Applicable Requirement	**PM:** Emission Limit 0.03 gr/scfd @ 50% excess. COMAR 26.11.09.06B(3)
I. Indicator	Indicator #1 - **Opacity**
	Continuous Opacity Monitor (COM)
Measurement Approach	Opacity data is measured and recorded by a certified opacity monitoring system
II. Indicator Range	An internal, non-enforceable **trigger level of 10.6% average opacity** is established as the Indicator Range. The unit operators will take corrective action when the trigger level is exceeded

III. Performance Criteria	The COM meets the performance criteria for installation and operation as specified in COMAR 26.11.01.10, COMAR 26.11.01.11, COMAR 26.11.31, and the more stringent requirements of the Acid Rain monitoring rules of 40 CFR Part 75
1. Data Representativeness	COM data will be collected and validated in accordance with COMAR 26.11.01.10, COMAR 26.11.01.11 and COMAR 26.11.31.
2. Verification of Operational Status (new or modified equipment)	COM data availability requirements are continuous data availability excluding audit and check periods and malfunctions that are corrected within two hours each day. CEM downtime up to 10% of operating time may initiate follow-up by MDE per COMAR 26.11.31.
3. QA/QC Practices and Criteria	COM QA/QC procedures are consistent with the applicable requirements of COMAR 26.11.01.10, COMAR 26.11.01.11 and COMAR 26.11.31.
4. Monitoring Frequency	Opacity is measured on a continuous basis with the exceptions of periods when the fans are shut off and there is no flame in the boiler. Data from the backup monitoring system and ESP power management system will be used to indicate normal ESP performance during QA/QC periods or monitor malfunctions.
5. Data Collection Procedures	Opacity data is collected in a certified Data Acquisition System (DAS) and is archived for at least five years.
6. Averaging Period	One-minute average data is collected and stored. Three hour block averages are calculated and stored based on the minute-by-minute data, for use as a compliance surrogate of Method 5 based in PM mass emission limits.

Table IV – 8	
8.0	**Emissions Unit Number(s): FSC-HAW-Unit2 and FSC-HAW-Unit3** **FSC-HAW-Unit2:** H.A. Wagner Unit 2 is a coal fired unit with natural gas used for start-up. **[3-0017]** **FSC-HAW-Unit3:** H.A. Wagner Unit 3 is a coal fired unit with natural gas used for start-up. **[3-0003]**
8.1	**Applicable Standards/Limits:** A. Control of Visible Emissions **COMAR 26.11.09.05** - Visible Emissions. "A. Fuel Burning Equipment. (2) Areas III and IV. In Areas III and IV, a person may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity. (3) Exceptions. Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, startup, or adjustments or occasional cleaning of control equipment if:

Table IV – 8

(a) The visible emissions are not greater than 40 percent opacity; and
(b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty minute period."

B. Control of Particulate Matter Emissions
1. COMAR 26.11.09.06B(3) – Solid Fuel Burning Equipment. "A person may not cause or permit particulate matter caused by the combustion of solid fuel to be discharged into the atmosphere in excess of the amounts shown in Table 1." ***For these units, the maximum allowable emissions of particulate matter 0.03 gr/scfd @ 50% excess air***.

COMAR 26.11.09.06C. Determination of Compliance (by stack test). "Compliance with the particulate matter emissions standards in this regulation shall be calculated as the average of 3 test runs using EPA Test Method 5 or other United States Environmental Protection Agency test method approved by the Department."

C. Control of Sulfur Oxides
1. COMAR 26.11.09.07: Control of Sulfur Oxides From Fuel Burning Equipment.
"A. Sulfur Content Limitations for Fuel. A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations:
(2) In Areas III and IV:
(a) **All solid fuels, 1.0 percent;**
(b) Distillate fuel oils, 0.3 percent;
(c) Residual fuel oils, 1.0 percent."

Fuel Type Limits: The only permissible fuels for Wagner Unit 2 and Wagner Unit 3 are solid fossil fuels including bituminous coal, sub-bituminous coal, and a blend of bituminous and sub-bituminous coals, except that natural gas may be used during startups. **[Reference: COMAR 26.11.02.02H, CPCN No. 9338, conditions B-IV-1]**

2. Healthy Air Act
COMAR 26.11.27.03C. SO_2 Emission Limitations.
(1) Except as provided in §E of this regulation, annual SO_2 emissions from each affected electric generating unit may not exceed the number of tons in §C(2) of this regulation.
(2) Annual Tonnage Limitations.

Affected Unit	Annual SO_2 Tonnage Limitations Beginning
	January 1, 2013
H.A Wagner Unit 2	1,239 tons

Table IV – 8

H.A Wagner Unit 3	2,490 tons

COMAR 26.11.27.03E. System-Wide Compliance Determinations.
(1) Compliance with the emission limitations in §§B and C of this regulation may be achieved by demonstrating that the total number of tons emitted from all electric generating units in a system does not exceed the sum of the tonnage limitations for all electric generating units in that system.
(2) A system-wide compliance determination shall be based only upon emissions from units in Maryland that are subject to the emission limitations in §§B and C of this regulation.
(3) If a unit that is part of a system is transferred to a different person that does not own, operate, lease, or control an affected unit subject to this chapter, the transferred unit shall meet the limitations in §§B and C of this regulation applicable to that electric generating unit.

3. Acid Rain Provisions
The Permittee shall comply with the requirements of the Phase II Acid Rain Permit issued for this generating station. Note: A renewal Phase II Acid Rain Permit will be issued in conjunction with this Part 70 permit and is attached to the Part 70 permit as Appendix A.

4. Cross-State Air Pollution Rule
See Table IV-13: CSAPR for requirements

D. Control of Nitrogen Oxides
1. NO_X RACT Requirements – See Table IV-11: NO_X RACT

2. Healthy Air Act
COMAR 26.11.27.03B. NO_X Emission Limitations.
"(1) Except as provided in §E of this regulation, annual NO_X emissions from each affected electric generating unit may not exceed the number of tons in §B(2) of this regulation.
(2) Annual Tonnage Limitations.

Affected Unit	Annual NO_X Tonnage Limitations Beginning
	January 1, 2012
H.A Wagner Unit 2	555 tons
H.A Wagner Unit 3	1,115 tons

(3) Except as provided in §E of this regulation, ozone season NO_X emissions from each affected electric generating unit may not exceed the number of tons in §B(4) of this regulation."

"(6) Ozone Season Tonnage Limitations.

Affected Unit	Ozone Season NO_X Tonnage Limitations Beginning
	May 1, 2012

Table IV – 8

H.A Wagner Unit 2	229 tons
H.A Wagner Unit 3	481 tons

(7) Electric System Reliability During Ozone Seasons.
(a) An exceedance of the NO_X limitations in §B(4) or (6) of this regulation which occurs because PJM Interconnection, LLC or a successor independent system operator, acts to invoke "Maximum Emergency Generation", "Load Reduction", "Voltage Reduction", "Curtailment of Non-essential Building Load", or "Manual Load Dump" procedures in accordance with the current PJM Manual, or a PJM alert preceding such action as to a generating unit that has temporarily shut down in order to avoid potential interruption in electric service and maintain electric system reliability is not a violation of this chapter provided that:
(i) Within 36 hours following the action, the owner or operator of the affected electric generating unit or units notifies the Manager of the Air Quality Compliance Program of the action taken by PJM Interconnection and provides the Department with documentation of the action which is satisfactory to the Department;
(ii) Within 48 hours after completion of the action, the owner or operator of the affected unit or units provides the Department with the estimated NO_X emissions in excess of the emission limitation; and
(iii) *See State-only enforceable section of the permit for additional requirement.*
(b) The owner or operator of an electric generating unit or system, as applicable, shall send written notice to the Manager of the Air Quality Compliance Program not later than 5 business days following the day when the cumulative ozone season NO_X emissions of an electric generating unit or system, as applicable, are:
(i) Equal to approximately 80 percent of the applicable ozone season emission limitation; and
(ii) Equal to the applicable ozone season emission limitation. “

COMAR 26.11.27.03E. System-Wide Compliance Determinations.
“(1) Compliance with the emission limitations in §§B and C of this regulation may be achieved by demonstrating that the total number of tons emitted from all electric generating units in a system does not exceed the sum of the tonnage limitations for all electric generating units in that system.
(2) A system-wide compliance determination shall be based only upon emissions from units in Maryland that are subject to the emission limitations in §§B and C of this regulation.
(3) If a unit that is part of a system is transferred to a different person that does not own, operate, lease, or control an affected unit subject to this chapter, the transferred unit shall meet the limitations in §§B and C of this

Table IV – 8	
	regulation applicable to that electric generating unit." **3. Acid Rain Provisions** The Permittee shall comply with the requirements of the Phase II Acid Rain Permit issued for this generating station. Note: A renewal Phase II Acid Rain Permit will be issued in conjunction with this Part 70 permit and is attached to the Part 70 permit as Appendix A. **4. Cross-State Air Pollution Rule** **See Table IV-13: CSAPR for requirements** E. Control of HAP Emissions **See Table IV-12: MACT Subpart UUUUU Requirements.**
8.2	**Testing Requirements:** A. Control of Visible Emissions See Monitoring Requirements. B. Control of Particulate Matter Emissions **1**. The Permittee, in accordance with COMAR 26.11.01.04A(1), shall conduct annual testing using EPA Reference Methods of 40 CFR Part 60, Appendix A The Permittee shall submit a test protocol/notification to the Department for approval at least 30 days prior to the proposed test date and provide a 10-day notice to the Department prior to the scheduled test date. **[Reference: COMAR 26.11.03.06C]** C. Control of Sulfur Oxides **1**. The Permittee shall perform quality control/ quality assurance procedures on the continuous emission monitoring system as established in 40 CFR Part 75, Appendix A. **[Reference: 40 CFR Part 75, Appendix A & COMAR 26.11.03.06C]**. **2. Healthy Air Act** The Permittee shall perform quality control/ quality assurance procedures on the continuous emission monitoring system as established in 40 CFR Part 75, Appendix A. **[Reference: 40 CFR Part 75, Appendix A & COMAR 26.11.03.06C]**. **3. Acid Rain Provisions** The Permittee shall perform quality control/ quality assurance procedures on the continuous emission monitoring system as established in 40 CFR Part 75, Appendix A. **[Reference: 40 CFR Part 75, Appendix A & COMAR**

Table IV – 8	
	26.11.03.06C]. D. Control of Nitrogen Oxides **1. NO_X RACT Requirements – See Table IV-11: NO_X RACT** **2. Healthy Air Act** The Permittee shall perform quality control/ quality assurance procedures on the continuous emission monitoring system as established in 40 CFR Part 75, Appendix A. **[Reference: 40 CFR Part 75, Appendix A & COMAR 26.11.03.06C]** **3. Acid Rain Provisions** The Permittee shall perform quality control/ quality assurance procedures on the continuous emission monitoring system as established in 40 CFR Part 75, Appendix A. **[Reference: 40 CFR Part 75, Appendix A & COMAR 26.11.03.06C]**.
8.3	**Monitoring Requirements:** A. Control of Visible Emissions The Permittee shall continuously monitor opacity of the stack gases using a continuous opacity monitor that is certified in accordance with 40 CFR Part 60, Appendix B and that meets the quality assurance criteria of COMAR 26.11.31.06. **[Reference: COMAR 26.11.01.10]** B. Control of Particulate Matter Emissions See CAM Requirements in Table IV-8a & 8b. C. Control of Sulfur Oxides **1**.The Permittee shall obtain fuel supplier in fuel analyses or collect and analyze coal samples of coal received that demonstrate that the coal is in compliance with the 1.0 percent sulfur content in fuel limitation on an as burned basis. **[Reference: COMAR 26.11.03.06C]** "The owner or operator of fuel-burning equipment burning coal, with a heat input capacity of 100 million Btu per hour or greater, shall install CEMs to measure and record sulfur dioxide, nitrogen oxide, either oxygen or carbon dioxide, and flow." [**Reference: COMAR 26.11.01.11B(2)]** **2. Healthy Air Act** **COMAR 26.11.27.05** – **Monitoring** and Reporting Requirements "**A**. Compliance with the emission limitations in this chapter shall be demonstrated with a continuous emission monitoring system that is installed, operated, and certified in accordance with 40 CFR Part 75."

Table IV – 8	
	3. Acid Rain Provisions The Permittee shall install, certify, operate, and maintain a SO_2 emission monitoring system that meets the requirements of 40 CFR Part 75, subpart B- Monitoring Provisions. **[Reference: §75.10(a)(1)** and **Acid Rain Permit].** D. Control of Nitrogen Oxides **1. NO_X RACT Requirements – See Table IV-11: NO_X RACT** **2. Healthy Air Act** **COMAR 26.11.27.05** – **Monitoring** and Reporting Requirements "**A**. Compliance with the emission limitations in this chapter shall be demonstrated with a continuous emission monitoring system that is installed, operated, and certified in accordance with 40 CFR Part 75." **Continuous Emissions Monitoring Requirements** – Requires the Permittee to operate all CEMS under the requirements of COMAR 26.11.01.11. **[Reference: COMAR 26.11.01.11]** **3. Acid Rain Provisions** The Permittee shall install, certify, operate, and maintain a NO_X emission monitoring system that meets the requirements of 40 CFR Part 75, subpart B- Monitoring Provisions. **[Reference: §75.10(a)(1)** and **Acid Rain Permit].**
8.4	**Record Keeping Requirements:** **Note:** All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)]** A. Control of Visible Emissions All information required by this regulation to be maintained or reported to the Department shall be retained and made available for review by the Department for a minimum of 5 years from the time the report is submitted. **[Reference: COMAR 26.11.01.10E]** B. Control of Particulate Matter Emissions The Permittee shall maintain records of the results of all particulate emission compliance tests. For compliance stack test required under Conditions B-IV-6 and B-IV-7 of CPCN No. 9338, Wagner shall maintain all records of stack test notifications, reports, and results for a period of at least 5 years. **[Reference: COMAR 26.11.06.03C, COMAR 26.11.02.02H and CPCN No. 9338, Condition B-IV-26, 32]**

Table IV – 8	
	C. Control of Sulfur Oxides **1**. The Permittee shall retain, on site for at least 5 years, fuel supplier certifications stating that the coal is in compliance with the sulfur content in the fuel limitation or analyses of collected samples. **[Reference: COMAR 26.11.06.03C]** The Permittee shall maintain all records necessary to comply with the data reporting requirements of COMAR 26.11.01.11E. **[Reference: COMAR 26.11.01.11E(2)].** **2. Healthy Air Act** The Permittee shall maintain all records necessary to demonstrate compliance with the requirements of the Healthy Air Act, COMAR 26.11.27. The Permittee shall maintain all information required to be reported or maintained under COMAR 26.11.01.11, on site for at least 5 years, and make available to the Department upon request. **[Reference: COMAR 26.11.03.06C and COMAR 26.11.01.11E(2)(d)].** **3. Acid Rain Provisions** The Permittee shall comply with the recordkeeping requirements of 40 CFR Part 72 and 40 CFR Part 75. [**Reference: See Acid Rain Permit]** D. Control of Nitrogen Oxides **1. NO_X RACT Requirements – See Table IV-11: NO_X RACT** **2. Healthy Air Act** The Permittee shall maintain records sufficient to demonstrate compliance with the requirements of the Healthy Air Act, COMAR 26.11.27. The Permittee shall maintain all information required to be reported or maintained under COMAR 26.11.01.11, on site for at least years, and make available to the Department upon request. **[Reference: COMAR 26.11.03.06C and COMAR 26.11.01.11E(2)(d)].** **3. Acid Rain Provisions** The Permittee shall comply with the recordkeeping requirements of 40 CFR Part 72 and 40 CFR Part 75. [**Reference: See Acid Rain Permit]**
8.5	**Reporting Requirements:** A. Control of Visible Emissions **COMAR 26.11.01.10D**. - Record Keeping and **Reporting** Requirements. "(1) System Downtime Reporting Requirements. (a) All COM downtime that lasts or is expected to last more than 24 hours shall be reported to the Department by telephone before 10 a.m. of the first

Table IV – 8	
	regular business day following the first day on which downtime occurs. (b) The COM downtime report shall include the reason, if known, for the breakdown and the estimated period of time that the COM will be down. The owner or operator shall notify the Department by telephone when the COM has met performance specifications for accuracy, reliability, and durability of acceptable monitoring systems, as provided in 40 CFR Part 51 Appendix P, and is producing data. (c) Except as otherwise approved by the Department and the EPA, a COM shall operate in compliance with the requirements of §B(2) of this regulation and collect data for at least 95 percent of the source's operating time during any calendar quarter. The alternative measurement plan required in §B(1)(b) of this regulation shall be used at all times when the COM fails to conform to performance standards required by §B(2) of this regulation during data collection. (2) Data Reporting Requirements. (a) A COM shall automatically reduce all data to six-minute block averages calculated from 24 or more equally spaced data points. (b) All COM data shall be reported in a format approved by the Department. (c) A quarterly summary report shall be submitted to the Department not later than 30 days following each calendar quarter. The report shall be in a format approved by the Department, and shall include the following: (i) The cause, time periods, and the opacity of all emissions which exceed the applicable quarterly, daily and hourly emission standards as provided in COMAR 26.11.09.05A(4); (ii) The COM and installation downtimes, including the time and date of the beginning and end of each downtime period, and whether the downtime was scheduled; (iii) The cause of all COM downtime; (iv) The total operating time for the quarter, and the total time and percent of the operating time during the quarter that excess emissions occurred, and the percentage of COM downtime, during the calendar quarter; (v) Quarterly quality assurance activities; (vi) Daily calibration activities that include reference values, actual values, absolute or percent of span differences, and drift status; (vii) Other information that the Department determines is necessary to evaluate the data or to ensure that compliance is achieved." B. <u>Control of Particulate Matter Emissions</u> The Permittee shall submit a test protocol/notification to the Department for approval at least 30 days prior to the proposed test date and provide a 10-days notice prior to the scheduled test date. The Permittee shall submit the results of stack tests to the Department in a final report within 60 days from the date of the test completion. **[Reference: COMAR 26.11.06.03C,**

Table IV – 8	
	COMAR 26.11.02.02H and CPCN No. 9338, Condition B-IV-26, 32] C. Control of Sulfur Oxides **1**. The Permittee shall submit coal supplier certifications or sulfur in fuel analyses to the Department upon request. The Permittee shall comply with the reporting requirements of COMAR 26.11.01.11E(1) and E(2) "(1) CEM System Downtime Reporting Requirements. (a) All CEM system downtime that lasts or is expected to last more than 24 hours shall be reported to the Department by telephone before 10 a.m. of the first regular business day following the breakdown. (b) The system breakdown report required by §E(1)(a) of this regulation shall include the reason, if known, for the breakdown and the estimated period of time that the CEM will be down. The owner or operator of the CEM shall notify the Department by telephone when an out-of-service CEM is back in operation and producing data that has met performance specifications for accuracy, reliability, and durability of acceptable monitoring systems, as provided in COMAR 26.11.31, and is producing data. (2) CEM Data Reporting Requirements. (a) All test results shall be reported in a format approved by the Department. (b) Certification testing shall be repeated when the Department determines that the CEM data may not meet performance specifications because of component replacement or other conditions that affect the quality of generated data. (c) A quarterly summary report shall be submitted to the Department not later than 30 days following each calendar quarter. The report shall be in a format approved by the Department, and shall include the following: (i) The cause, time periods, and magnitude of all emissions which exceed the applicable emission standards; (ii) The source downtime including the time and date of the beginning and end of each downtime period and whether the source downtime was planned or unplanned; (iii) The time periods and cause of all CEM downtime including records of any repairs, adjustments, or maintenance that may affect the ability of the CEM to meet performance specifications of emission data; (iv) Quarterly totals of excess emissions, installation downtime, and CEM downtime during the calendar quarter; (v) Quarterly quality assurance activities; (vi) Daily calibration activities that include reference values, actual values, absolute or percent of span differences, and drift status; and (vii) Other information required by the Department that is determined to be necessary to evaluate the data, to ensure that compliance is achieved, or to determine the applicability of this regulation.

Table IV – 8	
	(d) All information required by this regulation to be reported to the Department shall be retained and made available for review by the Department for a minimum of 2 years from the time the report is submitted." **[Reference: COMAR 26.11.06.03C and COMAR 26.11.01.11E(1)&(2)]** **2. Healthy Air Act** **COMAR 26.11.27.05** – Monitoring and Reporting Requirements "**B**. Beginning with calendar year 2007 and each year thereafter, the owner or operator of each electric generating unit subject to this chapter shall submit an annual report to the Department, the Department of Natural Resources, and the Public Service Commission. The report for each calendar year shall be submitted not later than March 1 of the following year. **C**. Each report shall include: (1) Emissions performance results related to compliance with the emission requirements under this chapter; (2) Emissions of NO_X and SO_2, and beginning with calendar year 2010, mercury, emitted during the previous calendar year from each affected unit; (3) A current compliance plan; and (4) Any other information requested by the Department." The Permittee shall submit the following CEMS reports to the Department for all CEMS required to be operated with the boilers: (a) CEM System Downtime Reports – All CEM system downtime that lasts or is expected to last more than 24 hours shall be reported to the Department by telephone before 10 a.m. of the first regular business day following the breakdown; (b) Quarterly CEM Summary Reports – A quarterly summary report shall be submitted to the Department not later than 30 days following each calendar quarter. The report shall be in a format approved by the Department and shall include the information required under COMAR 26.11.01.11E(2)(c)(i)-(vii). **[Reference: COMAR 26.11.01.11E(1)&(2)]** **3. Acid Rain Provisions** The Permittee shall comply with the reporting requirements of 40 CFR Part 72 and 40 CFR Part 75. **[Reference: See the Acid Rain Permit]** D. Control of Nitrogen Oxides **1. NO_X RACT Requirements – See Table IV-11: NO_X RACT** **2. Healthy Air Act**

Table IV – 8	
	COMAR 26.11.27.05 – Monitoring and Reporting Requirements "**B**. Beginning with calendar year 2007 and each year thereafter, the owner or operator of each electric generating unit subject to this chapter shall submit an annual report to the Department, the Department of Natural Resources, and the Public Service Commission. The report for each calendar year shall be submitted not later than March 1 of the following year. **C**. Each report shall include: (1) Emissions performance results related to compliance with the emission requirements under this chapter; (2) Emissions of NO_X and SO_2, and beginning with calendar year 2010, mercury, emitted during the previous calendar year from each affected unit; (3) A current compliance plan; and (4) Any other information requested by the Department." The Permittee shall submit the following CEMS reports to the Department for all CEMS required to be operated with the boilers: (a) CEM System Downtime Reports – All CEM system downtime that lasts or is expected to last more than 24 hours shall be reported to the Department by telephone before 10 a.m. of the first regular business day following the breakdown; (b) Quarterly CEM Summary Reports – A quarterly summary report shall be submitted to the Department not later than 30 days following each calendar quarter. The report shall be in a format approved by the Department and shall include the information required under COMAR 26.11.01.11E(2)(c)(i)-(vii). **[Reference: COMAR 26.11.01.11E(1)&(2)]** **3. Acid Rain Provisions** The Permittee shall comply with the reporting requirements of 40 CFR Part 72 and 40 CFR Part 75. **[Reference: See the Acid Rain Permit]**

"A permit shield shall cover the applicable requirements identified for the emissions unit(s) listed in the table above."

Table IV-8a		
COMPLIANCE ASSURANCE MONITORING REQUIREMENTS – PART 64		
Electrostatic Precipitator (ESP) for FSC-HAW-Unit2		
Applicable Requirement	**PM:** Emission limit: 0.03 gr/scfd @ 50% excess air. COMAR 26.11.09.06B(3).	
I. Indicator	Indicator #1	Indicator #2
	Continuous Opacity Monitor (COM)	Monitor ESP Power Management Alarm: Audible and visual alarm integrated with the power management system of the ESP

Measurement Approach	Opacity data is measured and recorded by a certified opacity monitoring system	Operators oversee the ESP unit operation and will react as appropriate to control system alarms that indicate abnormal operation
II. Indicator Range	An internal, non-enforceable trigger level of 13.6% average opacity is established. The unit operators will take corrective action when the trigger level is exceeded	The activation of the alarm indicates possible operation of the ESP outside the normal operating conditions.
III. Performance Criteria	The COM meets the performance criteria for installation and operation as specified in COMAR 26.11.01.10, COMAR 26.11.01.11, COMAR 26.11.31, and the more stringent requirements of the Acid Rain monitoring rules of 40 CFR Part 75	The operation of the power management system is continuously monitored
1. Data Representativeness	COM data will be collected and validated in accordance with COMAR 26.11.01.10, COMAR 26.11.01.11 and COMAR 26.11.31.	The alarm points have been set to provide the operators with an early warning of potential ESP malfunction.
2. Verification of Operational Status (new or modified equipment)	COM data availability requirements are continuous data availability excluding audit and check periods and malfunctions that are corrected within two hours each day. CEM downtime up to 10% of operating time may initiate follow-up by MDE per COMAR 26.11.31.	Continuous monitoring will detect deviations from normal operating conditions of the power management system.
3. QA/QC Practices and Criteria	COM QA/QC procedures are consistent with the applicable requirements of COMAR 26.11.01.10, COMAR 26.11.01.11 and COMAR 26.11.31.	Calibration, maintenance and operation of the power management system in accordance with specifications.
4. Monitoring Frequency	Opacity is measured on a continuous basis with the exception of periods when the fans are shut off and there is no flame in the boiler. Data from the backup monitoring system and ESP power management system will be used to indicate normal ESP performance during QA/QC periods or monitor malfunctions.	The power management system parameters will be monitored recorded at least four times within each operating hour.
5. Data Collection Procedures	Opacity data is collected in a certified Data Acquisition System (DAS) and is archived for at least five years.	The power management parameters are recorded using power management system DAS and electronically archived for at least 90 days, hard copy of event data will be stored for five years.

6. Averaging Period	One-minute average data is collected and stored. Three hour block averages are calculated and stored based on the minute-by-minute data, for use as a compliance surrogate of Method 5 based in PM mass emission limits.	The power management alarm setting is set by the power management system OEM guidelines. So long as the ESP is being operated normally, the primary indicator (opacity) will be relied upon to indicate continuous compliance with the PM standard.

Table IV-8b		
COMPLIANCE ASSURANCE MONITORING REQUIREMENTS – PART 64		
Electrostatic Precipitator (ESP) for FSC-HAW-Unit3		
Applicable Requirement	**PM:** Emission limit: 0.03 gr/scfd @ 50% excess air. COMAR 26.11.09.06B(3).	
I. Indicator	Indicator #1	Indicator #2
	Continuous Opacity Monitor (COM)	Monitor ESP Power Management Alarm: Audible and visual alarm integrated with the power management system of the ESP
Measurement Approach	Opacity data is measured and recorded by a certified opacity monitoring system	Operators oversee the ESP unit operation and will react as appropriate to control system alarms that indicate abnormal operation
II. Indicator Range	An internal, non-enforceable trigger level of 15.4% average opacity is established. The unit operators will take corrective action when the trigger level is exceeded	The activation of the alarm indicates possible operation of the ESP outside the normal operating conditions.
III. Performance Criteria	The COM meets the performance criteria for installation and operation as specified in COMAR 26.11.01.10, COMAR 26.11.01.11, COMAR 26.11.31, and the more stringent requirements of the Acid Rain monitoring rules of 40 CFR Part 75	The operation of the power management system is continuously monitored
1. Data Representativeness	COM data will be collected and validated in accordance with COMAR 26.11.01.10, COMAR 26.11.01.11 and COMAR 26.11.31.	The alarm points have been set to provide the operators with an early warning of potential ESP malfunction.

2. Verification of Operational Status (new or modified equipment)	COM data availability requirements are continuous data availability excluding audit and check periods and malfunctions that are corrected within two hours each day. CEM downtime up to 10% of operating time may initiate follow-up by MDE per COMAR 26.11.31.	Continuous monitoring will detect deviations from normal operating conditions of the power management system.
3. QA/QC Practices and Criteria	COM QA/QC procedures are consistent with the applicable requirements of COMAR 26.11.01.10, COMAR 26.11.01.11 and COMAR 26.11.31.	Calibration, maintenance and operation of the power management system in accordance with specifications.
4. Monitoring Frequency	Opacity is measured on a continuous basis with the exception of periods when the fans are shut off and there is no flame in the boiler. Data from the backup monitoring system and ESP power management system will be used to indicate normal ESP performance during QA/QC periods or monitor malfunctions.	The power management system parameters will be monitored recorded at least four times within each operating hour.
5. Data Collection Procedures	Opacity data is collected in a certified Data Acquisition System (DAS) and is archived for at least five years.	The power management parameters are recorded using power management system DAS and electronically archived for at least 90 days, hard copy of event data will be stored for five years.
6. Averaging Period	One-minute average data is collected and stored. Three hour block averages are calculated and stored based on the minute-by-minute data, for use as a compliance surrogate of Method 5 based in PM mass emission limits.	The power management alarm setting is set by the power management system OEM guidelines. So long as the ESP is being operated normally, the primary indicator (opacity) will be relied upon to indicate continuous compliance with the PM standard.

Table IV – 9	
9.0	**Emissions Unit Number(s): FSC-HAW-CT: Combustion Turbine** **FSC-HAW-CT**: H.A. Wagner combustion turbine is No. 2 oil fired combustion turbine used to supply "black start" capability to H.A. Wagner and for peaking operation. [**4-0007]**
9.1	**Applicable Standards/Limits:** A. Control of Visible Emissions **COMAR 26.11.09.05A(2)** – Fuel Burning Equipment "Areas III and IV. In Areas III and IV, a person may not cause or permit the

Table IV – 9	
	discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers except that, for the purpose of demonstrating compliance using COM data, emissions that are visible to a human observer are those that are equal to or greater than 10 percent opacity." **COMAR 26.11.09.05A(3) -** Exceptions. "Section A(1) and (2) of this regulation do not apply to emissions during load changing, soot blowing, startup, or adjustments or occasional cleaning of control equipment if: (a) The visible emissions are not greater than 40 percent opacity; and The visible emissions do not occur for more than 6 consecutive minutes in any sixty minute period." B. Control of Sulfur Oxides Emissions (1) **COMAR 26.11.09.07**: Control of Sulfur Oxides From Fuel Burning Equipment. "A. Sulfur Content Limitations for Fuel. A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitations: (2) In Areas III and IV: (a) All solid fuels, 1.0 percent; **(b) Distillate fuel oils, 0.3 percent;** (c) Residual fuel oils, 1.0 percent. C. Control of Nitrogen Oxides Emissions **COMAR 26.11.09.08G** – Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 percent or less and Combustion Turbines with a Capacity Factor Greater than 15 percent. (1) A person who owns or operates fuel-burning equipment with a capacity factor (as defined in 40 CFR Part 72.2) of 15 percent or less shall: (a) Provide certification of the capacity factor of the equipment to the Department in writing; (b) For fuel-burning equipment that operates more than 500 hours during a calendar year, perform a combustion analysis and optimize combustion at least once annually; (c) Maintain the results of the combustion analysis and any stack tests at the site for at least 2 years and make these results available to the Department and the EPA upon request; (d) *Not Applicable*, and (e) *Not Applicable*. "
9.2	**Testing Requirements:** A. Control of Visible Emissions

Table IV – 9	
	See Monitoring Requirement B. Control of Sulfur Oxides Emissions See Monitoring Requirement. C. Control of Nitrogen Oxides Emissions The Permittee shall perform a combustion analysis and optimize combustion at least once annually when hours of operation exceed 500 during the calendar year. [**Reference: COMAR 26.11.09.08G(1)(b)]**
9.3	**Monitoring Requirements:** A. Control of Visible Emissions The Permittee shall verify that there are no visible emissions when burning No. 2 fuel oil. An observer shall perform an EPA Reference Method 9 observation of stack emissions for an 18-minute period at least once for every 168 hours block of operation on oil or at a minimum once per calendar year. The Permittee shall perform the following, if emissions are visible to human observer: (a) inspect combustion control system and combustion turbine operations, (b) perform all necessary adjustments and/or repairs to the combustion turbine within 48 hours of operation so that visible emissions are eliminated; and (c) document in writing the results of inspections, adjustments and/or repairs to the combustion turbine. After 48 hours of operation if the required adjustments and/or repairs had not eliminated the visible emissions, the Permittee shall perform another Method 9 observation once daily when the combustion turbine is operating on No.2 fuel oil for 18 minutes until corrective action have eliminated visible emissions. **[Reference: COMAR 26.11.03.06C]**. B. Control of Sulfur Oxides Emissions The Permittee shall obtain fuel supplier certification stating that the fuel oil is in compliance with the sulfur content in the fuel limitation or obtain sulfur in fuel analyses of oil that is representative of the oil burned. **[Reference: COMAR 26.11.03.06C]**. C. Control of Nitrogen Oxides Emissions The Permittee shall calculate the capacity factor of the combustion turbine for each calendar year within 30 days after the end of each year.

Table IV – 9	
	[Reference: COMAR 26.11.03.06C]
9.4	**Record Keeping Requirements:** **Note:** All records must be maintained for a period of at least 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)]** A. Control of Visible Emissions The Permittee shall maintain records of the results of visual emissions observations for a period of at least 5 years. [**Reference: COMAR 26.11.03.06C]** B. Control of Sulfur Oxides Emissions The Permittee shall retain fuel supplier certifications stating that the fuel oil is in compliance with the sulfur content in the fuel limitation or the sulfur in fuel analyses for at least 5 years. **[Reference: COMAR 26.11.03.06C].** C. Control of Nitrogen Oxides Emissions The Permittee shall maintain the following: 1. Records of the calculated capacity factors; 2. Records of hours of operation; and 3. Records of the results of combustion analysis performed if the hours of operation exceed 500. **[Reference: COMAR 26.11.09.08G(1)(c) & COMAR 26.11.03.06C]**
9.5	**Reporting Requirements:** A. Control of Visible Emissions The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, "Report of Excess Emissions and Deviations." [**Reference: COMAR 26.11.03.06C].** B. Control of Sulfur Oxides Emissions The Permittee shall submit fuel certification report or fuel analyses if requested by the Department. **[Reference: COMAR 26.11.03.06C]** C. Control of Nitrogen Oxides Emissions The Permittee shall provide certification of the capacity factor of the equipment to the Department in writing by April 1st of the following calendar year. [**Reference: COMAR 26.11.09.08G(1)(a) & COMAR 26.11.03.06C]**

"A permit shield shall cover the applicable requirements identified for the emissions unit(s) listed in the table above."

Table IV – 10	
10.0	**Emissions Unit Number(s): FSC-HAW-MH** The H.A. Wagner material handling system consists of various equipment and processes to transport coal, fly ash, hydrated lime or equivalent, powdered activated carbon and other materials. There are facilities to mix coal with additives to reduce stack emissions. Equipment and processes may include unloading scoops, transfer point, storage piles, silos, bin vents, and other material handling equipment. **[6-1144]**
10.1	**Applicable Standards/Limits:** A. Control of Particulate Matter Emissions **1. COMAR 26.11.06.03B**. - Particulate Matter from Confined Sources. "(**2**) Areas III and IV. (**a**) A person may not cause or permit to be discharged into the outdoor atmosphere from any other installation, particulate matter in excess of 0.03 gr/SCFD (68.7 mg/dscm)." The Permittee shall design the DSI sorbent storage silo bin vent filters to achieve a controlled emission rate of no more than 0.03 gr/SCFD. **[Reference: COMAR 26.11.02.02H]** **2. COMAR 26.11.06.03D -** Particulate Matter from Materials Handling and Construction. "A person may not cause or permit any material to be handled, transported, or stored, or a building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. These reasonable precautions shall include, but not be limited to, the following when appropriate as determined by the control officer: (1) Use of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land. (2) Application of asphalt, oil, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which can create airborne dusts. (3) Installation and use of hoods, fans, and dust collectors to enclose and vent the handling of dusty materials. Adequate containment methods shall be employed during sandblasting of buildings or other similar operations. (4) Covering, at all times when in motion, open-bodied vehicles transporting materials likely to create air pollution. Alternate means may be employed to achieve the same results as would covering the vehicles. (5) The paving of roadways and their maintenance in clean condition.

Table IV – 10	
	(6) The prompt removal from paved streets of earth or other material which has been transported there by trucks or earth moving equipment or erosion by water." B. NSPS **40 CFR Part 60,Subpart Y**—Standards of Performance for Coal Preparation and Processing Plants **§60.254** - Standards for coal processing and conveying equipment, coal storage systems, transfer and loading systems, and open storage piles. "(b) On and after the date on which the performance test is conducted or required to be completed under §60.8, whichever date comes first, an owner or operator of any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, reconstructed, or modified after April 28, 2008, must meet the requirements in paragraphs (b)(1) through (3) of this section, as applicable to the affected facility. (1) Except as provided in paragraph (b)(3) of this section, the owner or operator must not cause to be discharged into the atmosphere from the affected facility any gases which exhibit 10 percent opacity or greater. (2) The owner or operator must not cause to be discharged into the atmosphere from any mechanical vent on an affected facility gases which contain particulate matter in excess of 0.023 g/dscm (0.010 gr/dscf). (3) Equipment used in the loading, unloading, and conveying operations of open storage piles are not subject to the opacity limitations of paragraph (b)(1) of this section." **Note:** *The limits in this section only apply to the four (4) new coal conveyors that transport coal to and from the new additive mixing facility.* C. CPCN No. 9338, **Condition B-VI-3** The Permittee shall apply a chemical; dust suppressant on an as needed basis to the sub bituminous coal storage pile in the coal yard to reduce fugitive PM emissions. The Permittee shall apply the chemical dust suppressant in accordance with manufacturer's recommended application instructions. A dust suppressant shall also be applied , as needed to reduce fugitive PM emissions, to the following sub bituminous coal transfer points: Belt 1 to Belt 2 (barge unloading); Belt 2 to Belt 3; Belt 3 to MB Belt 3; Under-pile Syntron to MC Belt; MC Belt to Bradford Breaker; Bradford Breaker to D Belt; Conveyor D to Pug Mill Feed Conveyor (or F Belt); Pug Mill Product Conveyor to Conveyor F; and F Belt to G Belt or M Belt.
10.2	**Testing Requirements:**

Table IV – 10	
	A. Control of Particulate Matter Emissions **1.** See Monitoring Requirement. **2**. See Record Keeping Requirements. B. NSPS: **§60.255** - Performance tests and other compliance requirements. "(**b**) An owner or operator of each affected facility that commenced construction, reconstruction, or modification after April 28, 2008, must conduct performance tests according to the requirements of §60.8 and the methods identified in §60.257 to demonstrate compliance with the applicable emissions standards in this subpart as specified in paragraphs (b)(1) and (2) of this section. (2) For each affected facility subject to an opacity standard, an initial performance test must be performed. Thereafter, a new performance test must be conducted according to the requirements in paragraphs (b)(2)(i) through (iii) of this section, as applicable, except as provided for in paragraphs (e) and (f) of this section. Performance test and other compliance requirements for coal truck dump operations are specified in paragraph (h) of this section. (i) If any 6-minute average opacity reading in the most recent performance test exceeds half the applicable opacity limit, a new performance test must be conducted within 90 operating days of the date that the previous performance test was required to be completed. (ii) If all 6-minute average opacity readings in the most recent performance test are equal to or less than half the applicable opacity limit, a new performance test must be conducted within 12 calendar months of the date that the previous performance test was required to be completed. (iii) An owner or operator of an affected facility continuously monitoring scrubber parameters as specified in §60.256(b)(2) is exempt from the requirements in paragraphs (b)(2)(i) and (ii) if opacity performance tests are conducted concurrently with (or within a 60-minute period of) PM performance tests." "(**c**) If any affected coal processing and conveying equipment (*e.g.,* breakers, crushers, screens, conveying systems), coal storage systems, or coal transfer and loading systems that commenced construction, reconstruction, or modification after April 28, 2008, are enclosed in a building, and emissions from the building do not exceed any of the standards in §60.254 that apply to the affected facility, then the facility shall be deemed to be in compliance with such standards." C. CPCN No. 9338

Table IV – 10	
	See Monitoring Requirements.
10.3	**Monitoring Requirements**: A. Control of Particulate Matter Emissions **1**. The Permittee shall prepare and maintain a plan that contains an explanation of the reasonable precautions or best management practices (BMP) Plan that will be used to prevent particulate matter from becoming airborne. The Permittee shall update the BMP Plan, as required by the initial Part 70 permit for this facility when a revision is needed to ensure that reasonable precautions will be used to prevent particulate matter from this equipment from becoming airborne and that adequate inspection will be conducted and documented. The BMP shall include provisions for routine inspections of emission sources and controls, corrective measures, and recordkeeping for such. The Permittee shall perform a monthly inspection of the operation to verify that the reasonable precautions (BMPs) are being implemented. During the monthly inspection, the Permittee shall perform a visual observation for a minute period of the emissions points of the ash handling and solid fossil fuel handling systems to determine whether particulate matter is becoming airborne and if additional precautions are needed. The monthly inspection shall be performed at a time that the ash handling and solid fossil fuel handling systems are transferring material. **[Reference: COMAR 26.11.03.06C.]** **2**. See Record Keeping Requirements. B. NSPS See Record Keeping Requirements. C. CPCN No. 9338 The Permittee shall perform a monthly inspection of the material handling transfer points and operations to verify that the reasonable precautions (e.g. BMPs) are being implemented. During the monthly inspection, the Permittee shall perform a visual observation for a minute period of the emissions points of the solid fossil fuel handling system and the ash handling system to determine whether PM is becoming airborne and if additional precautions are needed. The monthly inspection shall be performed at a time that the solid fossil fuel handling and ash handling systems are transferring material.

Table IV – 10	
	[Reference: CPCN No. 9338 Condition B-VI-5 and COMAR 26.11.02.02H]
10.4	**Record Keeping Requirements:** A. Control of Particulate Matter Emissions **1**. The Permittee shall keep the results of the monthly inspections for a period of five (5) years. The Permittee shall maintain the written reasonable precautions (BMP) at the facility and make it available to the Department upon request. **[Reference: COMAR 26.11.03.06C]** **2**. The Permittee shall maintain records necessary to demonstrate compliance with the filterable PM emission rate from the DSI sorbent storage silo bin vent filters, including equipment specifications, and make these records available to the Department upon request. **[Reference: COMAR 26.11.02.02H]** B. NSPS **§60.258** - Reporting and **Recordkeeping**. "(**a**) The owner or operator of a coal preparation and processing plant that commenced construction, reconstruction, or modification after April 28, 2008, shall maintain in a logbook (written or electronic) on-site and make it available upon request. The logbook shall record the following: (1) The manufacturer's recommended maintenance procedures and the date and time of any maintenance and inspection activities and the results of those activities. Any variance from manufacturer recommendation, if any, shall be noted. (2) The date and time of periodic coal preparation and processing plant visual observations, noting those sources with visible emissions along with corrective actions taken to reduce visible emissions. Results from the actions shall be noted. (3) The amount and type of coal processed each calendar month. (4) The amount of chemical stabilizer or water purchased for use in the coal preparation and processing plant. (5) Monthly certification that the dust suppressant systems were operational when any coal was processed and that manufacturer's recommendations were followed for all control systems. Any variance from the manufacturer's recommendations, if any, shall be noted. (6) Monthly certification that the fugitive coal dust emissions control plan was implemented as described. Any variance from the plan, if any, shall be noted. A copy of the applicable fugitive coal dust emissions control plan and any letters from the Administrator providing approval of any

Table IV – 10	
	alternative control measures shall be maintained with the logbook. Any actions, e.g., objections, to the plan and any actions relative to the alternative control measures, e.g., approvals, shall be noted in the logbook as well." C. CPCN No. 9338 The Permittee shall update the facility's existing plan that contains an explanation of the reasonable precautions or BMPs that will be used to prevent particulate matter from becoming airborne. The updated BMPs shall also document procedures for chemical dust suppressant application. The Permittee shall update the BMP within 6 month of the CPCN issuance. The Permittee shall keep the results of the monthly inspections for a period of five (5) years. The Permittee shall maintain the written reasonable precautions (e.g, BMPs) at the facility and make it available to the Department upon request. **[Reference: CPCN No. 9338 Condition B-VI-4, 6, 7 and COMAR 26.11.02.02H]**
10.5	**Reporting Requirements:** A. Control of Particulate Matter Emissions **1**. The Permittee shall report the results of the inspections and provide a copy of the current BMP plan upon request by the Department. **[Reference: COMAR 26.11.03.06C]** **2.** See Record Keeping Requirements**.** B. NSPS **§60.258** - **Reporting** and recordkeeping "(**b**) For the purpose of reports required under section 60.7(c), any owner operator subject to the provisions of this subpart also shall report semiannually periods of excess emissions as follow: (**3**) All 6-minute average opacities that exceed the applicable standard." "(**d**) After July 1, 2011, within 60 days after the date of completing each performance evaluation conducted to demonstrate compliance with this subpart, the owner or operator of the affected facility must submit the test data to EPA by successfully entering the data electronically into EPA's WebFIRE data base available at*http://cfpub.epa.gov/oarweb/index.cfm?action=fire.main.* For performance tests that cannot be entered into WebFIRE (*i.e.,* Method 9 of

Table IV – 10	
	appendix A-4 of this part opacity performance tests) the owner or operator of the affected facility must mail a summary copy to United States Environmental Protection Agency; Energy Strategies Group; 109 TW Alexander DR; mail code: D243-01; RTP, NC 27711." C. CPCN No. 9338 The Permittee shall report the results of the inspections and provide a copy of the current BMP plan upon request by the Department. **[Reference: CPCN No. 9338 Condition B-VI-8 and COMAR 26.11.02.02H]**

"A permit shield shall cover the applicable requirements identified for the emissions unit(s) listed in the table above."

Table IV - 11: NO_X RACT	
11.0	**Emissions Unit Number(s): FSC-BS-Unit1 & FSC-BS-Unit2; FSC-HAW-Unit1 & FSC-HAW-Unit4; FSC-HAW-Unit2 & FSC-HAW-Unit3 (Cont'd)** **FSC-BS-Unit1 and FSC-BS-Unit2:** Two (2) solid fossil fuel-fired generating units with No.2 oil used for start-up purposes. These Units are also capable of re-burning high carbon fly ash with the solid fuel/coal that has been recovered from the fly ash separation equipment on site. [**3-0015 & 3-0016]** **FSC-HAW-Unit1:** H.A. Wagner Unit 1 is a No. 6 oil or natural gas fired unit [**5-0469]** **FSC-HAW-Unit4:** H.A. Wagner Unit 4 is a No. 6 oil fired unit with natural gas fired used for start-up. [**4-0017**] **FSC-HAW-Unit2:** H.A. Wagner Unit 2 is a coal fired unit with natural gas used for start-up. **[3-0017]** **FSC-HAW-Unit3:** H.A. Wagner Unit 3 is a coal fired unit with natural gas used for start-up. **[3-0003]**
11.1	**Applicable Standards/Limits:** Control of Nitrogen Oxides **NO_X RACT Requirements** **NO_X RACT Averaging Plan Consent Decree dated February 18, 2016 and COMAR 26.11.09.08** which requires that the Fort Smallwood Road Complex (Brandon Shores Unit 1, Brandon Shores Unit 2, H.A. Wagner Unit 1, H.A. Wagner Unit 2, H.A. Wagner Unit 3 and H.A. Wagner Unit 4)

Table IV - 11: NO_X RACT

meet the following NO_X RACT limits:

Table 1 – Summary of NO_X RACT Averaging Plan Limits (2016)		
Facility	Unit	RACT Limit, lb/MMBtu
Brandon Shores	1	0.5
	2	0.5
H.A. Wagner	1	0.3
	2	0.5
	3	0.5
	4	0.3

Individual unit compliance with NO_X RACT requirements will be determined daily on a 30-day rolling average basis. Annual compliance will also be demonstrated by showing that annual mass emissions from the units in the averaging plan are less than 80% of the mass emissions that would have been allowed on an individual basis.

The following methodology will be used to calculate 30-day rolling emissions and determine compliance:

(1) Calculate daily system and NO_X RACT emission rates:

$$ER_{System} = \sum (ER_i * (Hl_i / Hl_{Total}))$$
$$ER_{RACT} = \sum (ER_{RACT,i} * (Hl_i / Hl_{Total}))$$

where:

ER_{System} = System average emission rate, lb/MMBtu
ER_{RACT} = System average NO_X RACT limit, lb/MMBtu
ER_i = Daily emission rate for unit i, lb/MMBtu
$ER_{RACT,i}$ = Daily NO_X RACT limit for unit i, lb/MMBtu
Hl_i = Daily heat input for unit i, MMBtu
Hl_{Total} = Daily heat for all of the units = $\sum Hl_i$, MMBtu

(2) After 30 days, calculate 30-day rolling emission rate for the system and the NO_X RACT:

$$ER_{30\ Day\ System} = (\sum (ER_{System})) / 30$$
$$ER_{30\ Day\ RACT} = (\sum (ER_{RACT})) / 30$$

where:

$ER_{30\ Day\ System}$ = 30-day rolling system average emission rate, MMBtu/lb
$ER_{30\ Day\ RACT}$ = 30-day rolling system average emission rate, MMBtu/lb

Table IV - 11: NO_X RACT	
	(3) Calculate mass emissions on a daily basis: $NO_{X\ 30\ Day\ System} = ER_{30\ Day\ System} * HI_{Total} / 2000$ $NO_{X\ RACT} = ER_{30\ Day\ RACT} * HI_{Total} / 2000$ where: $NO_{X\ 30\ Day\ System}$ = NO_X mass emissions based on a 30-day rolling system average emission rate, tons $NO_{X\ RACT}$ = NO_X mass emissions based on a 30-day rolling RACT limit, tons (4) Determine compliance with NO_X RACT: $NO_{X\ System} < NO_{X\ RACT}$ In addition on a yearly basis Raven will certify that the NO_X mass emissions for the six units included in the averaging plan did not exceed 80% of the emissions allowable under the NO_X RACT limits. $NO_{X\ Annual\ System} < 0.80 * NO_{XRACT\ Total}$ where: $NO_{X\ Annual\ System}$ = Annual NO_X mass emissions for the units in the averaging plan $NO_{X\ RACT\ Total}$ = Allowable NO_X mass emissions based on the NO_X RACT limits
11.2	**<u>Testing Requirements</u>:** <u>Control of Nitrogen Oxides</u> See Monitoring Requirements.
11.3	**<u>Monitoring Requirements:</u>** <u>Control of Nitrogen Oxides</u> All the units included in the Averaging Plan have continuous emissions monitors (CEM) for monitoring NO_X emissions. These units follow the operations, maintenance, recordkeeping and reporting requirements contained in 40 CFR Part 75. [**Reference: Consent Agreement dated February 18, 2016**] The Permittee shall operate, calibrate, and maintain a certified NO_X CEM or an alternative NO_X monitoring method approved by the Department and the EPA on each installation. **[Reference: COMAR 26.11.09.08C(3)]**

Table IV - 11: NO_X RACT	
	The Permittee certify CEMs in accordance with Part 75, Appendix A. **[Reference: COMAR 26.11.09.08B(2)(b)]**
11.4	**Record Keeping Requirements:** Control of Nitrogen Oxides The Permittee shall maintain at each of the Generating Units records and information adequate to verify the calculations used to demonstrate compliance with the Averaging Plan's requirements, and shall make these records and information available to the Department upon request. The Permittee shall maintain all records necessary to comply with the data reporting requirements of COMAR 26.11.01.11E). **[Reference: COMAR 26.11.01.11A(2) and COMAR 26.11.01.11E]**
11.5	**Reporting Requirements:** Control of Nitrogen Oxides Quarterly reports will be submitted within 30 days of the end of each reporting quarter summarizing compliance with the Averaging Plan. [**Reference: Consent Agreement dated February 18, 2016**] The Permittee shall submit quarterly emission reports of CEM data to the Department on or before the thirtieth day of the month following the end of each calendar quarter." **[Reference: COMAR 26.11.09.08K(1)]** The Permittee shall comply with the reporting requirements of COMAR 26.11.01.11E. (Record Keeping and Reporting Requirements). **[Reference: COMAR 26.11.01.11E]**

"A permit shield shall cover the applicable requirements identified for the emissions unit(s) listed in the table above."

Please Note: On June 29, 2015, the Supreme Court issued an opinion in *Michigan et al v. Environmental Protection Agency*. The Supreme Court's decision remands the MATS rule to EPA and returns the matter to the U.S. Court of Appeals for the D.C. Circuit for further proceedings. As of the issuance of this permit, the MATS rule is in effect. The Supreme Court decision in *Michigan* requires the EPA to undertake additional proceedings for the limited purpose of evaluating costs for its "appropriate and necessary" finding which preceded the MATS rule.
Until and unless the MATS rule is stayed and/or vacated by the D.C. Circuit, MATS related conditions in the Title V permit apply. If the MATS rule is stayed and/or vacated or partially stayed and/or vacated then the affected conditions in the Title V permit will be revised/removed accordingly.

On April 6, 2016, EPA published a final rule in the Federal Register which contains Technical Corrections to the MATS rule. These corrections have been incorporated into the Title V permit.

Table IV – 12: MACT Subpart UUUUU	
12.0	**Emissions Unit Number(s): FSC-BS-Unit1 & FSC-BS-Unit2; FSC-HAW-Unit1 & FSC-HAW-Unit4 ; FSC-HAW-Unit2 & FSC-HAW-Unit3 (Cont'd)** **FSC-BS-Unit1 and FSC-BS-Unit2:** Two (2) solid fossil fuel-fired generating units with No.2 oil used for start-up purposes. These Units are also capable of re-burning high carbon fly ash with the solid fuel/coal that has been recovered from the fly ash separation equipment on site. [**3-0015 & 3-0016]** **FSC-HAW-Unit1:** H.A. Wagner Unit 1 is a No. 6 oil or **natural gas** fired unit [**5-0469]** ***FSC-HAW-Unit1 operates as a natural gas fired unit in accordance with 40CFR 63.9983(c) and is therefore not subject to the MATS rule.*** ***"§63.9983 - Are any EGUs not subject to this subpart?*** *The types of electric steam generating units listed in paragraphs (a) through (d) of this section are not subject to this subpart.* *(c) Any electric utility steam generating unit that has the capability of combusting more than 25 MW of coal or oil but does not meet the definition of a coal-or oil fired EGU because it did not fire sufficient coal or oil to satisfy the average annual heat input requirement set forth in the definitions for coal-fired and oil-fired EGUs in §63.10042. Heat input means heat derived from combustion of fuel in an EGU and does not include the heat derived from preheated combustion air, recirculated flue gases or exhaust gases from other sources (such as stationary gas turbines, internal combustion engines, and industrial boilers)."* **FSC-HAW-Unit4:** H.A. Wagner Unit 4 is a No. 6 oil fired unit with natural gas fired used for start-up. [**4-0017**]. **FSC-HAW- Unit4 operates as limited-use liquid oil fired unit and is only subject to tune-up requirements.** *Limited-use liquid oil-fired subcategory* means an oil-fired electric utility steam generating unit with an annual capacity factor of less than 8 percent of its maximum or nameplate heat input, whichever is greater, averaged over a 24-month block contiguous period commencing **[§63.10042]** **FSC-HAW-Unit2:** H.A. Wagner Unit 2 is a coal fired unit with natural gas used for start-up. **[3-0017]** **FSC-HAW-Unit3:** H.A. Wagner Unit 3 is a coal fired unit with natural gas used for start-up. **[3-0003]** ***Note:*** *In a letter dated July 11, 2014, the Department granted an*

Table IV – 12: MACT Subpart UUUUU	
	*extension to the compliance deadline in 40 CFR, Part 63, Subpart UUUUU for **FSC-HAW-Unit3** to April 16, 2016.*
12.1	**Applicable Standards/Limits:** Control of HAP Emissions **40 CFR Part 63, Subpart UUUUU—National Emission Standards for Hazardous Air Pollutants: Coal and Oil-Fired Electric Utility Steam Generating Units.** **§63.9980** - What is the purpose of this subpart? This subpart establishes national emission limitations and work practice standards for hazardous air pollutants (HAP) emitted from coal- and oil-fired electric utility steam generating units (EGUs) as defined in §63.10042 of this subpart. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations. *Electric utility steam generating unit (EGU) means a fossil fuel-fired combustion unit of more than 25 megawatts electric (MWe) that serves a generator that produces electricity for sale. A fossil fuel-fired unit that cogenerates steam and electricity and supplies more than one-third of its potential electric output capacity and more than 25 MWe output to any utility power distribution system for sale is considered an electric utility steam generating unit.* **§63.9981** - Am I subject to this subpart? "You are subject to this subpart if you own or operate a **coal-fired EGU** or an **oil-fired** EGU as defined in §63.10042 of this subpart." **§63.9984** - When do I have to comply with this subpart? "(b) If you have **an existing** EGU, you must comply with this subpart no later than **April 16, 2015**." "(c) You must meet the notification requirements in §63.10030 according to the schedule in §63.10030 and in subpart A of this part. Some of the notifications must be submitted before you are required to comply with the emission limits and work practice standards in this subpart." "(f) You must demonstrate that compliance has been achieved, by conducting the required performance tests and other activities, no later than 180 days after the applicable date in paragraph (a), (b), (c), (d), or (e) of this section." **§63.9991** - What emission limitations, work practice standards, and operating limits must I meet? "(a) You must meet the requirements in paragraphs (a)(1) and (2) of this section. You must meet these requirements at all times. (1) You must meet each emission limit and work practice standard in Table

Table IV – 12: MACT Subpart UUUUU

1 through 3 to this subpart that applies to your EGU, for each EGU at your source, except as provided under §63.10009.
(2) You must meet each operating limit in Table 4 to this subpart that applies to your EGU.
(b) As provided in §63.6(g), the Administrator may approve use of an alternative to the work practice standards in this section.
(c) You may use the alternate SO_2 limit in Tables 1 and **2** to this subpart only if your EGU:
(1) Has a system using wet or dry flue gas desulfurization technology and SO_2 continuous emissions monitoring system (CEMS) installed on the EGU; and
(2) At all times, you operate the wet or dry flue gas desulfurization technology and the SO_2 CEMS installed on the EGU consistent with §63.10000(b)."

Table 2 to Subpart UUUUU of Part 63—Emission Limits for Existing EGUs
As stated in §63.9991, you must comply with the following applicable emission limits:[1]

If your EGU is in this subcategory	For the following pollutants	You must meet the following emission limits and work practice standards	Using these requirements, as appropriate (e.g., specified sampling volume or test run duration) and limitations with the test methods in Table 5
1. **Coal-fired unit** not low rank virgin coal **BS-Unit1 & BS-Unit2 HAW-Unit2 & Unit3**	a. Filterable particulate matter (**PM**)	3.0E-2 lb/MMBtu or 3.0E-1 lb/MWh.[2]	Collect a minimum of 1 dscm per run. **Please Note: PM CEMs will be used for FSC-BS-Units1&2**
	b. Hydrogen chloride (**HCl**)	2.0E-3 lb/MMBtu or 2.0E-2 lb/MWh.	For Method 26A, collect a minimum of 0.75 dscm per run; for Method 26, collect a minimum of 120 liters per run.
			For ASTM D6348-03[3] or Method 320, sample for a minimum of 1 hour.
	c. Mercury (**Hg**)	1.2E0 lb/TBtu or 1.3E-2 lb/GWh	**Hg CEMS**.

[1]For LEE emissions testing for total PM, total HAP metals, individual HAP metals, HCl, and HF, the required minimum sampling volume must be increased nominally by a factor of two.
[2]Gross output.
[3]Incorporated by reference, see §63.14.
[4]You may not use the alternate SO_2 limit if your EGU does not have some form of FGD system and

Table IV – 12: MACT Subpart UUUUU	
	SO_2 CEMS installed. *General Compliance Requirements* **§63.10000 -** What are my general requirements for complying with this subpart? "(a) You must be in compliance with the emission limits and operating limits in this subpart. These limits apply to you at all times except during periods of startup and shutdown; however, for **coal-fired**, **liquid oil-fired**, or solid oil-derived fuel-fired EGUs, you are required to meet the work practice requirements, items 3 and 4, in Table 3 to this subpart during periods of startup or shutdown. (b) At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the EPA Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source." "(c)(1) For **coal-fired** units, IGCC units, and solid oil-derived fuel-fired units, initial performance testing is required for all pollutants, to demonstrate compliance with the applicable emission limits. (i) For a **coal-fired** or solid oil-derived fuel-fired EGU or IGCC EGU, you may conduct the initial performance testing in accordance with §63.10005(h), to determine whether the EGU qualifies as a low emitting EGU (LEE) for one or more applicable emissions limits, except as otherwise provided in paragraphs (c)(1)(i)(A) and (B) of this section; (A) Except as provided in paragraph (c)(1(i)(C) of this section, you may not pursue the LEE option if your coal-fired, IGCC, or solid oil-derived fuel-fired EGU is equipped with a main stack and a bypass stack or bypass duct configuration that allows the effluent to bypass any pollutant control device (B) You may not pursue the LEE option for Hg if your coal-fired, solid oil-derived fuel-fired EGU or IGCC EGU is new. (ii) *Not Applicable* (iii) *Not Applicable.* (iv) If your **coal-fired** or solid oil derived fuel-fired EGU or IGCC EGU does not qualify as a LEE for total non-mercury HAP metals, individual non-mercury HAP metals, or filterable particulate matter (PM), you must demonstrate compliance through an initial performance test and you must monitor continuous performance through either use of a particulate matter continuous parametric monitoring system (PM CPMS), **a PM CEMS**, or, for

Table IV – 12: MACT Subpart UUUUU	
	an existing EGU, compliance performance testing repeated quarterly. (v) If your **coal-fired** or solid oil-derived fuel-fired EGU does not qualify as a LEE for hydrogen chloride (HCl), you may demonstrate initial and continuous compliance through use of an HCl CEMS, installed and operated in accordance with Appendix B to this subpart. As an alternative to HCl CEMS, you may demonstrate initial and continuous compliance by conducting an initial and periodic quarterly performance stack test for HCl. **If your EGU uses wet or dry flue gas desulfurization technology (this includes limestone injection into a fluidized bed combustion unit), you may apply a second alternative to HCl CEMS by installing and operating a sulfur dioxide (SO_2) CEMS installed and operated in accordance with part 75 of this chapter to demonstrate compliance with the applicable SO_2 emissions limit.** (vi) If your coal-fired or solid oil-derived fuel-fired EGU does not qualify as a LEE for Hg, you must demonstrate initial and continuous compliance through use of a Hg CEMS or a sorbent trap monitoring system, in accordance with appendix A to this subpart. (A) *Not Applicable*. (B) *Not Applicable*." "(c)(2) For **liquid oil-fired EGUs**, except limited use liquid oil-fired EGUs, initial performance testing is required for all pollutants, to demonstrate compliance with the applicable emission limits. (i) For an **existing liquid oil-fired unit**, you may conduct the performance testing in accordance with §63.10005(h), to determine whether the unit qualifies as a LEE for one or more pollutants. For a qualifying LEE for Hg emissions limits, you must conduct a 30-day performance test using Method 30B at least once every 12 calendar months to demonstrate continued LEE status. For a qualifying LEE of any other applicable emissions limits, you must conduct a performance test at least once every 36 calendar months to demonstrate continued LEE status. (ii) If your liquid oil-fired unit does not qualify as a LEE for total HAP metals (including mercury), individual metals (including mercury), or filterable PM you must demonstrate compliance through an initial performance test and you must monitor continuous performance through either use of a PM CPMS, a PM CEMS, or, for an existing EGU, performance testing conducted quarterly. (iii) If your existing liquid oil-fired unit does not qualify as a LEE for hydrogen chloride (HCl) or for hydrogen fluoride (HF), you may demonstrate initial and continuous compliance through use of an HCl CEMS, an HF CEMS, or an HCl and HF CEMS, installed and operated in accordance with Appendix B to this rule. As an alternative to HCl CEMS, HF CEMS, or HCl and HF CEMS, you may demonstrate initial and

Table IV – 12: MACT Subpart UUUUU	
	continuous compliance through periodic quarterly performance testing and parametric monitoring for HCl and HF. If you choose to use quarterly performance testing and parametric monitoring, then you must also develop a site-specific monitoring plan that identifies the CMS you will use to ensure that the operations of the EGU remains consistent with those during the performance test. As another alternative, you may measure or obtain, and keep records of, fuel moisture content; as long as fuel moisture does not exceed 1.0 percent by weight, you need not conduct other HCl or HF monitoring or testing. **(iv) If your unit qualifies as a limited-use liquid oil-fired as defined in §63.10042, then you are not subject to the emission limits in Tables 1 and 2, but you must comply with the performance tune-up work practice requirements in Table 3. (This applies to FSC-HAW-Unit4)** "(d)(1) If you demonstrate compliance with any applicable emissions limit through use of a continuous monitoring system (CMS), where a CMS includes a continuous parameter monitoring system (CPMS) as well as a **continuous emissions monitoring system (CEMS)**, you must develop a site-specific monitoring plan and submit this site-specific monitoring plan, if requested, at least 60 days before your initial performance evaluation (where applicable) of your CMS. This requirement also applies to you if you petition the Administrator for alternative monitoring parameters under §63.8(f). This requirement to develop and submit a site-specific monitoring plan does not apply to affected sources with existing monitoring plans that apply to CEMS and CPMS prepared under appendix B to part 60 or part 75 of this chapter, and that meet the requirements of §63.10010. Using the process described in §63.8(f)(4), you may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in this paragraph of this section and, if approved, include those in your site-specific monitoring plan. The monitoring plan must address the provisions in paragraphs (d)(2) through (5) of this section. (2) The site-specific monitoring plan shall include the information specified in paragraphs (d)(5)(i) through (d)(5)(vii) of this section. Alternatively, the requirements of paragraphs (d)(5)(i) through (d)(5)(vii) are considered to be met for a particular CMS or sorbent trap monitoring system if: (i) The CMS or sorbent trap monitoring system is installed, certified, maintained, operated, and quality-assured either according to part 75 of this chapter, or appendix A or B to this subpart; and (ii) The recordkeeping and reporting requirements of part 75 of this chapter, or appendix A or B to this subpart that pertain to the CMS are met. (3) If requested by the Administrator, you must submit the monitoring plan (or relevant portion of the plan) at least 60 days before the initial

Table IV – 12: MACT Subpart UUUUU	
	performance evaluation of a particular CMS, except where the CMS has already undergone a performance evaluation that meets the requirements of §63.10010 (e.g., if the CMS was previously certified under another program). (4) You must operate and maintain the CMS according to the site-specific monitoring plan. (5) The provisions of the site-specific monitoring plan must address the following items: (i) Installation of the CMS or sorbent trap monitoring system sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device). See §63.10010(a) for further details. For PM CPMS installations, follow the procedures in §63.10010(h). (ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems. (iii) Schedule for conducting initial and periodic performance evaluations. (iv) Performance evaluation procedures and acceptance criteria (e.g., calibrations), including the quality control program in accordance with the general requirements of §63.8(d). (v) On-going operation and maintenance procedures, in accordance with the general requirements of §§63.8(c)(1)(ii), (c)(3), and (c)(4)(ii). (vi) Conditions that define a CMS that is out of control consistent with §63.8(c)(7)(i) and for responding to out of control periods consistent with §§63.8(c)(7)(ii) and (c)(8). (vii) On-going recordkeeping and reporting procedures, in accordance with the general requirements of §§63.10(c), (e)(1), and (e)(2)(i), or as specifically required under this subpart." "(e) As part of your demonstration of continuous compliance, you must perform periodic tune-ups of your EGU(s), according to §63.10021(e)." "(j) All air pollution control equipment necessary for compliance with any newly applicable emissions limits which apply as a result of the cessation or commencement or recommencement of operations that cause your EGU to meet the definition of an EGU subject to this subpart must be installed and operational as of the date your source ceases to be or becomes subject to this subpart." "(k) All monitoring systems necessary for compliance with any newly applicable monitoring requirements which apply as a result of the cessation or commencement or recommencement of operations that

Table IV – 12: MACT Subpart UUUUU

cause your EGU to meet the definition of an EGU subject to this subpart must be installed and operational as of the date your source ceases to be or becomes subject to this subpart. All calibration and drift checks must be performed as of the date your source ceases to be or becomes subject to this subpart. You must also comply with provisions of §§63.10010, 63.10020, and 63.10021 of this subpart. Relative accuracy tests must be performed as of the performance test deadline for PM CEMS, if applicable. Relative accuracy testing for other CEMS need not be repeated if that testing was previously performed consistent with CAA section 112 monitoring requirements or monitoring requirements under this subpart."

"(l) On or before the date an EGU is subject to this subpart, you must install, certify, operate, maintain, and quality assure each monitoring system necessary for demonstrating compliance with the work practice standards for PM or non-mercury HAP metals during startup periods and shutdown periods. You must collect, record, report, and maintain data obtained from these monitoring systems during startup periods and shutdown periods."

Table 3 to Subpart UUUUU of Part 63—Work Practice Standards
As stated in §§63.9991, you must comply with the following applicable work practice standards:

If your EGU is...	You must meet the following...
1. An **existing** EGU	Conduct a tune-up of the EGU burner and combustion controls at least each 36 calendar months, or each 48 calendar months if neural network combustion optimization software is employed, as specified in §63.10021(e).
3. A **coal-fired**, **liquid oil-fired** (excluding limited-use liquid oil-fired subcategory units), or solid oil-derived fuel-fired EGU **during startup** **BS-Unit1 & BS-Unit2 HAW-Unit2 & Unit3 will comply with paragraph (1).**	You have the option of complying using either of the following work practice standards. (1) If you choose to comply using paragraph (1) of the definition of "startup" in §63.10042, you must operate all CMS during startup. Startup means either the first-ever firing of fuel in a boiler for the purpose of producing electricity, or the firing of fuel in a boiler after a shutdown event for any purpose. Startup ends when any of the steam from the boiler is used to generate electricity for sale over the grid or for any other purpose (including on site use). For startup of a unit, you must use clean fuels as defined in §63.10042 for ignition. Once you convert to firing coal, residual oil, or solid oil-derived fuel, you must engage all of the applicable control technologies except dry scrubber and SCR systems. You must start your dry scrubber and SCR systems, if present, appropriately to comply with relevant standards applicable during normal operation. You must comply with all applicable emissions limits at all times except for periods that meet the

Table IV – 12: MACT Subpart UUUUU			
			applicable definitions of startup and shutdown in this subpart. You must keep records during startup periods. You must provide reports concerning activities and startup periods, as specified in §63.10011(g) and §63.10021(h) and (i).
			(2) If you choose to comply using paragraph (2) of the definition of "startup" in §63.10042, you must operate all CMS during startup. You must also collect appropriate data, and you must calculate the pollutant emission rate for each hour of startup.
			For startup of an EGU, you must use one or a combination of the clean fuels defined in §63.10042 to the maximum extent possible, taking into account considerations such as boiler or control device integrity, throughout the startup period. You must have sufficient clean fuel capacity to engage and operate your PM control device within one hour of adding coal, residual oil, or solid oil-derived fuel to the unit. You must meet the startup period work practice requirements as identified in §63.10020(e).
			Once you start firing coal, residual oil, or solid oil-derived fuel, you must vent emissions to the main stack(s). You must comply with the applicable emission limits beginning with the hour after startup ends. You must engage and operate your particulate matter control(s) within 1 hour of first firing of coal, residual oil, or solid oil-derived fuel.
			You must start all other applicable control devices as expeditiously as possible, considering safety and manufacturer/supplier recommendations, but, in any case, when necessary to comply with other standards made applicable to the EGU by a permit limit or a rule other than this Subpart that require operation of the control devices.
			…You must collect monitoring data during startup periods, as specified in §63.10020(a) and (e). You must keep records during startup periods, as provided in §§63.10032 and 63.10021(h).You must provide reports concerning activities and startup periods, as specified in §§63.10011(g), 63.10021(i), and 63.10031.
		4. A **coal-fired**, **liquid oil-fired** (excluding limited-use liquid oil-fired subcategory units), or solid oil-derived fuel-fired EGU **during shutdown**	You must operate all CMS during shutdown. You must also collect appropriate data, and you must calculate the pollutant emission rate for each hour of shutdown for those pollutants for which a CMS is used. While firing coal, residual oil, or solid oil-derived fuel during shutdown, you must vent emissions to the main stack(s) and operate all applicable control devices and continue to operate those control devices after the cessation of coal, residual oil, or solid oil-derived fuel being fed into the EGU and for as long as possible thereafter considering operational and safety concerns. In any case, you must operate your controls

Table IV – 12: MACT Subpart UUUUU

	when necessary to comply with other standards made applicable to the EGU by a permit limit or a rule other than this Subpart and that require operation of the control devices.
	If, in addition to the fuel used prior to initiation of shutdown, another fuel must be used to support the shutdown process, that additional fuel must be one or a combination of the clean fuels defined in §63.10042 and must be used to the maximum extent possible, taking into account consideration such as not compromising boiler or control device integrity.
	You must comply with all applicable emission limits at all times except during startup periods and shutdown periods at which time you must meet this work practice. You must collect monitoring data during shutdown periods, as specified in §63.10020(a). You must keep records during shutdown periods, as provided in §§63.10032 and 63.10021(h). Any fraction of an hour in which shutdown occurs constitutes a full hour of shutdown. You must provide reports concerning activities and shutdown periods, as specified in §§63.10011(g), 63.10021(i), and 63.10031.

§63.10009 - <u>May I use emissions averaging to comply with this subpart?</u>
"(a) *General eligibility.* (1) You may use emissions averaging as described in paragraph (a)(2) of this section as an alternative to meeting the requirements of §63.9991 for filterable PM, SO_2, HF, HCl, non-Hg HAP metals, or Hg on an EGU-specific basis if:
(i) You have more than one existing EGU in the same subcategory located at one or more contiguous properties, belonging to a single major industrial grouping, which are under common control of the same person (or persons under common control); and
(ii) You use CEMS (or sorbent trap monitoring systems for determining Hg emissions) or quarterly emissions testing for demonstrating compliance.
(2) You may demonstrate compliance by emissions averaging among the existing EGUs in the same subcategory, if your averaged Hg emissions for EGUs in the "unit designed for coal ≥8,300 Btu/lb" subcategory are equal to or less than 1.2 lb/TBtu or 1.3E-2 lb/GWh on a 30-boiler operating day basis or if your averaged emissions of individual, other pollutants from other subcategories of such EGUs are equal to or less than the applicable emissions limit in Table 2 to this subpart, according to the procedures in this section. Note that except for Hg emissions from EGUs in the "unit designed for coal ≥8,300 Btu/lb" subcategory, the averaging time for emissions averaging for pollutants is 30 days (rolling daily) using data from CEMS or a combination of data from CEMS and manual performance (LEE) testing. The averaging time for emissions averaging for the alternate Hg limit (equal to or less than 1.0 lb/TBtu or 1.1E-2 lb/GWh) from EGUs in

Table IV – 12: MACT Subpart UUUUU	

the "unit designed for coal ≥8,300 Btu/lb" subcategory is 90- boiler operating days (rolling daily) using data from CEMS, sorbent trap monitoring, or a combination of monitoring data and data from manual performance (LEE) testing. For the purposes of this paragraph, 30- (or 90-day) group boiler operating days is defined as a period during which at least one unit in the emissions averaging group operates on each of the 30 or 90 days. You must calculate the weighted average emissions rate for the group in accordance with the procedures in this paragraph using the data from all units in the group including any that operate fewer than 30 (or 90) days during the preceding 30 (or 90) group boiler days.

(i) You may choose to have your EGU emissions averaging group meet either the heat input basis (MMBtu or TBtu, as appropriate for the pollutant) or gross ~~electrical~~ output basis (MWh or GWh, as appropriate for the pollutant).

(ii) You may not mix bases within your EGU emissions averaging group.

(iii) You may use emissions averaging for affected units in different subcategories if the units vent to the atmosphere through a common stack (see paragraph (m) of this section).

(b) *Equations.* Use the following equations when performing calculations for your EGU emissions averaging group:

(1) Group eligibility equations.

$$WAER_m = \frac{\left[\sum_{j=1}^{p} Herm_j \times Rmm_j\right] + \sum_{k=1}^{m} Ter_k \times Rmt_k}{\left(\sum_{j=1}^{p} Rmm_j\right) + \sum_{k=1}^{m} Rmt_k} \qquad (Eq.\ 1a)$$

Where:

$WAER_m$ = Maximum Weighted Average Emission Rate in terms of lb/heat input or lb/gross output,

$Herm_{i,j}$ = hourly emission rate (*e.g.,* lb/MMBtu, lb/MWh) from CEMS or sorbent trap monitoring as determined during the initial compliance determination from EGU j,

Rmm_j = Maximum rated heat input, MMBtu/h, or maximum rated gross output, MWh/h, for EGU j,

p = number of EGUs in emissions averaging group that rely on CEMS,

Ter_k = Emissions rate (lb/MMBTU or lb/MWh) as determined during the initial compliance determination of EGU k,

Rmt_k = Maximum rated heat input, MMBtu/h, or maximum rated gross output, MWh/h, for EGU k, and

m = number of EGUs in emissions averaging group that rely on emissions testing.

$$WAER_m = \frac{\sum \left[\left(\sum_{j=1}^{p} Herm_{i,j}\right) \times Smm_j \times Cfm_{j\,j}\right] + \sum_{k=1}^{m} Ter_k \times Smt_k \times Cft_k}{\sum \left[\sum_{j=1}^{p} Smm_j \times Cfm_j\right] + \sum_{k=1}^{m} Smt_k \times Cft_k} \quad (Eq.\ 1b)$$

Where:

Variables with the similar names share the descriptions for Equation 1a of this section,

Smm_j = maximum steam generation, lb_{steam}/h or lb/gross output, for EGU j,

Cfm_j = conversion factor, calculated from the most recent compliance test results, in terms units of heat output or gross output per pound of steam generated (MMBtu/lb_{steam} or MWh/lb_{steam}) from EGU j,

Table IV – 12: MACT Subpart UUUUU

Smt_k = maximum steam generation, lb_{steam}/h or lb/gross output, for EGU k, and
Cfm_k = conversion factor, calculated from the most recent compliance test results, in terms units of heat output or gross output per pound of steam generated (MMBtu/lb_{steam} or MWh/lb_{steam}) from EGU k.

(2) Weighted 30-boiler operating day rolling average emissions rate equations for pollutants other than Hg. Use Equation 2a or 2b of this section to calculate the 30 day rolling average emissions daily.

$$WAER = \frac{\sum_{i=1}^{p}\left[\sum_{i=1}^{n}(Her_i \times Rm_i)\right]_p + \sum_{i=1}^{m}(Ter_i \times Rt_i)}{\sum_{i=1}^{p}\left[\sum_{i=1}^{n}(Rm_i)\right]_p + \sum_{i=1}^{m} Rt_i} \quad (Eq.\ 2a)$$

Where:
Her_i = hourly emission rate (*e.g.,* lb/MMBtu, lb/MWh) from unit i's CEMS for the preceding 30-group boiler operating days,
Rm_i = hourly heat input or gross output from unit i for the preceding 30-group boiler operating days,
p = number of EGUs in emissions averaging group that rely on CEMS or sorbent trap monitoring,
n = number of hours that hourly rates are collected over 30-group boiler operating days,
Ter_i = Emissions rate from most recent emissions test of unit i in terms of lb/heat input or lb/gross output,
Rt_i = Total heat input or gross output of unit i for the preceding 30-boiler operating days, and
m = number of EGUs in emissions averaging group that rely on emissions testing.

$$WAER = \frac{\sum_{i=1}^{p}\left[\sum_{i=1}^{n}(Her_i \times Sm_i \times Cfm_i)\right]_p + \sum_{i=1}^{m}(Ter_i \times St_i \times Cft_i)}{\sum_{i=1}^{p}\left[\sum_{i=1}^{n}(Sm_i \times Cfm_i)\right]_p + \sum_{i=1}^{m} St_i \times Cft_i} \quad (Eq.\ 2b)$$

Where:
variables with similar names share the descriptions for Equation 2a of this section,
Sm_i = steam generation in units of pounds from unit i that uses CEMS for the preceding 30-group boiler operating days,
Cfm_i = conversion factor, calculated from the most recent compliance test results, in units of heat input per pound of steam generated or gross output per pound of steam generated, from unit i that uses CEMS from the preceding 30 group boiler operating days,
St_i = steam generation in units of pounds from unit i that uses emissions testing, and
Cft_i = conversion factor, calculated from the most recent compliance test results, in units of heat input per pound of steam generated or gross output per pound of steam generated, from unit i that uses emissions testing.

(3) Weighted 90-boiler operating day rolling average emissions rate equations for Hg emissions from EGUs in the "coal-fired unit not low rank virgin coal" subcategory. Use Equation 3a or 3b of this section to calculate the 90-day rolling average emissions daily.

$$WAER = \frac{\sum_{i=1}^{p}\left[\sum_{i=1}^{n}(Her_i \times Rm_i)\right]_p + \sum_{i=1}^{m}(Ter_i \times Rt_i)}{\sum_{i=1}^{p}\left[\sum_{i=1}^{n}(Rm_i)\right]_p + \sum_{i=1}^{m} Rt_i} \quad (Eq.\ 3a)$$

Where:
Her_i = hourly emission rate from unit i's CEMS or Hg sorbent trap monitoring system for the preceding 90-group boiler operating days,
Rm_i = hourly heat input or gross output from unit i for the preceding 90-group boiler operating days,
p = number of EGUs in emissions averaging group that rely on CEMS,
n = number of hours that hourly rates are collected over the 90-group boiler operating days,
Ter_i = Emissions rate from most recent emissions test of unit i in terms of lb/heat input or lb/gross

Table IV – 12: MACT Subpart UUUUU

output,
Rt_i = Total heat input or gross output of unit i for the preceding 90-boiler operating days, and
m = number of EGUs in emissions averaging group that rely on emissions testing.

$$WAER = \frac{\sum_{i=1}^{p}\left[\sum_{i=1}^{m}(Her_i \times Sm_i \times Cfm_i)\right]_p + \sum_{i=1}^{m}(Her_i \times St_i \times Cft_i)}{\sum_{i=1}^{p}\left[\sum_{i=1}^{m}(Sm_i \times Cfm_i)\right]_p + \sum_{i=1}^{m} St_i \times Cft_i} \quad (Eq.\ 3b)$$

Where:
variables with similar names share the descriptions for Equation 2a of this section,
Sm_i = steam generation in units of pounds from unit i that uses CEMS or a Hg sorbent trap monitoring for the preceding 90-group boiler operating days,
Cfm_i = conversion factor, calculated from the most recent compliance test results, in units of heat input per pound of steam generated or gross output per pound of steam generated, from unit i that uses CEMS or sorbent trap monitoring from the preceding 90-group boiler operating days,
St_i = steam generation in units of pounds from unit i that uses emissions testing, and
Cft_i = conversion factor, calculated from the most recent emissions test results, in units of heat input per pound of steam generated or gross output per pound of steam generated, from unit i that uses emissions testing.

(c) *Separate stack requirements.* For a group of two or more existing EGUs in the same subcategory that each vent to a separate stack, you may average filterable PM, SO_2, HF, HCl, non-Hg HAP metals, or Hg emissions to demonstrate compliance with the limits in Table 2 to this subpart if you satisfy the requirements in paragraphs (d) through (j) of this section.

(d) For each existing EGU in the averaging group:
(1) The emissions rate achieved during the initial performance test for the HAP being averaged must not exceed the emissions level that was being achieved 180 days after April 16, 2015, or the date on which emissions testing done to support your emissions averaging plan is complete (if the Administrator does not require submission and approval of your emissions averaging plan), or the date that you begin emissions averaging, whichever is earlier; or
(2) The control technology employed during the initial performance test must not be less than the design efficiency of the emissions control technology employed 180 days after April 16, 2015 or the date that you begin emissions averaging, whichever is earlier.

(e) The weighted-average emissions rate from the existing EGUs participating in the emissions averaging option must be in compliance with the limits in Table 2 to this subpart at all times following the date that you begin emissions averaging.

(f) Emissions averaging group eligibility demonstration. You must demonstrate the ability for the EGUs included in the emissions averaging

Table IV – 12: MACT Subpart UUUUU	
	group to demonstrate initial compliance according to paragraph (f)(1) or (2) of this section using the maximum rated heat input or gross output over a 30- (or 90-) boiler operating day period of each EGU and the results of the initial performance tests. For this demonstration and prior to preparing your emissions averaging plan, if requested, you must conduct required emissions monitoring for 30- (or 90 -) days of boiler operation and any required manual performance testing to calculate maximum weighted average emissions rate in accordance with this section. If, before the start of your initial compliance demonstration, the Administrator becomes aware that you intend to use emissions averaging for that demonstration or if your Notification of Compliance Status (NOCS) indicates that you intend to implement emissions averaging at a future date, the Administrator may require you to submit your proposed emissions averaging plan and supporting data for approval. If the Administrator requires approval of your plan, you may not begin using emissions averaging until the Administrator approves your plan. (1) You must use Equation 1a in paragraph (b) of this section to demonstrate that the maximum weighted average emissions rates of filterable PM, HF, SO_2, HCl, non-Hg HAP metals, or Hg emissions from the existing units participating in the emissions averaging option do not exceed the emissions limits in Table 2 to this subpart. (2) If you are not capable of monitoring heat input or gross output, and the EGU generates steam for purposes other than generating electricity, you may use Equation 1b of paragraph (b) of this section as an alternative to using Equation 1a of paragraph (b) of this section to demonstrate that the maximum weighted average emissions rates of filterable PM, HF, SO_2, HCl, non-Hg HAP metals, or Hg emissions from the existing units participating in the emissions averaging group do not exceed the emission limits in Table 2 to this subpart. (g) You must determine the weighted average emissions rate in units of the applicable emissions limit on a 30 group boiler operating day rolling average basis (or, if applicable, on a 90 group boiler operating day rolling average for Hg) according to paragraphs (g)(1) and (2) of this section. The first averaging period begins on 30^{th} (or, if applicable, 90^{th} for the alternate Hg emission limit) group boiler operating day after the date that you begin emissions averaging. (1) You must use Equation 2a or 3a of paragraph (b) of this section to calculate the weighted average emissions rate using the actual heat input or gross output for each existing unit participating in the emissions averaging option. (2) If you are not capable of monitoring heat input or gross output, you may use Equation 2b or 3b of paragraph (b) of this section as an

Table IV – 12: MACT Subpart UUUUU	
	alternative to using Equation 2a of paragraph (b) of this section to calculate the average weighted emission rate using the actual steam generation from the units participating in the emissions averaging option. (h) *CEMS (or sorbent trap monitoring) use.* If an EGU in your emissions averaging group uses CEMS (or a sorbent trap monitor for Hg emissions) to demonstrate compliance, you must use those data to determine the 30 (or 90) group boiler operating day rolling average emissions rate. (i) *Emissions testing.* If you use manual emissions testing to demonstrate compliance for one or more EGUs in your emissions averaging group, you must use the results from the most recent performance test to determine the 30 (or 90) day rolling average. You may use CEMS or sorbent trap data in combination with data from the most recent manual performance test in calculating the 30 (or 90) group boiler operating day rolling average emissions rate. (j) *Emissions averaging plan.* You must develop an implementation plan for emissions averaging according to the following procedures and requirements in paragraphs (j)(1) and (2) of this section. (1) You must include the information contained in paragraphs (j)(1)(i) through (v) of this section in your implementation plan for all the emissions units included in an emissions averaging: (i) The identification of all existing EGUs in the emissions averaging group, including for each either the applicable HAP emission level or the control technology installed as of 180 days after February 16, 2015, or the date on which you complete the emissions measurements used to support your emissions averaging plan (if the Administrator does not require submission and approval of your emissions averaging plan), or the date that you begin emissions averaging, whichever is earlier; and the date on which you are requesting emissions averaging to commence; (ii) The process weighting parameter (heat input, gross output, or steam generated) that will be monitored for each averaging group; (iii) The specific control technology or pollution prevention measure to be used for each emission EGU in the averaging group and the date of its installation or application. If the pollution prevention measure reduces or eliminates emissions from multiple EGUs, you must identify each EGU; (iv) The means of measurement (e.g., CEMS, sorbent trap monitoring, manual performance test) of filterable PM, SO_2, HF, HCl, individual or total non-Hg HAP metals, or Hg emissions in accordance with the requirements in §63.10007 and to be used in the emissions averaging calculations; and (v) A demonstration that emissions averaging can produce compliance with each of the applicable emission limit(s) in accordance with paragraph

Table IV – 12: MACT Subpart UUUUU	
	(b)(1) of this section. (2) If, as described in paragraph (f) of this section, the Administrator requests you to submit the plan for review and approval, you must receive approval before initiating emissions averaging. (i) The Administrator shall use following criteria in reviewing and approving or disapproving the plan: (A) Whether the content of the plan includes all of the information specified in paragraph (j)(1) of this section; and (B) Whether the plan presents information sufficient to determine that compliance will be achieved and maintained. (ii) The Administrator shall not approve an emissions averaging implementation plan containing any of the following provisions: (A) Any averaging between emissions of different pollutants or between units located at different facilities; or (B) The inclusion of any emissions unit other than an existing unit in the same subcategory. (k) *Common stack requirements.* For a group of two or more existing affected units, each of which vents through a single common stack, you may average emissions to demonstrate compliance with the limits in Table 2 to this subpart if you satisfy the requirements in paragraph (l) or (m) of this section. (l) For a group of two or more existing units in the same subcategory and which vent through a common emissions control system to a common stack that does not receive emissions from units in other subcategories or categories, you may treat such averaging group as a single existing unit for purposes of this subpart and comply with the requirements of this subpart as if the group were a single unit. (m) For all other groups of units subject to paragraph (k) of this section, you may elect to conduct manual performance tests according to procedures specified in §63.10007 in the common stack. If emissions from affected units included in the emissions averaging and from other units not included in the emissions averaging (e.g., in a different subcategory) or other nonaffected units all vent to the common stack, you must shut down the units not included in the emissions averaging and the nonaffected units or vent their emissions to a different stack during the performance test. Alternatively, you may conduct a performance test of the combined emissions in the common stack with all units operating and show that the combined emissions meet the most stringent emissions limit. You may also use a CEMS or sorbent trap monitoring to apply this latter alternative to demonstrate that the combined emissions comply with the most

Table IV – 12: MACT Subpart UUUUU	
	stringent emissions limit on a continuous basis. (n) Combination requirements. The common stack of a group of two or more existing EGUs in the same subcategory subject to paragraph (k) of this section may be treated as a single stack for purposes of paragraph (c) of this section and included in an emissions averaging group subject to paragraph (c) of this section."
12.2	**Testing Requirements:** Control of HAPs Emissions **Testing and Initial Compliance Requirements** **§63.10005** - What are my initial compliance requirements and by what date must I conduct them? (a) *General requirements.* For each of your affected EGUs, you must demonstrate initial compliance with each applicable emissions limit in Table 1 or **2** of this subpart through performance testing. Where two emissions limits are specified for a particular pollutant (e.g., a heat input-based limit in lb/MMBtu and a gross output-based limit in lb/MWh), you may demonstrate compliance with either emission limit. For a particular compliance demonstration, you may be required to conduct one or more of the following activities in conjunction with performance testing: collection of data, e.g. hourly gross output data (megawatts); establishment of operating limits according to §63.10011 and Tables 4 and 7 to this subpart; and CMS performance evaluations. In all cases, you must demonstrate initial compliance no later than the date in paragraph (f) of this section for tune-up work practices for existing EGUs, in §63.9984 for other requirements for **existing** EGUs, and in paragraph (g) of this section for all requirements for new EGUs. (1) To demonstrate initial compliance with an applicable emissions limit in Table 1 or **2** to this subpart using stack testing, the initial performance test generally consists of three runs at specified process operating conditions using approved methods. If you are required to establish operating limits (see paragraph (d) of this section and Table 4 to this subpart), you must collect all applicable parametric data during the performance test period. Also, if you choose to comply with an electrical output-based emission limit, you must collect hourly electrical load data during the test period. (2) To demonstrate initial compliance using either a CMS that measures HAP concentrations directly (*i.e.,* an **Hg**, HCl, or HF **CEMS**, or a sorbent trap monitoring system) or an **SO_2 or PM CEMS**, the initial performance test consists of 30- or, for certain coal-fired existing EGUs that use emissions averaging for Hg, 90-boiler operating days. If the CMS is certified prior to the compliance date (or, if applicable, the approved

Table IV – 12: MACT Subpart UUUUU	
	extended compliance date), the test shall begin with the first operating day on or after that date, except as otherwise provided in paragraph (b) of this section. If the CMS is not certified prior to the compliance date, the test shall begin with the first operating day after certification testing is successfully completed. In all cases, the initial 30- or 90- operating day averaging period must be completed on or before the date that compliance must be demonstrated (i.e., 180 days after the applicable compliance date. (i) The CMS performance test must demonstrate compliance with the applicable Hg, HCl, HF, PM, or SO2 emissions limit in Table 1 or 2 to this subpart. (ii) You must collect hourly data from auxiliary monitoring systems (i.e., stack gas flow rate, CO_2, O_2, or moisture, as applicable) during the performance test period, in order to convert the pollutant concentrations to units of the standard. If you choose to comply with an electrical output-based emission limit, you must also collect hourly gross output data during the performance test period. (iii) For a group of affected units that are in the same subcategory, are subject to the same emission standards, and share a common stack, if you elect to demonstrate compliance by monitoring emissions at the common stack, startup and shutdown emissions (if any) that occur during the 30-(or, if applicable, 90-) boiler operating day performance test must either be excluded from or included in the compliance demonstration as follows: (A) If one of the units that shares the stack either starts up or shuts down at a time when none of the other units is operating, you must exclude all pollutant emission rates measured during the startup or shutdown period, unless you are using a sorbent trap monitoring system to measure Hg emissions and have elected to include startup and shutdown emissions in the compliance demonstrations; (B) If all units that are currently operating are in the startup or shutdown mode, you must exclude all pollutant emission rates measured during the startup or shutdown period, unless you are using a sorbent trap monitoring system to measure Hg emissions and have elected to include startup and shutdown emissions in the compliance demonstrations; or (C) If any unit starts up or shuts down at a time when another unit is operating, and the other unit is not in the startup or shutdown mode, you must include all pollutant emission rates measured during the startup or shutdown period in the compliance demonstrations." "(b) *Performance testing requirements.* If you choose to use performance testing to demonstrate initial compliance with the applicable emissions limits in Tables 1 and 2 to this subpart for your EGUs, you must conduct

Table IV – 12: MACT Subpart UUUUU	
	the tests according to §63.10007 and Table 5 to this subpart. For the purposes of the initial compliance demonstration, you may use test data and results from a performance test conducted prior to the date on which compliance is required as specified in §63.9984, provided that the following conditions are fully met: (1) For a performance test based on stack test data, the test was conducted no more than 12 calendar months prior to the date on which compliance is required as specified in §63.9984; (2) For a performance test based on data from a certified CEMS or sorbent trap monitoring system, the test consists of all valid CMS data recorded in the 30 boiler operating days immediately preceding that date; (3) The performance test was conducted in accordance with all applicable requirements in §63.10007 and Table 5 to this subpart; (4) A record of all parameters needed to convert pollutant concentrations to units of the emission standard (e.g., stack flow rate, diluent gas concentrations, hourly gross outputs) is available for the entire performance test period; and (5) For each performance test based on stack test data, you certify, and keep documentation demonstrating, that the EGU configuration, control devices, and fuel(s) have remained consistent with conditions since the prior performance test was conducted." (c) *Not Applicable*. (d) *CMS requirements*. If, for a particular emission or operating limit, you are required to (or elect to) demonstrate initial compliance using a continuous monitoring system, the CMS must pass a performance evaluation prior to the initial compliance demonstration. If a CMS has been previously certified under another state or federal program and is continuing to meet the on-going quality-assurance (QA) requirements of that program, then, provided that the certification and QA provisions of that program meet the applicable requirements of §§63.10010(b) through (h), an additional performance evaluation of the CMS is not required under this subpart. (1) For an affected **coal-fired**, solid oil-derived fuel-fired, or liquid oil-fired EGU, you may demonstrate initial compliance with the applicable SO_2, HCl, or HF emissions limit in Table 1 or **2** to this subpart through use of an SO_2, HCl, or HF CEMS installed and operated in accordance with part 75 of this chapter or Appendix B to this subpart, as applicable. You may also demonstrate compliance with a filterable PM emission limit in Table 1 or 2 to this subpart through use of a **PM CEMS** installed, certified, and operated in accordance with §63.10010(i). Initial compliance is achieved if the arithmetic average of 30-boiler operating days of quality-assured CEMS data, expressed in units of the standard (see §63.10007(e)), meets

Table IV – 12: MACT Subpart UUUUU	
	the applicable SO_2, PM, HCl, or HF emissions limit in Table 1 or **2** to this subpart. Use Equation 19-19 of Method 19 in appendix A-7 to part 60 of this chapter to calculate the 30-boiler operating day average emissions rate. (NOTE: For this calculation, the term E_{hj} in Equation 19-19 must be in the same units of measure as the applicable HCl or HF emission limit in Table 1 or **2** to this subpart). (2) *Not Applicable*. (3) For affected EGUs that are either required to or elect to demonstrate initial compliance with the applicable Hg emission limit in Table 1 or 2 of this subpart using **Hg CEMS** or sorbent trap monitoring systems, initial compliance must be demonstrated no later than the applicable date specified in §63.9984(f) for existing EGUs and in paragraph (g) of this section for new EGUs. Initial compliance is achieved if the arithmetic average of 30- (or 90-) boiler operating days of quality-assured CEMS (or sorbent trap monitoring system) data, expressed in units of the standard (see section 6.2 of appendix A to this subpart), meets the applicable Hg emission limit in Table 1 or 2 to this subpart." "(e) *Tune-ups.* All affected EGUs are subject to the work practice standards in Table 3 of this subpart. As part of your initial compliance demonstration, you must conduct a performance tune-up of your EGU according to §63.10021(e). "(f) For an existing EGU without a neural network, a tune-up, following the procedures in §63.10021(e), must occur within 6 months (180 days) after April 16, 2015. For an existing EGU with a neural network, a tune-up must occur within 18 months (545 days) after April 16, 2016. If a tune-up occurs prior to April 16, 2015, you must keep records showing that the tune-up met all rule requirements." (g) *Not Applicable.* (h) *Not Applicable.* (i) *Not Applicable.* "(j) Startup and shutdown for coal-fired or solid oil derived-fired units. You must follow the requirements given in Table 3 to this subpart. (k) You must submit a Notification of Compliance Status summarizing the results of your initial compliance demonstration, as provided in §63.10030." **§63.10006** - When must I conduct subsequent performance tests or tune-ups? "(a) *Not Applicable.* "(b) *Not Applicable."* "(c) Except where paragraphs (a) or (b) of this section apply, or where you install, certify, and operate a PM CEMS to demonstrate compliance with a

Table IV – 12: MACT Subpart UUUUU	
	filterable PM emissions limit, for liquid oil-, solid oil-derived fuel-, **coal-fired** and IGCC EGUs, you must conduct all applicable periodic emissions tests for filterable PM, individual, or total HAP metals emissions according to Table 5 to this subpart, §63.10007, and §63.10000(c), except as otherwise provided in §63.10021(d)(1)." "(d) *Not Applicable.* "(e) *Not Applicable.* "(f) Time between performance tests. (1) Notwithstanding the provisions of §63.10021(d)(1), the requirements listed in paragraphs (g) and (h) of this section, and the requirements of paragraph (f)(3) of this section, you must complete performance tests for your EGU as follows: (i) At least 45 calendar days, measured from the test's end date, must separate performance tests conducted every quarter; (ii) For annual testing: (A) At least 320 calendar days, measured from the test's end date, must separate performance tests; (B) At least 320 calendar days, measured from the test's end date, must separate annual sorbent trap mercury testing for 30-boiler operating day LEE tests; (C) At least 230 calendar days, measured from the test's end date, must separate annual sorbent trap mercury testing for 90-boiler operating day LEE tests; and (iii) At least 1,050 calendar days, measured from the test's end date, must separate performance tests conducted every 3 years. (2) For units demonstrating compliance through quarterly emission testing, you must conduct a performance test in the 4th quarter of a calendar year if your EGU has skipped performance tests in the first 3 quarters of the calendar year. (3) If your EGU misses a performance test deadline due to being inoperative and if 168 or more boiler operating hours occur in the next test period, you must complete an additional performance test in that period as follows: (i) At least 15 calendar days must separate two performance tests conducted in the same quarter. (ii) At least 107 calendar days must separate two performance tests conducted in the same calendar year. (iii) At least 350 calendar days must separate two performance tests conducted in the same 3 year period. "(g) *Not Applicable.* "(h) Not Applicable. "(i) If you are required to meet an applicable tune-up work practice standard, you must conduct a performance tune-up according to

Table IV – 12: MACT Subpart UUUUU

§63.10021(e).
(1) For EGUs not employing neural network combustion optimization during normal operation, each performance tune-up specified in §63.10021(e) must be no more than 36 calendar months after the previous performance tune-up.
(2) For EGUs employing neural network combustion optimization systems during normal operation, each performance tune-up specified in §63.10021(e) must be no more than 48 calendar months after the previous performance tune-up."
"(j) You must report the results of performance tests and performance tune-ups within 60 days after the completion of the performance tests and performance tune-ups. The reports for all subsequent performance tests must include all applicable information required in §63.10031."

Table 5 to Subpart UUUUU of Part 63—Performance Testing Requirements
As stated in §63.10007, you must comply with the following requirements for performance testing for existing, new or reconstructed affected sources:[1]

To conduct a performance test for the following pollutant	Using	You must perform the following activities, as applicable to your input- or output-based emission limit	Using[2]
1. Filterable Particulate matter (**PM**)	**PM CEMS**	a. Install, certify, operate, and maintain the PM CEMS	Performance Specification 11 at Appendix B to part 60 of this chapter and Procedure 2 at Appendix F to Part 60 of this chapter.
		b. Install, certify, operate, and maintain the diluent gas, flow rate, and/or moisture monitoring systems	Part 75 of this chapter and §§63.10010(a), (b), (c), and (d).
		c. Convert hourly emissions concentrations to 30 boiler operating day rolling average lb/MMBtu or lb/MWh emissions rates	Method 19 F-factor methodology at Appendix A-7 to part 60 of this chapter, or calculate using mass emissions rate and gross output data (see §63.10007(e)).
3. Hydrogen chloride (**HCl**) and hydrogen fluoride (**HF**)	HCl and/or HF CEMS	a. Install, certify, operate, and maintain the HCl or HF CEMS	Appendix B of this subpart.
		b. Install, certify, operate, and maintain the diluent gas, flow rate, and/or	Part 75 of this chapter and §§63.10010(a), (b), (c), and (d).

Table IV – 12: MACT Subpart UUUUU

		moisture monitoring systems	
		c. Convert hourly emissions concentrations to 30 boiler operating day rolling average lb/MMBtu or lb/MWh emissions rates	Method 19 F-factor methodology at Appendix A-7 to part 60 of this chapter, or calculate using mass emissions rate and gross output data (see §63.10007(e)).
4. Mercury **(Hg)**	**Hg CEMS**	a. Install, certify, operate, and maintain the CEMS	Sections 3.2.1 and 5.1 of Appendix A of this subpart.
		b. Install, certify, operate, and maintain the diluent gas, flow rate, and/or moisture monitoring systems	Part 75 of this chapter and §§63.10010(a), (b), (c), and (d).
		c. Convert hourly emissions concentrations to 30 boiler operating day rolling average lb/TBtu or lb/GWh emissions rates	Section 6 of Appendix A to this subpart.

[1]Regarding emissions data collected during periods of startup or shutdown, see §§63.10020(b) and (c) and §63.10021(h).
[2]See Tables 1 and 2 to this subpart for required sample volumes and/or sampling run times.
[3]Incorporated by reference, see §63.14.
[4]When using ASTM D6348-03, the following conditions must be met: (1) The test plan preparation and implementation in the Annexes to ASTM D6348-03, Sections A1 through A8 are mandatory; (2) For ASTM D6348-03 Annex A5 (Analyte Spiking Technique), the percent (%)R must be determined for each target analyte (see Equation A5.5); (3) For the ASTM D6348-03 test data to be acceptable for a target analyte, %R must be 70% ≤R ≤130%; and (4) The %R value for each compound must be reported in the test report and all field measurements corrected with the calculated %R value for that compound using the following equation:

$$Reported\ Result = \frac{(Measured\ Concentration\ in\ Stack)}{\%R} x\ 100$$

§63.10007 - <u>What methods and other procedures must I use for the performance tests?</u>

"(a) Except as otherwise provided in this section, you must conduct all required performance tests according to §63.7(d), (e), (f), and (h). You must also develop a site-specific test plan according to the requirements in §63.7(c).

(1) If you use **CEMS** (**Hg, HCl, SO_2, or other**) to determine compliance with a 30- (or, if applicable, 90-) boiler operating day rolling average emission limit, you must collect quality- assured CEMS data for all unit operating conditions, including startup and shutdown (see §63.10011(g) and Table 3 to this subpart), except as otherwise provided in §63.10020(b). Emission rates determined during startup periods and shutdown periods (as defined in §63.10042) are not to be included in the

Table IV – 12: MACT Subpart UUUUU	
	compliance determinations, except as otherwise provided in §§63.10000(c)(1)(vi)(B) and 63.10005(a)(2)(iii). (2) If you conduct performance testing with test methods in lieu of continuous monitoring, operate the unit at maximum normal operating load conditions during each periodic (e.g., quarterly) performance test. Maximum normal operating load will be generally between 90 and 110 percent of design capacity but should be representative of site specific normal operations during each test run. (3) *Not Applicable*." "(b) You must conduct each performance test (including traditional 3-run stack tests, 30-boiler operating day tests based on CEMS data (or sorbent trap monitoring system data), and 30-boiler operating day Hg emission tests for LEE qualification) according to the requirements in Table 5 to this subpart." (c) *Not Applicable*. "(d) Except for a 30-boiler operating day performance test based on CEMS (or sorbent trap monitoring system) data, where the concept of test runs does not apply, you must conduct a minimum of three separate test runs for each performance test, as specified in §63.7(e)(3). Each test run must comply with the minimum applicable sampling time or volume specified in Table 1 or **2** to this subpart. Sections 63.10005(d) and (h), respectively, provide special instructions for conducting performance tests based on CEMS or sorbent trap monitoring systems, and for conducting emission tests for LEE qualification." "(e) To use the results of performance testing to determine compliance with the applicable emission limits in Table 1 or **2** to this subpart, proceed as follows: (1) Except for a 30-boiler operating day performance test based on CEMS (or sorbent trap monitoring system) data, if measurement results for any pollutant are reported as below the method detection level (e.g., laboratory analytical results for one or more sample components are below the method defined analytical detection level), you must use the method detection level as the measured emissions level for that pollutant in calculating compliance. The measured result for a multiple component analysis (e.g., analytical values for multiple Method 29 fractions both for individual HAP metals and for total HAP metals) may include a combination of method detection level data and analytical data reported above the method detection level. (2) If the limits are expressed in lb/MMBtu or lb/TBtu, you must use the F-factor methodology and equations in sections 12.2 and 12.3 of EPA

Table IV – 12: MACT Subpart UUUUU	
	Method 19 in appendix A-7 to part 60 of this chapter. In cases where an appropriate F-factor is not listed in Table 19-2 of Method 19, you may use F-factors from Table 1 in section 3.3.5 of appendix F to part 75 of this chapter, or F-factors derived using the procedures in section 3.3.6 of appendix to part 75 of this chapter. Use the following factors to convert the pollutant concentrations measured during the initial performance tests to units of lb/scf, for use in the applicable Method 19 equations: (i) Multiply SO_2 ppm by 1.66×10^{-7}; (ii) Multiply HCl ppm by 9.43×10^{-8}; (iii) Multiply HF ppm by 5.18×10^{-8}; (iv) Multiply HAP metals concentrations (mg/dscm) by 6.24×10^{-8}; and (v) Multiply Hg concentrations (µg/scm) by 6.24×10^{-11}. (3) To determine compliance with emission limits expressed in lb/MWh or lb/GWh, you must first calculate the pollutant mass emission rate during the performance test, in units of lb/h. For Hg, if a CEMS or sorbent trap monitoring system is used, use Equation A-2 or A-3 in appendix A to this subpart (as applicable). In all other cases, use an equation that has the general form of Equation A-2 or A-3, replacing the value of K with 1.66×10^{-7} lb/scf-ppm for SO_2, 9.43×10^{-8}lb/scf-ppm for HCl (if an HCl CEMS is used), 5.18×10^{-8} lb/scf-ppm for HF (if an HF CEMS is used), or 6.24×10^{-8} lb-scm/mg-scf for HAP metals and for HCl and HF (when performance stack testing is used), and defining C_h as the average SO_2, HCl, or HF concentration in ppm, or the average HAP metals concentration in mg/dscm. This calculation requires stack gas volumetric flow rate (scfh) and (in some cases) moisture content data (see §§63.10005(h)(3) and 63.10010). Then, if the applicable emission limit is in units of lb/GWh, use Equation A-4 in appendix A to this subpart to calculate the pollutant emission rate in lb/GWh. In this calculation, define $(M)_h$ as the calculated pollutant mass emission rate for the performance test (lb/h), and define $(MW)_h$ as the average electrical load during the performance test (megawatts). If the applicable emission limit is in lb/MWh rather than lb/GWh, omit the 10^3 term from Equation A-4 to determine the pollutant emission rate in lb/MWh." "(f) If you elect to (or are required to) use CEMS to continuously monitor Hg, HCl, HF, SO_2, or PM emissions (or, if applicable, sorbent trap monitoring systems to continuously collect Hg emissions data), the following default values are available for use in the emission rate calculations during startup periods or shutdown periods (as defined in §63.10042). For the purposes of this subpart, these default values are not considered to be substitute data. (1) *Diluent cap values.* If you use CEMS (or, if applicable, sorbent trap monitoring systems) to comply with a heat input-based emission rate limit,

Table IV – 12: MACT Subpart UUUUU	
	you may use the following diluent cap values for a startup or shutdown hour in which the measured CO_2 concentration is below the cap value or the measured O_2 concentration is above the cap value: (i) For an IGCC EGU, you may use 1% for CO_2 or 19% for O_2. (ii) For all other EGUs, you may use 5% for CO_2 or 14% for O_2. (2) *Default gross output.* If you use CEMS to continuously monitor Hg, HCl, HF, SO_2, or PM emissions (or, if applicable, sorbent trap monitoring systems to continuously collect Hg emissions data), the following default value is available for use in the emission rate calculations during startup periods or shutdown periods (as defined in §63.10042). For the purposes of this subpart, this default value is not considered to be substitute data. For a startup or shutdown hour in which there is heat input to an affected EGU but zero gross output, you must calculate the pollutant emission rate using a value equivalent to 5% of the maximum sustainable gross output, expressed in megawatts, as defined in section 6.5.2.1(a)(1) of Appendix A to part 75 of this chapter. This default gross output is either the nameplate capacity of the EGU or the highest gross output observed in at least four representative quarters of EGU operation. For a monitored common stack, the default gross output is used only when all EGUs are operating (i.e., combusting fuel) are in startup or shutdown mode, and have zero electrical generation. Under those conditions, a default electrical load equal to 5% of the combined maximum sustainable gross output of the EGUs that are operating but have a total of zero gross output must be used to calculate the hourly gross output-based pollutant emissions rate." "(g) Upon request, you shall make available to the EPA Administrator such records as may be necessary to determine whether the performance tests have been done according to the requirements of this section."
12.3	**Monitoring Requirements:** Control of HAPs Emissions **§63.10010** - What are my monitoring, installation, operation, and maintenance requirements? "(a) Flue gases from the affected units under this subpart exhaust to the atmosphere through a variety of different configurations, including but not limited to individual stacks, a common stack configuration or a main stack plus a bypass stack. For the **CEMS**, PM CPMS, and sorbent trap monitoring systems used to provide data under this subpart, the continuous monitoring system installation requirements for these exhaust configurations are as follows: (1) Single unit-single stack configurations. For an affected unit that exhausts to the atmosphere through a single, dedicated stack, you shall

Table IV – 12: MACT Subpart UUUUU	
	either install the required CEMS, PM CPMS, and sorbent trap monitoring systems in the stack or at a location in the ductwork downstream of all emissions control devices, where the pollutant and diluents concentrations are representative of the emissions that exit to the atmosphere. (2) Unit utilizing common stack with other affected unit(s). When an affected unit utilizes a common stack with one or more other affected units, but no non-affected units, you shall either: (i) Install the required CEMS, PM CPMS, and sorbent trap monitoring systems in the duct leading to the common stack from each unit; or (ii) Install the required CEMS, PM CPMS, and sorbent trap monitoring systems in the common stack." "(4) Unit with a main stack and a bypass stack that exhausts to the atmosphere independent of the main stack. If the exhaust configuration of an affected unit consists of a main stack and a bypass stack, you shall install CEMS on both the main stack and the bypass stack. If it is not feasible to certify and quality-assure the data from a monitoring system on the bypass stack, you shall: (i) Route the exhaust from the bypass through the main stack and its monitoring so that bypass emissions are measured; or (ii) Install a CEMS only on the main stack and count hours that the bypass stack is in use as hours of deviation from monitoring requirements. "(b) If you use an oxygen (O_2) or carbon dioxide (CO_2) CEMS to convert measured pollutant concentrations to the units of the applicable emissions limit, the O_2 or CO_2 concentrations shall be monitored at a location that represents emissions to the atmosphere, *i.e.,* at the outlet of the EGU, downstream of all emission control devices. You must install, certify, maintain, and operate the CEMS according to part 75 of this chapter. Use only quality-assured O_2 or CO_2 data in the emissions calculations; do not use part 75 substitute data values. (c) If you are required to use a stack gas flow rate monitor, either for routine operation of a sorbent trap monitoring system or to convert pollutant concentrations to units of an electrical output-based emission standard in Table 1 or **2** to this subpart, you must install, certify, operate, and maintain the monitoring system and conduct on-going quality-assurance testing of the system according to part 75 of this chapter. Use only unadjusted, quality-assured flow rate data in the emissions calculations. Do not apply bias adjustment factors to the flow rate data and do not use substitute flow rate data in the calculations. (d) If you are required to make corrections for stack gas moisture content when converting pollutant concentrations to the units of an emission standard in Table 1 of **2** to this subpart, you must install, certify, operate, and maintain a moisture monitoring system in accordance with part 75 of this chapter. Alternatively, for coal-fired units, you may use appropriate

Table IV – 12: MACT Subpart UUUUU	
	fuel-specific default moisture values from §75.11(b) of this chapter to estimate the moisture content of the stack gas or you may petition the Administrator under §75.66 of this chapter for use of a default moisture value for non-coal-fired units. If you install and operate a moisture monitoring system, do not use substitute moisture data in the emissions calculations. (e) If you use an HCl and/or HF CEMS, you must install, certify, operate, maintain, and quality-assure the data from the monitoring system in accordance with appendix B to this subpart. Calculate and record a 30-boiler operating day rolling average HCl or HF emission rate in the units of the standard, updated after each new boiler operating day. Each 30-boiler operating day rolling average emission rate is the average of all the valid hourly HCl or HF emission rates in the preceding 30 boiler operating days (see section 9.4 of appendix B to this subpart). (f)(1) If you use an SO_2 CEMS, you must install the monitor at the outlet of the EGU, downstream of all emission control devices, and you must certify, operate, and maintain the CEMS according to part 75 of this chapter. (2) For on-going QA, the SO_2 CEMS must meet the applicable daily, quarterly, and semiannual or annual requirements in sections 2.1 through 2.3 of appendix B to part 75 of this chapter, with the following addition: You must perform the linearity checks required in section 2.2 of appendix B to part 75 of this chapter if the SO_2 CEMS has a span value of 30 ppm or less. (3) Calculate and record a 30-boiler operating day rolling average SO_2 emission rate in the units of the standard, updated after each new boiler operating day. Each 30-boiler operating day rolling average emission rate is the average of all of the valid SO_2 emission rates in the 30 boiler operating day period. (4) Use only unadjusted, quality-assured SO_2 concentration values in the emissions calculations; do not apply bias adjustment factors to the part 75 SO_2 data and do not use part 75 substitute data values. For startup or shutdown hours (as defined in §63.10042) the default gross output and the diluent cap are available for use in the hourly SO_2 emission rate calculations, as described in §63.10007(f). Use a flag to identify each startup or shutdown hour and report a special code if the diluent cap or default gross output is used to calculate the SO_2 emission rate for any of these hours. (g) If you use a Hg CEMS or a sorbent trap monitoring system, you must install, certify, operate, maintain and quality-assure the data from the monitoring system in accordance with appendix A to this subpart. You must calculate and record a 30- (or, if alternate emissions averaging is used, 90-) boiler operating day rolling average Hg emission rate, in units

Table IV – 12: MACT Subpart UUUUU	
	of the standard, updated after each new boiler operating day. Each 30- (or, if alternate emissions averaging is used, 90-) boiler operating day rolling average emission rate, calculated according to section 6.2 of appendix A to the subpart, is the average of all of the valid hourly Hg emission rates in the preceding 30- (or, if alternate emissions averaging is used, a 90-) boiler operating days. Section 7.1.4.3 of appendix A to this subpart explains how to reduce sorbent trap monitoring system data to an hourly basis. (h) *Not Applicable*. (i) If you choose to comply with the PM filterable emissions limit in lieu of metal HAP limits, you may choose to install, certify, operate, and maintain a PM CEMS and record the output of the PM CEMS as specified in paragraphs (i)(1) through (5) of this section. The compliance limit will be expressed as a 30-boiler operating day rolling average of the numerical emissions limit value applicable for your unit in tables 1 or 2 to this subpart. (1) Install and certify your PM CEMS according to the procedures and requirements in Performance Specification 11—Specifications and Test Procedures for Particulate Matter Continuous Emission Monitoring Systems at Stationary Sources in Appendix B to part 60 of this chapter, using Method 5 at Appendix A-3 to part 60 of this chapter and ensuring that the front half filter temperature shall be 160° ±14 °C (320° ±25 °F). The reportable measurement output from the PM CEMS must be expressed in units of the applicable emissions limit (e.g., lb/MMBtu, lb/MWh). Note: Under the General Provisions §63.8(f)(6)(ii), the Permittee may petition the EPA to use an alternate relative accuracy test for the PM CEMS. The Permittee may want to match the relative accuracy testing with the RA testing requirement for PM CEMS to satisfy NSPS subpart Da. (2) Operate and maintain your PM CEMS according to the procedures and requirements in Procedure 2—Quality Assurance Requirements for Particulate Matter Continuous Emission Monitoring Systems at Stationary Sources in Appendix F to part 60 of this chapter. (i) You must conduct the relative response audit (RRA) for your PM CEMS at least once annually. (ii) You must conduct the relative correlation audit (RCA) for your PM CEMS at least once every 3 years. (3) Collect PM CEMS hourly average output data for all boiler operating hours except as indicated in paragraph (i) of this section. (4) Calculate the arithmetic 30-boiler operating day rolling average of all of the hourly average PM CEMS output data collected during all nonexempt boiler operating hours. (5) You must collect data using the PM CEMS at all times the process unit

Table IV – 12: MACT Subpart UUUUU	
	is operating and at the intervals specified in paragraph (a) of this section, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities. (i) You must use all the data collected during all boiler operating hours in assessing the compliance with your operating limit except: (A) Any data collected during monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or control activities that temporarily interrupt the measurement of emissions (e.g. calibrations, certain audits). You must report any monitoring system malfunctions or out of control periods in your annual deviation reports. You must report any monitoring quality assurance or quality control activities per the requirements of §63.10031(b); (B) Any data collected during periods when the monitoring system is out of control as specified in your site-specific monitoring plan, repairs associated with periods when the monitoring system is out of control, or required monitoring system quality assurance or control activities conducted during out of control periods. You must report any such periods in your annual deviation report; (C) Any data recorded during periods of startup or shutdown. (ii) You must record and make available upon request results of PM CEMS system performance audits, dates and duration of periods when the PM CEMS is out of control to completion of the corrective actions necessary to return the PM CEMS to operation consistent with your site-specific monitoring plan. (j) You may choose to comply with the metal HAP emissions limits using CEMS approved in accordance with §63.7(f) as an alternative to the performance test method specified in this rule. If approved to use a HAP metals CEMS, the compliance limit will be expressed as a 30-boiler operating day rolling average of the numerical emissions limit value applicable for your unit in tables 1 or 2. If approved, you may choose to install, certify, operate, and maintain a HAP metals CEMS and record the output of the HAP metals CEMS as specified in paragraphs (j)(1) through (5) of this section. (1)(i) Install, calibrate, operate, and maintain your HAP metals CEMS according to your CMS quality control program, as described in §63.8(d)(2). The reportable measurement output from the HAP metals CEMS must be expressed in units of the applicable emissions limit (*e.g.,* lb/MMBtu, lb/MWh) and in the form of a 30-boiler operating day rolling average. (ii) Operate and maintain your HAP metals CEMS according to the procedures and criteria in your site specific performance evaluation and

Table IV – 12: MACT Subpart UUUUU	
	quality control program plan required in §63.8(d). (2) Collect HAP metals CEMS hourly average output data for all boiler operating hours except as indicated in section (j)(4) of this section. (3) Calculate the arithmetic 30-boiler operating day rolling average of all of the hourly average HAP metals CEMS output data collected during all nonexempt boiler operating hours data. (4) You must collect data using the HAP metals CEMS at all times the process unit is operating and at the intervals specified in paragraph (a) of this section, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities. (i) You must use all the data collected during all boiler operating hours in assessing the compliance with your emission limit except: (A) Any data collected during periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or quality control activities that temporarily interrupt the measurement of emissions (e.g., calibrations, certain audits). You must report any monitoring system malfunctions or out of control periods in your annual deviation reports. You must report any monitoring system quality assurance or quality control activities per the requirements of §63.10031(b). (B) Any data collected during periods when the monitoring system is out of control as specified in your site-specific monitoring plan, repairs associated with periods when the monitoring system is out of control, or required monitoring system quality assurance or quality control activities conducted during out of control periods. You must report any monitoring system malfunctions or out of control periods in your annual deviation reports. You must report any monitoring system quality assurance or quality control activities per the requirements of §63.10031(b). (C) Any data recorded during periods of startup or shutdown. (ii) You must record and make available upon request results of HAP metals CEMS system performance audits, dates and duration of periods when the HAP metals CEMS is out of control to completion of the corrective actions necessary to return the HAP metals CEMS to operation consistent with your site-specific performance evaluation and quality control program plan." **§63.10011** - <u>How do I demonstrate initial compliance with the emissions limits and work practice standards?</u> (a) You must demonstrate initial compliance with each emissions limit that applies to you by conducting performance testing. (b) If you are subject to an operating limit in Table 4 to this subpart, you demonstrate initial compliance with HAP metals or filterable PM emission

Table IV – 12: MACT Subpart UUUUU	
	limit(s) through performance stack tests and you elect to use a PM CPMS to demonstrate continuous performance, or if, for a liquid oil-fired unit, and you use quarterly stack testing for HCl and HF plus site-specific parameter monitoring to demonstrate continuous performance, you must also establish a site-specific operating limit, in accordance with §63.10007, and Table 6 to this subpart. You may use only the parametric data recorded during successful performance tests (*i.e.*, tests that demonstrate compliance with the applicable emissions limits) to establish an operating limit. (c)(1) If you use **CEMS** or sorbent trap monitoring systems to measure a HAP (e.g., Hg or HCl) directly, the initial performance test, shall consist of a 30-boiler operating day (or, for certain coal-fired, existing EGUs that use emissions averaging for Hg, a 90- boiler operating day) rolling average emissions rate obtained with a certified CEMS or sorbent trap system, expressed in units of the standard. If the monitoring system if certified prior to the applicable compliance date, the initial averaging period shall either begin with: The first boiler operating day on or after the compliance date; or 30 (or, if applicable, 90) boiler operating days prior to that date, as described in §63.10005(b). In all cases, the initial 30- or 90- boiler operating day averaging period must be completed on or before the date that compliance must be demonstrated, in accordance with §63.9984(f). Initial compliance is demonstrated if the results of the performance test meet the applicable emission limit in Table 1 or **2** to this subpart. (2) For an EGU that uses a **CEMS to measure** SO_2 or **PM** emissions for initial compliance, the initial performance test shall consist of a 30-boiler operating day average emission rate obtained with certified CEMS, expressed in units of the standard. If the monitoring system is certified prior to the applicable compliance date, the initial averaging period shall either begin with: The first boiler operating day on or after the compliance date; or 30 boiler operating days prior to that date, as described in §63.10005(b). In all cases, the initial 30-boiler operating day averaging period must be completed on or before the date that compliance must be demonstrated, in accordance with §63.9984(f). Initial compliance is demonstrated if the results of the performance test meet the applicable SO2 or PM emission limit in Table 1 or 2 of this subpart. "(e) You must submit a Notification of Compliance Status containing the results of the initial compliance demonstration, in accordance with §63.10030(e). (f)(1) You must determine the fuel whose combustion produces the least uncontrolled emissions, i.e., the cleanest fuel, either natural gas or distillate oil, that is available on site or accessible nearby for use during periods of startup or shutdown. (2) Your cleanest fuel, either natural gas or distillate oil, for use during

Table IV – 12: MACT Subpart UUUUU	
	periods of startup or shutdown determination may take safety considerations into account. (g) You must follow the startup or shutdown requirements as established in Table 3 to this subpart for each coal-fired, liquid oil-fired, or solid oil-derived fuel-fired EGU. (1) You may use the diluent cap and default gross output values, as described in §63.10007(f), during startup periods or shutdown periods. (2) You must operate all CMS, collect data, calculate pollutant emission rates, and record data during startup periods or shutdown periods. (3) You must report the information as required in §63.10031. (4) If you choose to use paragraph (2) of the definition of "startup" in §63.10042 and you find that you are unable to safely engage and operate your particulate matter (PM) control(s) within 1 hour of first firing of coal, residual oil, or solid oil-derived fuel, you may choose to rely on paragraph (1) of definition of "startup" in §63.10042 or you may submit a request to use an alternative non-opacity emissions standard, as described below. (i) As mentioned in §63.6(g)(1), the request will be published in the FEDERAL REGISTER for notice and comment rulemaking. Until promulgation in the FEDERAL REGISTER of the final alternative non-opacity emission standard, you shall comply with paragraph (1) of the definition of "startup" in §63.10042. You shall not implement the alternative non-opacity emissions standard until promulgation in the FEDERAL REGISTER of the final alternative non-opacity emission standard. (ii) Your request need not address the items contained in §63.6(g)(2). (iii) Your request shall provide evidence of a documented manufacturer-identified safely issue. (iv) Your request shall provide information to document that the PM control device is adequately designed and sized to meet the PM emission limit applicable to the EGU. (v) In addition, your ~~the~~ request shall contain documentation that: (A) Your EGU is using clean fuels to the maximum extent possible, taking into account considerations such as not compromising boiler or control device integrity, to bring your EGU and PM control device up to the temperature necessary to alleviate or prevent the identified safety issues prior to the combustion of primary fuel in the EGU; (B) You have followed explicitly your manufacturer's procedures to alleviate or prevent the identified safety issue; and (C) You have identified with specificity the details of your EGU manufacturer's statement of concern. (vi) Your request shall specify the other work practice standards you will take to limit HAP emissions during startup periods and shutdown periods to ensure a control level consistent with the work practice standards of the final rule.

Table IV – 12: MACT Subpart UUUUU	
	(vii) You must comply with all other work practice requirements, including but not limited to data collection, recordkeeping, and reporting requirements." Continuous Compliance Requirements **§63.10020** - How do I monitor and collect data to demonstrate continuous compliance? "(a) You must monitor and collect data according to this section and the site-specific monitoring plan required by §63.10000(d). (b) You must operate the monitoring system and collect data at all required intervals at all times that the affected EGU is operating, except for periods of monitoring system malfunctions or out-of-control periods (see §63.8(c)(7) of this part), and required monitoring system quality assurance or quality control activities, including, as applicable, calibration checks and required zero and span adjustments. You are required to affect monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable. (c) You may not use data recorded during EGU startup or shutdown or monitoring system malfunctions or monitoring system out-of-control periods, repairs associated with monitoring system malfunctions or monitoring system out-of-control periods, or required monitoring system quality assurance or control activities in calculations used to report emissions or operating levels. You must use all the data collected during all other periods in assessing the operation of the control device and associated control system. (d) Except for periods of monitoring system malfunctions or monitoring system out-of-control periods, repairs associated with monitoring system malfunctions or monitoring system out-of-control periods, and required monitoring system quality assurance or quality control activities including, as applicable, calibration checks and required zero and span adjustments), failure to collect required data is a deviation from the monitoring requirements. (e) Additional requirements during startup periods or shutdown periods if you choose to rely on paragraph (2) of the definition of "startup" in §63.10042 for your EGU. (1) During each period of startup, you must record for each EGU: (i) The date and time that clean fuels being combusted for the purpose of startup begins; (ii) The quantity and heat input of clean fuel for each hour of startup; (iii) The gross output for each hour of startup; (iv) The date and time that non-clean fuel combustion begins; and (v) The date and time that clean fuels being combusted for the purpose of startup ends.

Table IV – 12: MACT Subpart UUUUU	
	(2) During each period of shutdown, you must record for each EGU: (i) The date and time that clean fuels being combusted for the purpose of shutdown begins; (ii) The quantity and heat input of clean fuel for each hour of shutdown; (iii) The gross output for each hour of shutdown; (iv) The date and time that non-clean fuel combustion ends; and (v) The date and time that clean fuels being combusted for the purpose of shutdown ends. (3) For PM or non-mercury HAP metals work practice monitoring during startup periods, you must monitor and collect data according to this section and the site-specific monitoring plan required by §63.10010~~1~~(l). (i) Except for an EGU that uses **PM CEMS** or PM CPMS to demonstrate compliance with the PM emissions limit or that has LEE status for filterable PM or total non-Hg HAP metals for non-liquid oil-fired EGUs (or HAP metals emissions for liquid oil-fired EGUs), or individual non-mercury metals CEMS you must: (A) Record temperature and combustion flow or calculated flow as determined from combustion equations of post-combustion (exhaust) gas, as well as amperage of any induced draft fan(s), downstream of the filterable PM control device during each hour of startup. (B) Record temperature and flow of exhaust gas and amperage of induced draft fan(s) downstream of each filterable PM control devices during each hour of startup. (C) *Not Applicable*. (D) *Not Applicable*. (E) For an EGU with a wet scrubber needed for filterable PM control, record the scrubber liquid to flue gas ratio and the pressure drop across the scrubber during each hour of startup." **§63.10021** - <u>How do I demonstrate continuous compliance with the emission limitations, operating limits, and work practice standards?</u> "(a) You must demonstrate continuous compliance with each emissions limit, operating limit, and work practice standard in Tables 1 through 4 to this subpart that applies to you, according to the monitoring specified in Tables 6 and 7 to this subpart and paragraphs (b) through (g) of this section. (b) Except as otherwise provided in §63.10020(c), if you use a **CEMS to measure** SO_2, **PM, HCl,** HF, **or Hg** emissions, or using a sorbent trap monitoring system to measure Hg emissions, you must demonstrate continuous compliance by using all quality-assured hourly data recorded by the CEMS (or sorbent trap monitoring system) and the other required monitoring systems (e.g., flow rate, CO_2 , O_2 , or moisture systems) to calculate the arithmetic average emissions rate in units of the standard on

Table IV – 12: MACT Subpart UUUUU	
	a continuous 30-boiler operating day (or, if alternate emissions averaging is used for Hg, 90-boiler operating day) rolling average basis, updated at the end of each new boiler operating day. Use Equation 8 to determine the 30- (or, if applicable, 90-) boiler operating day rolling average. $Boiler\ operating\ day\ average = \frac{\sum_{i=1}^{n} Her_i}{n}$ (Eq. 8) Where: Her_i is the hourly emissions rate for hour i and n is the number of hourly emissions rate values collected over 30- (or, if applicable, 90-) boiler operating days. "(d) If you use quarterly performance testing to demonstrate compliance with one or more applicable emissions limits in Table 1 or 2 to this subpart, you (1) May skip performance testing in those quarters during which less than 168 boiler operating hours occur, except that a performance test must be conducted at least once every calendar year. (2) Must conduct the performance test as defined in Table 5 to this subpart and calculate the results of the testing in units of the applicable emissions standard; and (3) Must conduct site-specific monitoring using CMS to demonstrate compliance with the site-specific monitoring requirements in Table 7 to this subpart pertaining to HCL and HF emissions from a liquid oil-fired to ensure compliance with the HCl and HF emission limits in Tables 1 and 2 to this subpart, in accordance with the requirements of §63.10000(c)(2)(iii). The monitoring must meet the general operating requirements provided in §63.10020~~(a)~~." "(e) Conduct periodic performance tune-ups of your EGU(s), as specified in paragraphs (e)(1) through (9) of this section. For your first tune-up, you may perform the burner inspection any time prior to the tune-up or you may delay the first burner inspection until the next scheduled EGU outage provided you meet the requirements of §63.10005. Subsequently, you must perform an inspection of the burner at least once every 36 calendar months unless your EGU employs neural network combustion optimization during normal operations in which case you must perform an inspection of the burner and combustion controls at least once every 48 calendar months. If your EGU is offline when a deadline to perform the tune-up passes, you shall perform the tune-up work practice requirements within 30 days after the re-start of the affected unit. (1) As applicable, inspect the burner and combustion controls, and clean or replace any components of the burner or combustion controls as necessary upon initiation of the work practice program and at least once every required inspection period. Repair of a burner or combustion control component requiring special order parts may be scheduled as follows:

Table IV – 12: MACT Subpart UUUUU	
	(i) Burner or combustion control component parts needing replacement that affect the ability to optimize NO_X and CO must be installed within 3 calendar months after the burner inspection, (ii) Burner or combustion control component parts that do not affect the ability to optimize NO_X and CO may be installed on a schedule determined by the operator; (2) As applicable, inspect the flame pattern and make any adjustments to the burner or combustion controls necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available, or in accordance with best combustion engineering practice for that burner type; (3) As applicable, observe the damper operations as a function of mill and/or cyclone loadings, cyclone and pulverizer coal feeder loadings, or other pulverizer and coal mill performance parameters, making adjustments and effecting repair to dampers, controls, mills, pulverizers, cyclones, and sensors; (4) As applicable, evaluate wind box pressures and air proportions, making adjustments and effecting repair to dampers, actuators, controls, and sensors; (5) Inspect the system controlling the air-to-fuel ratio and ensure that it is correctly calibrated and functioning properly. Such inspection may include calibrating excess O_2 probes and/or sensors, adjusting overfire air systems, changing software parameters, and calibrating associated actuators and dampers to ensure that the systems are operated as designed. Any component out of calibration, in or near failure, or in a state that is likely to negate combustion optimization efforts prior to the next tune-up, should be corrected or repaired as necessary; (6) Optimize combustion to minimize generation of CO and NO_X. This optimization should be consistent with the manufacturer's specifications, if available, or best combustion engineering practice for the applicable burner type. NO_X optimization includes burners, overfire air controls, concentric firing system improvements, neural network or combustion efficiency software, control systems calibrations, adjusting combustion zone temperature profiles, and add-on controls such as SCR and SNCR; CO optimization includes burners, overfire air controls, concentric firing system improvements, neural network or combustion efficiency software, control systems calibrations, and adjusting combustion zone temperature profiles; (7) While operating at full load or the predominantly operated load, measure the concentration in the effluent stream of CO and NO_X in ppm, by volume, and oxygen in volume percent, before and after the tune-up 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

Table IV – 12: MACT Subpart UUUUU	
	made). You may use portable CO, NO_X and O_2 monitors for this measurement. EGU's employing neural network optimization systems need only provide a single pre- and post-tune-up value rather than continual values before and after each optimization adjustment made by the system; (8) Maintain on-site and submit, if requested by the Administrator, an annual report containing the information in paragraphs (e)(1) through (e)(9) of this section including: (i) The concentrations of CO and NO_X in the effluent stream in ppm by volume, and oxygen in volume percent, measured before and after an adjustment of the EGU combustion systems; (ii) A description of any corrective actions taken as a part of the combustion adjustment; and (iii) The type(s) and amount(s) of fuel used over the 12 calendar months prior to an adjustment, but only if the unit was physically and legally capable of using more than one type of fuel during that period; and (9) Report the dates of the initial and subsequent tune-ups in hard copy as specified in §63.10031(f)(5), until April 16, 2017. After April 16, 2017, report the date of all tune-ups electronically, in accordance with §63.10031(f). The tune-up report date is the date when tune-up requirements in paragraphs (e)(6) and (7) of this section are completed. "(f) You must submit the reports required under §63.10031 and, if applicable, the reports required under appendices A and B to this subpart. The electronic reports required by appendices A and B to this subpart must be sent to the Administrator electronically in a format prescribed by the Administrator, as provided in §63.10031. CEMS data (except for PM CEMS and any approved alternative monitoring using a HAP metals CEMS) shall be submitted using EPA's Emissions Collection and Monitoring Plan System (ECMPS) Client Tool. Other data, including PM CEMS data, HAP metals CEMS data, and CEMS performance test detail reports, shall be submitted in the file format generated through use of EPA's Electronic Reporting Tool, the Compliance and Emissions Data Reporting Interface, or alternate electronic file format, all as provided for under §63.10031. (g) You must report each instance in which you did not meet an applicable emissions limit or operating limit in Tables 1 through 4 to this subpart or failed to conduct a required tune-up. These instances are deviations from the requirements of this subpart. These deviations must be reported according to §63.10031. (h) You must keep records as specified in §63.10032 during periods of startup and shutdown. (1) You may use the diluent cap and default gross output values, as described in §63.10007(f), during startup periods or shutdown periods.

Table IV – 12: MACT Subpart UUUUU

(2) You must operate all CMS, collect data, calculate pollutant emission rates, and record data during startup periods or shutdown periods.
(3) You must report the information as required in §63.10031.
(4) You may choose to submit an alternative non-opacity emission standard, in accordance with the requirements contained in §63.10011(g)(4). Until promulgation in the FEDERAL REGISTER of the final alternative non-opacity emission standard, you shall comply with paragraph (1) of the definition of "startup" in §63.10042.
(i) You must provide reports as specified in §63.10031 concerning activities and periods of startup and shutdown."

Table 7 to Subpart UUUUU of Part 63—Demonstrating Continuous Compliance
As stated in §63.10021, you must show continuous compliance with the emission limitations for affected sources according to the following:

If you use one of the following to meet applicable emissions limits, operating limits, or work practice standards	**You demonstrate continuous compliance by**
1. **CEMS to measure filterable PM, SO_2, HCl, HF, or Hg emissions**, or using a sorbent trap monitoring system to measure Hg	Calculating the 30- (or 90-) boiler operating day rolling arithmetic average emissions rate in units of the applicable emissions standard basis at the end of each boiler operating day using all of the quality assured hourly average CEMS or sorbent trap data for the previous 30- (or 90-) boiler operating days, excluding data recorded during periods of startup or shutdown.
4. Quarterly performance testing for **coal-fired**, solid oil derived fired, or liquid oil-fired EGUs to measure compliance with one or more non-PM (or its alternative emission limits) applicable emissions limit in Table 1 or **2**, or PM (or its alternative emission limits) applicable emissions limit in Table 2	Calculating the results of the testing in units of the applicable emissions standard.
5. Conducting periodic performance tune-ups of your EGU(s)	Conducting periodic performance tune-ups of your EGU(s), as specified in §63.10021(e).
6. Work practice standards for coal-fired, liquid oil-fired, or solid oil-derived fuel-fired EGUs during startup	Operating in accordance with Table 3.
7. Work practice standards for coal-fired, liquid oil-fired, or solid oil-derived fuel-fired EGUs during shutdown	Operating in accordance with Table 3.

§63.10022 - How do I demonstrate continuous compliance under the

Table IV – 12: MACT Subpart UUUUU	
	emissions averaging provision? (a) Following the compliance date, the owner or operator must demonstrate compliance with this subpart on a continuous basis by meeting the requirements of paragraphs (a)(1) through (4) of this section. (1) For each 30- (or 90-) day rolling average period, demonstrate compliance with the average weighted emissions limit for the existing units participating in the emissions averaging option as determined in §63.10009(f) and (g); (2) *Not Applicable*. (3) For each existing unit participating in the emissions averaging option venting to a common stack configuration containing affected units from other subcategories, maintain the appropriate operating limit for each unit as specified in Table 4 to this subpart that applies. (4) For each existing EGU participating in the emissions averaging option, operate in accordance with the startup or shutdown work practice requirements given in Table 3 to this subpart. (b) Any instance where the owner or operator fails to comply with the continuous monitoring requirements in paragraphs (a)(1) through (3) of this section is a deviation."
12.4	**Record Keeping Requirements:** **Note:** All records must be maintained for a period of 5 years. **[Reference: COMAR 26.11.03.06C(5)(g)]** Control of HAPs Emissions **Notification, Reports, and Records** **§63.10032** - What records must I keep? "(a) You must keep records according to paragraphs (a)(1) and (2) of this section. If you are required to (or elect to) continuously monitor Hg and/or HCl and/or HF emissions, you must also keep the records required under appendix A and/or appendix B to this subpart. (1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted, according to the requirements in §63.10(b)(2)(xiv). (2) Records of performance stack tests, fuel analyses, or other compliance demonstrations and performance evaluations, as required in §63.10(b)(2)(viii). (b) For each CEMS and CPMS, you must keep records according to paragraphs (b)(1) through (4) of this section. (1) Records described in §63.10(b)(2)(vi) through (xi). (2) Previous (*i.e.*, superseded) versions of the performance evaluation plan as required in §63.8(d)(3).

Table IV – 12: MACT Subpart UUUUU	
	(3) Request for alternatives to relative accuracy test for CEMS as required in §63.8(f)(6)(i). (4) Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period. (c) You must keep the records required in Table 7 to this subpart including records of all monitoring data and calculated averages for applicable PM CPMS operating limits to show continuous compliance with each emission limit and operating limit that applies to you. (d) For each EGU subject to an emission limit, you must also keep the records in paragraphs (d)(1) through (3) of this section. (1) You must keep records of monthly fuel use by each EGU, including the type(s) of fuel and amount(s) used." (2) *Not Applicable*. (3) *Not Applicable*. "(e) If you elect to average emissions consistent with §63.10009, you must additionally keep a copy of the emissions averaging implementation plan required in §63.10009(g), all calculations required under §63.10009, including daily records of heat input or steam generation, as applicable, and monitoring records consistent with §63.10022. (f) Regarding startup periods or shutdown periods: (1) Should you choose to rely on paragraph (1) of the definition of "startup" in §63.10042 for your EGU, you must keep records of the occurrence and duration of each startup or shutdown; (2) Should you choose to rely on paragraph (2) of the definition of "startup" in §63.10042 for your EGU, you must keep records of: (i) The determination of the maximum possible clean fuel capacity for each EGU; (ii) The determination of the maximum possible hourly clean fuel heat input and of the hourly clean fuel heat input for each EGU; and (iii) The information required in §63.10020(e). (3) You must keep records of the determination of the maximum hourly clean fuel heat input and of the hourly clean fuel heat input for each EGU; and (4) You must keep records of the information required in §63.10020(e). (g) You must keep records of the occurrence and duration of each malfunction of an operation (*i.e.*, process equipment) or the air pollution control and monitoring equipment. (h) You must keep records of actions taken during periods of malfunction to minimize emissions in accordance with §63.10000(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

Table IV – 12: MACT Subpart UUUUU	
	(i) You must keep records of the type(s) and amount(s) of fuel used during each startup or shutdown." **§63.10033** - In what form and how long must I keep my records? "(a) Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1). (b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. (c) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). You can keep the records off site for the remaining 3 years."
12.5	**Reporting Requirements:** Control of HAPs Emissions **Notification, Reports, and Records** **§63.10030** - What notifications must I submit and when? "(a) You must submit all of the notifications in §§63.7(b) and (c), 63.8 (e), (f)(4) and (6), and 63.9 (b) through (h) that apply to you by the dates specified. (b) As specified in §63.9(b)(2), if you startup your EGU that is an affected source before April 16, 2012, you must submit an Initial Notification not later than 120 days after April 16, 2012." "(d) When you are required to conduct a performance test, you must submit a Notification of Intent to conduct a performance test at least 30 days before the performance test is scheduled to begin. (e) When you are required to conduct an initial compliance demonstration as specified in §63.10011(a), you must submit a Notification of Compliance Status according to §63.9(h)(2)(ii). The Notification of Compliance Status report must contain all the information specified in paragraphs (e)(1) through (7), as applicable. (1) A description of the affected source(s) including identification of the subcategory of the source, the design capacity of the source, a description of the add-on controls used on the source, description of the fuel(s) burned, including whether the fuel(s) were determined by you or EPA through a petition process to be a non-waste under 40 CFR 241.3, whether the fuel(s) were processed from discarded non-hazardous secondary materials within the meaning of 40 CFR 241.3, and justification for the selection of fuel(s) burned during the performance test. (2) Summary of the results of all performance tests and fuel analyses and calculations conducted to demonstrate initial compliance including all

Table IV – 12: MACT Subpart UUUUU	
	established operating limits. (3) Identification of whether you plan to demonstrate compliance with each applicable emission limit through performance testing; fuel moisture analyses; performance testing with operating limits (e.g., use of PM CPMS); **CEMS**; or a sorbent trap monitoring system. (4) Identification of whether you plan to demonstrate compliance by emissions averaging. (5) A signed certification that you have met all applicable emission limits and work practice standards. (6) If you had a deviation from any emission limit, work practice standard, or operating limit, you must also submit a brief description of the deviation, the duration of the deviation, emissions point identification and the cause of the deviation in the Notification of Compliance Status report. (7) In addition to the information required in §63.9(h)(2), your notification of compliance status must include the following: (i) A summary of the results of the annual performance tests and documentation of any operating limits that were reestablished during this test, if applicable. If you are conducting stack tests once every 3 years consistent with §63.10005(h)(1)(i), the date of each stack test conducted during the previous 3 years, a comparison of emission level you achieved in each stack test conducted during the previous 3 to the 50 percent emission limit threshold required in §63.10006(i), and a statement as to whether there have been any operational changes since the last stack test that could increase emissions. (ii) Certifications of compliance, as applicable, and must be signed by a responsible official stating: (A) “This EGU complies with the requirements in §63.10021(a) to demonstrate continuous compliance.” and (B) “No secondary materials that are solid waste were combusted in any affected unit.” “(8) Identification of whether you plan to rely on paragraph (1) or (2) of the definition of “startup” in §63.10042. (i) Should you choose to rely on paragraph (2) of the definition of “startup” in §63.10042 for your EGU, you shall include a report that identifies: (A) The original EGU installation date; (B) The original EGU design characteristics, including, but not limited to, fuel and PM controls; (C) Each design PM control device efficiency established during performance testing or while operating in periods other than startup and shutdown periods; (D) The design PM emission rate from the EGU in terms of pounds PM per MMBtu and pounds PM per hour established during performance testing or while operating in periods other than startup and shutdown

Table IV – 12: MACT Subpart UUUUU	
	periods ; (E) The design time from start of fuel combustion to necessary conditions for each PM control device startup; (F) Each design PM control device efficiency upon startup of the PM control device, if different from the efficiency provided in paragraph (e)(8)(i)(C) of this section; (G) Current EGU PM producing characteristics, including, but not limited to, fuel mix and PM controls, if different from the characteristics provided in paragraph (e)(8)(i)(B) of this section; The design EGU uncontrolled PM emission rate in terms of pounds PM per hour; (H) Current PM control device efficiency from each PM control device, if different from the efficiency provided in paragraph (e)(8)(i)(C) of this section; (I) Current PM emission rate from the EGU in terms of pounds PM per MMBtu and pounds per hour if different from the rate provided in paragraph (e)(8)(i)(D) of this section; (J) Current time from start of fuel combustion to conditions necessary for each PM control device startup, if different from the time provided in paragraph (e)(8)(i)(E) of this section; (K) Current PM control device efficiency upon startup of each PM control device; if different from the efficiency provided in paragraph (e)(8)(i)(H) of this section; (ii) The report shall be prepared, signed, and sealed by a professional engineer licensed in the state where your EGU is located." **§63.10031** - <u>What reports must I submit and when?</u> "(a) You must submit each report in Table 8 to this subpart that applies to you. If you are required to (or elect to) continuously monitor Hg and/or HCl and/or HF emissions, you must also submit the electronic reports required under appendix A and/or appendix B to the subpart, at the specified frequency. (b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in Table 8 to this subpart and according to the requirements in paragraphs (b)(1) through (5) of this section. (1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.9984 and ending on June 30 or December 31, whichever date is the first date that occurs at least 180 days after the compliance date that is specified for your source in §63.9984. (2) The first compliance report must be postmarked or submitted electronically no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance

Table IV – 12: MACT Subpart UUUUU	
	date that is specified for your source in §63.9984. (3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. (4) Each subsequent compliance report must be postmarked or submitted electronically no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period. (5) For each affected source that is subject to permitting regulations pursuant to part 70 or part 71 of this chapter, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section. (c) The compliance report must contain the information required in paragraphs (c)(1) through (94) of this section. (1) The information required by the summary report located in 63.10(e)(3)(vi). (2) The total fuel use by each affected source subject to an emission limit, for each calendar month within the semiannual reporting period, including, but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by EPA or your basis for concluding that the fuel is not a waste, and the total fuel usage amount with units of measure. (3) Indicate whether you burned new types of fuel during the reporting period. If you did burn new types of fuel you must include the date of the performance test where that fuel was in use. (4) Include the date of the most recent tune-up for each EGU. The date of the tune-up is the date the provisions specified in§63.10021(e)(6) and (7) were completed. (5) Should you choose to rely on paragraph (2) of the definition of “startup” in §63.10042 for your EGU, for each instance of startup or shutdown you shall: (i) Include the maximum clean fuel storage capacity and the maximum hourly heat input that can be provided for each clean fuel determined according to the requirements of §63.10032(f). (ii) Include the information required to be monitored, collected, or recorded according to the requirements of §63.10020(e). (iii) If you choose to use CEMS to demonstrate compliance with numerical limits, include hourly average CEMS values and hourly average flow values during startup periods or shutdown periods. Use units of milligrams per cubic meter for PM CEMS, micrograms per cubic meter for Hg CEMS values, and ppmv for HCl, HF, or SO_2 CEMS values. Use units of standard cubic meters per hour on a wet basis for flow values.

Table IV – 12: MACT Subpart UUUUU	
	(iv) If you choose to use a separate sorbent trap measurement system for startup or shutdown reporting periods, include hourly average mercury concentration values in terms of micrograms per cubic meter. (v) If you choose to use a PM CPMS, include hourly average operating parameter values in terms of the operating limit, as well as the operating parameter to PM correlation equation. (6) You must report emergency bypass information annually from EGUs with LEE status. (7) A summary of the results of the annual performance tests and documentation of any operating limits that were reestablished during the test, if applicable. If you are conducting stack tests once every 3 years to maintain LEE status, consistent with §63.10006(b), the date of each stack test conducted during the previous 3 years, a comparison of emission level you achieved in each stack test conducted during the previous 3 years to the 50 percent emission limit threshold required in §63.10005(h)(1)(i), and a statement as to whether there have been any operational changes since the last stack test that could increase emissions. (8) A certification. (9) If you have a deviation from any emission limit, work practice standard, or operating limit, you must also submit a brief description of the deviation, the duration of the deviation, emissions point identification, and the cause of the deviation. (d) For each excess emissions occurring at an affected source where you are using a CMS to comply with that emission limit or operating limit, you must include the information required in §63.10(e)(3)(v) in the compliance report specified in section (c). (e) Each affected source that has obtained a Title V operating permit pursuant to part 70 or part 71 of this chapter must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a compliance report pursuant to Table 8 to this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission limit, operating limit, or work practice requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. Submission of a compliance report does not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority. (f) On or after **April 16, 2017**, within 60 days after the date of completing each performance test, you must submit the performance test reports required by this subpart to EPA's WebFIRE database by using the

Table IV – 12: MACT Subpart UUUUU	
	Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). Performance test data must be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT) (see *http://www.epa.gov/ttn/chief/ert/index.html*). Only data collected using those test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. Owners or operators who claim that some of the information being submitted for performance tests is confidential business information (CBI) must submit a complete ERT file including information claimed to be CBI on a compact disk or other commonly used electronic storage media (including, but not limited to, flash drives) to EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted must be submitted to EPA via CDX as described earlier in this paragraph. At the discretion of the delegated authority, you must also submit these reports, including the confidential business information, to the delegated authority in the format specified by the delegated authority. (1) On or after **April 16, 2017**, within 60 days after the date of completing each **CEMS (**SO_2**, PM, HCl,** HF**, and Hg)** performance evaluation test, as defined in §63.2 and required by this subpart, you must submit the relative accuracy test audit (RATA) data (or, for PM CEMS, RCA and RRA data) required by this subpart to EPA's WebFIRE database by using CEDRI that is accessed through EPA's CDX (*www.epa.gov/cdx*). The RATA data shall be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT) (*http://www.epa.gov/ttn/chief/ert/index.html*). Only RATA data compounds listed on the ERT Web site are subject to this requirement. Owners or operators who claim that some of the information being submitted for RATAs is confidential business information (CBI) shall submit a complete ERT file including information claimed to be CBI on a compact disk or other commonly used electronic storage media (including, but not limited to, flash drives) by registered letter to EPA and the same ERT file with the CBI omitted to EPA via CDX as described earlier in this paragraph. The compact disk or other commonly used electronic storage media shall be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. At the discretion of the delegated authority, owners or operators shall also submit these RATAs to the delegated authority in the format specified by the delegated authority. Owners or operators shall submit calibration error testing, drift checks, and other information required in the performance evaluation as described in §63.2 and as required in this chapter.

Table IV – 12: MACT Subpart UUUUU	
	(2) On or after **April 16, 2017**, for a PM CEMS, PM CPMS, or approved alternative monitoring using a HAP metals CEMS, within 60 days after the reporting periods ending on March 31st, June 30th, September 30th, and December 31st, you must submit quarterly reports to EPA's WebFIRE database by using the CEDRI that is accessed through EPA's CDX (*www.epa.gov/cdx*). You must use the appropriate electronic reporting form in CEDRI or provide an alternate electronic file consistent with EPA's reporting form output format. For each reporting period, the quarterly reports must include all of the calculated 30-boiler operating day rolling average values derived from the CEMS and PM CPMS. (3) Reports for an SO_2 CEMS, a Hg CEMS or sorbent trap monitoring system, an HCl or HF CEMS, and any supporting monitors for such systems (such as a diluent or moisture monitor) shall be submitted using the ECMPS Client Tool, as provided for in Appendices A and B to this subpart and §63.10021(f). (4) On or after **April 16, 2017**, submit the compliance reports required under paragraphs (c) and (d) of this section and the notification of compliance status required under §63.10030(e) to EPA's WebFIRE database by using the CEDRI that is accessed through EPA's CDX (*www.epa.gov/cdx*). You must use the appropriate electronic reporting form in CEDRI or provide an alternate electronic file consistent with EPA's reporting form output format. (5) All reports required by this subpart not subject to the requirements in paragraphs (f) introductory text and (f)(1) through (4) of this section must be sent to the Administrator at the appropriate address listed in §63.13. If acceptable to both the Administrator and the owner or operator of an EGU, these reports may be submitted on electronic media. The Administrator retains the right to require submittal of reports subject to paragraphs (f) introductory text and (f)(1) through (4) of this section in paper format. (6) Prior to **April 16, 2017**, all reports subject to electronic submittal in paragraphs (f) introductory text, (f)(1), (2), and (4) shall be submitted to the EPA at the frequency specified in those paragraphs in electronic portable document format (PDF) using the ECMPS Client Tool. Each PDF version of a submitted report must include sufficient information to assess compliance and to demonstrate that the testing was done properly. The following data elements must be entered into the ECMPS Client Tool at the time of submission of each PDF file: (i) The facility name, physical address, mailing address (if different from the physical address), and county; (ii) The ORIS code (or equivalent ID number assigned by EPA's Clean Air Markets Division (CAMD)) and the Facility Registry System (FRS) ID; (iii) The EGU (or EGUs) to which the report applies. Report the EGU IDs

Table IV – 12: MACT Subpart UUUUU

as they appear in the CAMD Business System;
(iv) If any of the EGUs in paragraph (f)(6)(iii) of this section share a common stack, indicate which EGUs share the stack. If emissions data are monitored and reported at the common stack according to part 75 of this chapter, report the ID number of the common stack as it is represented in the electronic monitoring plan required under §75.53 of this chapter;
(v) If any of the EGUs described in paragraph (f)(6)(iii) of this section are in an averaging plan under §63.10009, indicate which EGUs are in the plan and whether it is a 30- or 90-day averaging plan;
(vi) The identification of each emission point to which the report applies. An "emission point" is a point at which source effluent is released to the atmosphere, and is either a dedicated stack that serves one of the EGUs identified in paragraph (f)(6)(iii) of this section or a common stack that serves two or more of those EGUs. To identify an emission point, associate it with the EGU or stack ID in the CAMD Business system or the electronic monitoring plan (*e.g.,* "Unit 2 stack," "common stack CS001," or "multiple stack MS001");
(vii) The rule citation (*e.g.,* §63.10031(f)(1), §63.10031(f)(2), etc.) for which the report is showing compliance;
(viii) The pollutant(s) being addressed in the report;
(ix) The reporting period being covered by the report (if applicable);
(x) The relevant test method that was performed for a performance test (if applicable);
(xi) The date the performance test was conducted (if applicable); and
(xii) The responsible official's name, title, and phone number.
(g) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded."

Table 8 to Subpart UUUUU of Part 63—Reporting Requirements
As stated in §63.10031, you must comply with the following requirements for reports:

You must submit a...	The report must contain...	You must submit the report...
1. Compliance report	a. Information required in §63.10031(c)(1) through (4); and b. If there are no deviations from any emission limitation (emission limit and operating limit) that applies to you and there are no deviations from the requirements for work practice standards in Table 3 to this subpart that apply to you, a statement that there were no deviations from the emission limitations and	Semiannually according to the requirements in §63.10031(b).

Table IV – 12: MACT Subpart UUUUU			
		work practice standards during the reporting period. If there were no periods during which the CMSs, including continuous emissions monitoring system, and operating parameter monitoring systems, were out-of-control as specified in §63.8(c)(7), a statement that there were no periods during which the CMSs were out-of-control during the reporting period; and	
		c. If you have a deviation from any emission limitation (emission limit and operating limit) or work practice standard during the reporting period, the report must contain the information in §63.10031(d). If there were periods during which the CMSs, including continuous emissions monitoring systems and continuous parameter monitoring systems, were out-of-control, as specified in §63.8(c)(7), the report must contain the information in §63.10031(e)	

"A permit shield shall cover the applicable requirements identified for the emissions unit(s) listed in the table above."

Table IV–13: Cross State Air Pollution Rule (CSAPR)	
13.0	**<u>Emissions Unit Number(s): FSC-BS-Unit1 & FSC-BS-Unit2; FSC-HAW-Unit1 & FSC-HAW-Unit4 ; FSC-HAW-Unit2 & FSC-HAW-Unit3</u>** **FSC-BS-Unit1 and FSC-BS-Unit2:** Two (2) solid fossil fuel-fired generating units with No.2 oil used for start-up purposes. These Units are also capable of re-burning high carbon fly ash with the solid fuel/coal that has been recovered from the fly ash separation equipment on site. [**3-0015 & 3-0016]** **FSC-HAW-Unit1:** H.A. Wagner Unit 1 is a No. 6 oil or natural gas fired unit [**5-0469]** **FSC-HAW-Unit4:** H.A. Wagner Unit 4 is a No. 6 oil fired unit with natural gas fired used for start-up. [**4-0017**] **FSC-HAW-Unit2:** H.A. Wagner Unit 2 is a coal fired unit with natural gas used for start-up. **[3-0017]** **FSC-HAW-Unit3:** H.A. Wagner Unit 3 is a coal fired unit with natural gas used for start-up. **[3-0003]**
13.1	**<u>Applicable Standards/Limits</u>:** **A. 40 CFR Part 97 Subpart AAAAA-TR NO_X Annual Trading Program** **<u>TR NO_X Annual Trading Program requirements (40 CFR 97.406)</u>** **(a) Designated representative requirements.**

Table IV–13: Cross State Air Pollution Rule (CSAPR)	
	The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 40 CFR 97.413 through 97.418. **(b) Emissions monitoring, reporting, and recordkeeping requirements.** (1) The owners and operators, and the designated representative, of each TR NO_X Annual source and each TR NO_X Annual unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.430 (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 97.431 (initial monitoring system certification and recertification procedures), 97.432 (monitoring system out-of-control periods), 97.433 (notifications concerning monitoring), 97.434 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 97.435 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements). (2) The emissions data determined in accordance with 40 CFR 97.430 through 97.435 shall be used to calculate allocations of TR NO_X Annual allowances under 40 CFR 97.411(a)(2) and (b) and 97.412 and to determine compliance with the TR NO_X Annual emissions limitation and assurance provisions under paragraph (c) below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 CFR 97.430 through 97.435 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero. **(c) NO_X emissions requirements.** (1) TR NO_X Annual emissions limitation. (i). As of the allowance transfer deadline for a control period in a given year, the owners and operators of each TR NO_X Annual source and each TR NO_X Annual unit at the source shall hold, in the source's compliance account, TR NO_X Annual allowances available for deduction for such control period under 40 CFR 97.424(a) in an amount not less than the tons of total NO_X emissions for such control period from all TR NO_X Annual units at the source. (ii). If total NO_X emissions during a control period in a given year from the TR NO_X Annual units at a TR NO_X Annual source are in excess of the TR NO_X Annual emissions limitation set

Table IV–13: Cross State Air Pollution Rule (CSAPR)	
	forth in paragraph (c)(1)(i) above, then: (A). The owners and operators of the source and each TR NO_X Annual unit at the source shall hold the TR NO_X Annual allowances required for deduction under 40 CFR 97.424(d); and (B). The owners and operators of the source and each TR NO_X Annual unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart AAAAA and the Clean Air Act. (2) TR NO_X Annual assurance provisions. (i). If total NO_X emissions during a control period in a given year from all TR NO_X Annual units at TR NO_X Annual sources in the state exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such NO_X emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) TR NO_X Annual allowances available for deduction for such control period under 40 CFR 97.425(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR 97.425(b), of multiplying— (A) The quotient of the amount by which the common designated representative's share of such NO_X emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state for such control period, by which each common designated representative's share of such NO_X emissions exceeds the respective common designated representative's assurance level; and (B) The amount by which total NO_X emissions from all TR NO_X Annual units at TR NO_X Annual sources in the state for such control period exceed the state assurance level.

Table IV–13: Cross State Air Pollution Rule (CSAPR)	
	(ii). The owners and operators shall hold the TR NO_X Annual allowances required under paragraph (c)(2)(i) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period. (iii). Total NO_X emissions from all TR NO_X Annual units at TR NO_X Annual sources in the State during a control period in a given year exceed the state assurance level if such total NO_X emissions exceed the sum, for such control period, of the state NO_X Annual trading budget under 40 CFR 97.410(a) and the state's variability limit under 40 CFR 97.410(b). (iv). It shall not be a violation of 40 CFR part 97, subpart AAAAA or of the Clean Air Act if total NO_X emissions from all TR NO_X Annual units at TR NO_X Annual sources in the State during a control period exceed the state assurance level or if a common designated representative's share of total NO_X emissions from the TR NO_X Annual units at TR NO_X Annual sources in the state during a control period exceeds the common designated representative's assurance level. (v). To the extent the owners and operators fail to hold TR NO_X Annual allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) above, (A). The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and (B). Each TR NO_X Annual allowance that the owners and operators fail to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) above and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart AAAAA and the Clean Air Act. (3) Compliance periods. (i). A TR NO_X Annual unit shall be subject to the requirements under paragraph (c)(1) above for the control period starting on the later of January 1, 2015, or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.430(b) and for each control period thereafter. (ii). A TR NO_X Annual unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of January 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.430(b) and for each control period thereafter. (4) Vintage of allowances held for compliance.

Table IV–13: Cross State Air Pollution Rule (CSAPR)	
	(i). A TR NO_X Annual allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year must be a TR NO_X Annual allowance that was allocated for such control period or a control period in a prior year. (ii). A TR NO_X Annual allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (2)(i) through (iii) above for a control period in a given year must be a TR NO_X Annual allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year. (5) Allowance Management System requirements. Each TR NO_X Annual allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR part 97, subpart AAAAA. (6) Limited authorization. A TR NO_X Annual allowance is a limited authorization to emit one ton of NO_X during the control period in one year. Such authorization is limited in its use and duration as follows: (i). Such authorization shall only be used in accordance with the TR NO_X Annual Trading Program; and (ii). Notwithstanding any other provision of 40 CFR part 97, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act. (7) Property right. A TR NO_X Annual allowance does not constitute a property right. **(d) Title V permit revision requirements.** (1) No title V permit revision shall be required for any allocation, holding, deduction, or transfer of TR NO_X Annual allowances in accordance with 40 CFR part 97, subpart AAAAA. (2) This permit incorporates the TR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR 97.430 through 97.435, and the requirements for a continuous emission monitoring system (pursuant to 40 CFR part 75, subparts B and H), an excepted monitoring system (pursuant to 40 CFR part 75, appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR 75.19), and an alternative monitoring system (pursuant to 40 CFR part 75, subpart E). Therefore, the Description of TR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this title V permit using minor permit modification

Table IV–13: Cross State Air Pollution Rule (CSAPR)	
	procedures in accordance with 40 CFR 97.406(d)(2) and 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B). **(e) Additional recordkeeping and reporting requirements.** (1) Unless otherwise provided, the owners and operators of each TR NO_X Annual source and each TR NO_X Annual unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) 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 Administrator. (i). The certificate of representation under 40 CFR 97.416 for the designated representative for the source and each TR NO_X Annual unit 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 certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 CFR 97.416 changing the designated representative. (ii). All emissions monitoring information, in accordance with 40 CFR part 97, subpart AAAAA. (iii). Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the TR NO_X Annual Trading Program. (2) The designated representative of a TR NO_X Annual source and each TR NO_X Annual unit at the source shall make all submissions required under the TR NO_X Annual Trading Program, except as provided in 40 CFR 97.418. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a title V operating permit program in 40 CFR parts 70 and 71. **(f) Liability.** (1) Any provision of the TR NO_X Annual Trading Program that applies to a TR NO_X Annual source or the designated representative of a TR NO_X Annual source shall also apply to the owners and operators of such source and of the TR NO_X Annual units at the source. (2) Any provision of the TR NO_X Annual Trading Program that applies to a TR NO_X Annual unit or the designated representative of a TR NO_X Annual unit shall also apply to the owners and operators of such unit.

Table IV–13: Cross State Air Pollution Rule (CSAPR)	
	(g) Effect on other authorities. No provision of the TR NO_X Annual Trading Program or exemption under 40 CFR 97.405 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a TR NO_X Annual source or TR NO_X Annual unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act. **B. 40 CFR Part 97 Subpart BBBBB-TR NO_X Ozone Season Trading Program** **TR NO_X Ozone Season Trading Program Requirements (40 CFR 97.506)** **(a) Designated representative requirements.** The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 40 CFR 97.513 through 97.518. **(b) Emissions monitoring, reporting, and recordkeeping requirements.** (1) The owners and operators, and the designated representative, of each TR NO_X Ozone Season source and each TR NO_X Ozone Season unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.530 (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), 97.531 (initial monitoring system certification and recertification procedures), 97.532 (monitoring system out-of-control periods), 97.533 (notifications concerning monitoring), 97.534 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 97.535 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements). (2) The emissions data determined in accordance with 40 CFR 97.530 through 97.535 shall be used to calculate allocations of TR NO_X Ozone Season allowances under 40 CFR 97.511(a)(2) and (b) and 97.512 and to determine compliance with the TR NO_X Ozone Season emissions limitation and assurance provisions under paragraph (c) below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 CFR 97.530 through 97.535 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

Table IV–13: Cross State Air Pollution Rule (CSAPR)	
	(c) NO_X emissions requirements. (1) TR NO_X Ozone Season emissions limitation. (i). As of the allowance transfer deadline for a control period in a given year, the owners and operators of each TR NO_X Ozone Season source and each TR NO_X Ozone Season unit at the source shall hold, in the source's compliance account, TR NO_X Ozone Season allowances available for deduction for such control period under 40 CFR 97.524(a) in an amount not less than the tons of total NO_X emissions for such control period from all TR NO_X Ozone Season units at the source. (ii). If total NO_X emissions during a control period in a given year from the TR NO_X Ozone Season units at a TR NO_X Ozone Season source are in excess of the TR NO_X Ozone Season emissions limitation set forth in paragraph (c)(1)(i) above, then: (A). The owners and operators of the source and each TR NO_X Ozone Season unit at the source shall hold the TR NO_X Ozone Season allowances required for deduction under 40 CFR 97.524(d); and (B). The owners and operators of the source and each TR NO_X Ozone Season unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart BBBBB and the Clean Air Act. (2) TR NO_X Ozone Season assurance provisions. (i). If total NO_X emissions during a control period in a given year from all TR NO_X Ozone Season units at TR NO_X Ozone Season sources in the state exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such NO_X emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) TR NO_X Ozone Season allowances available for deduction for such control period under 40 CFR 97.525(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator

Table IV–13: Cross State Air Pollution Rule (CSAPR)	
	in accordance with 40 CFR 97.525(b), of multiplying— (A). The quotient of the amount by which the common designated representative's share of such NO_X emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state for such control period, by which each common designated representative's share of such NO_X emissions exceeds the respective common designated representative's assurance level; and (B). The amount by which total NO_X emissions from all TR NO_X Ozone Season units at TR NO_X Ozone Season sources in the state for such control period exceed the state assurance level. (ii). The owners and operators shall hold the TR NO_X Ozone Season allowances required under paragraph (c)(2)(i) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period. (iii). Total NO_X emissions from all TR NO_X Ozone Season units at TR NO_X Ozone Season sources in the state during a control period in a given year exceed the state assurance level if such total NO_X emissions exceed the sum, for such control period, of the State NO_X Ozone Season trading budget under 40 CFR 97.510(a) and the state's variability limit under 40 CFR 97.510(b). (iv). It shall not be a violation of 40 CFR part 97, subpart BBBBB or of the Clean Air Act if total NO_X emissions from all TR NO_X Ozone Season units at TR NO_X Ozone Season sources in the state during a control period exceed the state assurance level or if a common designated representative's share of total NO_X emissions from the TR NO_X Ozone Season units at TR NO_X Ozone Season sources in the state during a control period exceeds the common designated representative's assurance level. (v). To the extent the owners and operators fail to hold TR NO_X Ozone Season allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) above, (A). The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and

Table IV–13: Cross State Air Pollution Rule (CSAPR)	
	(B). Each TR NO_X Ozone Season allowance that the owners and operators fail to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) above and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart BBBBB and the Clean Air Act. (3) Compliance periods. (i). A TR NO_X Ozone Season unit shall be subject to the requirements under paragraph (c)(1) above for the control period starting on the later of May 1, 2015 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.530(b) and for each control period thereafter. (ii). A TR NO_X Ozone Season unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of May 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.530(b) and for each control period thereafter. (4) Vintage of allowances held for compliance. (i). A TR NO_X Ozone Season allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year must be a TR NO_X Ozone Season allowance that was allocated for such control period or a control period in a prior year. (ii). A TR NO_X Ozone Season allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (2)(i) through (iii) above for a control period in a given year must be a TR NO_X Ozone Season allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year. (5) Allowance Management System requirements. Each TR NO_X Ozone Season allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR part 97, subpart BBBBB. (6) Limited authorization. A TR NO_X Ozone Season allowance is a limited authorization to emit one ton of NO_X during the control period in one year. Such authorization is limited in its use and duration as follows: (i). Such authorization shall only be used in accordance with the TR NO_X Ozone Season Trading Program; and (ii). Notwithstanding any other provision of 40 CFR part 97, subpart BBBBB, the Administrator has the authority to terminate or limit the use and duration of such authorization

Table IV–13: Cross State Air Pollution Rule (CSAPR)	
	to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act. (7) Property right. A TR NO_X Ozone Season allowance does not constitute a property right. **(d) Title V permit revision requirements.** (1) No title V permit revision shall be required for any allocation, holding, deduction, or transfer of TR NO_X Ozone Season allowances in accordance with 40 CFR part 97, subpart BBBBB. (2) This permit incorporates the TR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR 97.530 through 97.535, and the requirements for a continuous emission monitoring system (pursuant to 40 CFR part 75, subparts B and H), an excepted monitoring system (pursuant to 40 CFR part 75, appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR 75.19), and an alternative monitoring system (pursuant to 40 CFR part 75, subpart E). Therefore, the Description of TR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this title V permit using minor permit modification procedures in accordance with 40 CFR 97.506(d)(2) and 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B). **(e) Additional recordkeeping and reporting requirements.** (1) Unless otherwise provided, the owners and operators of each TR NO_X Ozone Season source and each TR NO_X Ozone Season unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) 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 Administrator. (i). The certificate of representation under 40 CFR 97.516 for the designated representative for the source and each TR NO_X Ozone Season unit 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 certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 CFR 97.516 changing the designated representative. (ii). All emissions monitoring information, in accordance with 40 CFR part 97, subpart BBBBB. (iii). Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to

Table IV–13: Cross State Air Pollution Rule (CSAPR)	
	demonstrate compliance with the requirements of, the TR NO_X Ozone Season Trading Program. (2) The designated representative of a TR NO_X Ozone Season source and each TR NO_X Ozone Season unit at the source shall make all submissions required under the TR NO_X Ozone Season Trading Program, except as provided in 40 CFR 97.518. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a title V operating permit program in 40 CFR parts 70 and 71. **(f) Liability.** (1) Any provision of the TR NO_X Ozone Season Trading Program that applies to a TR NO_X Ozone Season source or the designated representative of a TR NO_X Ozone Season source shall also apply to the owners and operators of such source and of the TR NO_X Ozone Season units at the source. (2) Any provision of the TR NO_X Ozone Season Trading Program that applies to a TR NO_X Ozone Season unit or the designated representative of a TR NO_X Ozone Season unit shall also apply to the owners and operators of such unit. **(g) Effect on other authorities.** No provision of the TR NO_X Ozone Season Trading Program or exemption under 40 CFR 97.505 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a TR NO_X Ozone Season source or TR NO_X Ozone Season unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act. **C. 40 CFR Part 97 Subpart CCCCC-TR SO_2 Group 1 Trading Program** **TR SO_2 Group 1 Trading Program requirements (40 CFR 97.606)** **(a) Designated representative requirements.** The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 40 CFR 97.613 through 97.618. **(b) Emissions monitoring, reporting, and recordkeeping requirements.** (1) The owners and operators, and the designated representative, of each TR SO_2 Group 1 source and each TR SO_2 Group 1 unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.630 (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions,

Table IV–13: Cross State Air Pollution Rule (CSAPR)	
	and long-term cold storage), 97.631 (initial monitoring system certification and recertification procedures), 97.632 (monitoring system out-of-control periods), 97.633 (notifications concerning monitoring), 97.634 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and 97.635 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements). (2) The emissions data determined in accordance with 40 CFR 97.630 through 97.635 shall be used to calculate allocations of TR SO_2 Group 1 allowances under 40 CFR 97.611(a)(2) and (b) and 97.612 and to determine compliance with the TR SO_2 Group 1 emissions limitation and assurance provisions under paragraph (c) below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 CFR 97.630 through 97.635 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero. **(c) SO_2 emissions requirements.** (1) TR SO_2 Group 1 emissions limitation. (i). As of the allowance transfer deadline for a control period in a given year, the owners and operators of each TR SO_2 Group 1 source and each TR SO2 Group 1 unit at the source shall hold, in the source's compliance account, TR SO_2 Group 1 allowances available for deduction for such control period under 40 CFR 97.624(a) in an amount not less than the tons of total SO_2 emissions for such control period from all TR SO_2 Group 1 units at the source. (ii). If total SO_2 emissions during a control period in a given year from the TR SO_2 Group 1 units at a TR SO_2 Group 1 source are in excess of the TR SO_2 Group 1 emissions limitation set forth in paragraph (c)(1)(i) above, then: (A). The owners and operators of the source and each TR SO_2 Group 1 unit at the source shall hold the TR SO_2 Group 1 allowances required for deduction under 40 CFR 97.624(d); and (B). The owners and operators of the source and each TR SO_2 Group 1 unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a

Table IV–13: Cross State Air Pollution Rule (CSAPR)	
	separate violation 40 CFR part 97, subpart CCCCC and the Clean Air Act. (2) TR SO_2 Group 1 assurance provisions. (i). If total SO_2 emissions during a control period in a given year from all TR SO_2 Group 1 units at TR SO_2 Group 1 sources in the state exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such SO_2 emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) TR SO_2 Group 1 allowances available for deduction for such control period under 40 CFR 97.625(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR 97.625(b), of multiplying— (A). The quotient of the amount by which the common designated representative's share of such SO_2 emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state for such control period, by which each common designated representative's share of such SO_2 emissions exceeds the respective common designated representative's assurance level; and (B). The amount by which total SO_2 emissions from all TR SO_2 Group 1 units at TR SO_2 Group 1 sources in the state for such control period exceed the state assurance level. (ii). The owners and operators shall hold the TR SO_2 Group 1 allowances required under paragraph (c)(2)(i) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period. (iii). Total SO_2 emissions from all TR SO_2 Group 1 units at TR SO_2 Group 1 sources in the state during a control period in a given year exceed the state assurance level if such total SO_2 emissions exceed the sum, for such control period, of the state SO_2 Group 1 trading budget under 40 CFR 97.610(a)

Table IV–13: Cross State Air Pollution Rule (CSAPR)	
	and the state's variability limit under 40 CFR 97.610(b). (iv). It shall not be a violation of 40 CFR part 97, subpart CCCCC or of the Clean Air Act if total SO_2 emissions from all TR SO_2 Group 1 units at TR SO_2 Group 1 sources in the state during a control period exceed the state assurance level or if a common designated representative's share of total SO_2 emissions from the TR SO_2 Group 1 units at TR SO_2 Group 1 sources in the state during a control period exceeds the common designated representative's assurance level. (v). To the extent the owners and operators fail to hold TR SO_2 Group 1 allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) above, (A). The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and (B). Each TR SO_2 Group 1 allowance that the owners and operators fail to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) above and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart CCCCC and the Clean Air Act. (3) Compliance periods. (i). A TR SO_2 Group 1 unit shall be subject to the requirements under paragraph (c)(1) above for the control period starting on the later of January 1, 2015 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.630(b) and for each control period thereafter. (ii). A TR SO_2 Group 1 unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of January 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.630(b) and for each control period thereafter. (4) Vintage of allowances held for compliance. (i). A TR SO_2 Group 1 allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year must be a TR SO_2 Group 1 allowance that was allocated for such control period or a control period in a prior year. (ii). A TR SO_2 Group 1 allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (2)(i) through (iii) above for a control period in a given year must be a TR SO_2 Group 1 allowance that was allocated for a control period in a prior year or the control period in the given year or

Table IV–13: Cross State Air Pollution Rule (CSAPR)	
	in the immediately following year. (5) Allowance Management System requirements. Each TR SO_2 Group 1 allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR part 97, subpart CCCCC. (6) Limited authorization. A TR SO_2 Group 1 allowance is a limited authorization to emit one ton of SO_2 during the control period in one year. Such authorization is limited in its use and duration as follows: (i). Such authorization shall only be used in accordance with the TR SO_2 Group 1 Trading Program; and (ii). Notwithstanding any other provision of 40 CFR part 97, subpart CCCCC, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act. (7) Property right. A TR SO_2 Group 1 allowance does not constitute a property right. **(d) Title V permit revision requirements.** (1) No title V permit revision shall be required for any allocation, holding, deduction, or transfer of TR SO_2 Group 1 allowances in accordance with 40 CFR part 97, subpart CCCCC. (2) This permit incorporates the TR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR 97.630 through 97.635, and the requirements for a continuous emission monitoring system (pursuant to 40 CFR part 75, subparts B and H), an excepted monitoring system (pursuant to 40 CFR part 75, appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR part 75.19), and an alternative monitoring system (pursuant to 40 CFR part 75, subpart E), Therefore, the Description of TR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this title V permit using minor permit modification procedures in accordance with 40 CFR 97.606(d)(2) and 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B). **(e) Additional recordkeeping and reporting requirements.** (1) Unless otherwise provided, the owners and operators of each TR SO_2 Group 1 source and each TR SO_2 Group 1 unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) 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 Administrator.

Table IV–13: Cross State Air Pollution Rule (CSAPR)	
	(i). The certificate of representation under 40 CFR 97.616 for the designated representative for the source and each TR SO_2 Group 1 unit 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 certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 CFR 97.616 changing the designated representative. (ii). All emissions monitoring information, in accordance with 40 CFR part 97, subpart CCCCC. (iii). Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the TR SO_2 Group 1 Trading Program. (2) The designated representative of a TR SO_2 Group 1 source and each TR SO_2 Group 1 unit at the source shall make all submissions required under the TR SO_2 Group 1 Trading Program, except as provided in 40 CFR 97.618. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a title V operating permit program in 40 CFR parts 70 and 71. **(f) Liability.** (1) Any provision of the TR SO_2 Group 1 Trading Program that applies to a TR SO_2 Group 1 source or the designated representative of a TR SO_2 Group 1 source shall also apply to the owners and operators of such source and of the TR SO_2 Group 1 units at the source. (2) Any provision of the TR SO_2 Group 1 Trading Program that applies to a TR SO_2 Group 1 unit or the designated representative of a TR SO_2 Group 1 unit shall also apply to the owners and operators of such unit. **(g) Effect on other authorities.** No provision of the TR SO_2 Group 1 Trading Program or exemption under 40 CFR 97.605 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a TR SO_2 Group 1 source or TR SO_2 Group 1 unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.
13.2	**<u>Testing Requirements</u>:**

Table IV–13: Cross State Air Pollution Rule (CSAPR)	
	A, B & **C**: See Monitoring Requirements.
13.3	**Monitoring Requirements:** **A. 40 CFR Part 97 Subpart AAAAA-TR NO_X Annual Trading Program** The Permittee shall comply with the monitoring requirements found in §97.406, §97.430, and §97.434 for the NO_X Annual Trading Program. **B. 40 CFR Part 97 Subpart BBBBB-TR NO_X Ozone Season Trading Program** The Permittee shall comply with the monitoring requirements found in §97.506, §97.530, and §97.534 for the NO_X Ozone Season Trading Program. **C. 40 CFR Part 97 Subpart CCCCC-TR SO_2 Group 1 Trading Program** The Permittee shall comply with the monitoring requirements found in §97.606, §97.630, §97.631, §97.632, and §97.633. The Permittee operates continuous emission monitoring system (CEMS) pursuant to 40 CFR Part 75, Subpart B (for SO_2 monitoring) and 40 CFR Part 75, Subpart H (for NO_X monitoring).
13.4	**Record Keeping Requirements:** **A. 40 CFR Part 97 Subpart AAAAA-TR NO_X Annual Trading Program** The Permittee shall comply with the recordkeeping requirements found in §97.406, §97.430, and §97.434 for the NO_X Annual Trading Program. **B. 40 CFR Part 97 Subpart BBBBB-TR NO_X Ozone Season Trading Program** The Permittee shall comply with the recordkeeping requirements found in §97.506, §97.530, and §97.534 for the NO_X Ozone Season Trading Program. **C. 40 CFR Part 97 Subpart CCCCC-TR SO_2 Group 1 Trading Program** The Permittee shall comply with the recordkeeping requirements found in §97.606, §97.630, and §97.634.
13.5	**Reporting Requirements:**

Table IV–13: Cross State Air Pollution Rule (CSAPR)	
	A. 40 CFR Part 97 Subpart AAAAA-TR NO_X Annual Trading Program The Permittee shall comply with the reporting requirements found in §97.406, §97.430, §97.433 and §97.434 for the NO_X Annual Trading Program. **B. 40 CFR Part 97 Subpart BBBBB-TR NO_X Ozone Season Trading Program** The Permittee shall comply with the reporting requirements found in §97.506, §97.530, §97.533, and §97.534 for the NO_X Ozone Season Trading Program. **C. 40 CFR Part 97 Subpart CCCCC-TR SO_2 Group 1 Trading Program** The Permittee shall comply with the reporting requirements found in §97.606, §97.630, §97.633 and §97.634.

"A permit shield shall cover the applicable requirements identified for the emissions unit(s) listed in the table above."

SECTION V INSIGNIFICANT ACTIVITIES

This section provides a list of insignificant emissions units that were reported in the Title V permit application. The applicable Clean Air Act requirements, if any, are listed below the insignificant activity.

(1) No. 4 Stationary internal combustion engines with an output less than 500 brake horsepower (373 kilowatts) and which are not used to generate electricity for sale or for peak or load shaving;

These *affected units* are subject to the following requirements:

(A) COMAR 26.11.09.05E(2), Emissions During Idle Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.

(B) COMAR 26.11.09.05E(3), Emissions During Operating Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.

(C) Exceptions:

(i) COMAR 26.11.09.05E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.

(ii) COMAR 26.11.09.05E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:

(a) Engines that are idled continuously when not in service: 30 minutes
(b) all other engines: 15 minutes.

(iii) COMAR 26.11.09.05E(2) & (3) do not apply while maintenance, repair or testing is being performed by qualified mechanics.

(D) COMAR 26.11.36.03A(1), which establishes that the Permittee may not operate an emergency generator except for emergencies, testing and maintenance purposes.

(E) COMAR 26.11.36.03A(5), which establishes that the Permittee may not operate an emergency generator for testing and engine maintenance purposes between 12:01 a.m. and 2:00 p.m. on any day on which the Department forecasts that the air quality will be a code orange, code red, or code purple unless the engine fails a test and engine maintenance and a re-test are necessary.

(2) ✓ Water cooling towers and water cooling ponds unless used for evaporative cooling of water from barometric jets or barometric condensers, or used in conjunction with an installation requiring a permit to operate;

(3) No. 2 Unheated VOC dispensing containers or unheated VOC rinsing containers of 60 gallons (227 liters) capacity or less;

These *affected units* are subject to COMAR 26.11.19.09D, which requires that the Permittee control emissions of volatile organic compounds (VOC) from cold degreasing operations by meeting the following requirements:

(a) COMAR 26.11.19.09D(2)(b), which establishes that the Permittee shall not use any VOC degreasing material that exceeds a vapor pressure of 1 mm Hg at 20 ° C;

(b) COMAR 26.11.19.09D(3)(a—d), which requires that the Permittee implement good operating practices designed to minimize spills and evaporation of VOC degreasing material. These practices, which shall be established in writing and displayed such that they are clearly visible to operators, shall include covers (including water covers), lids, or other methods of minimizing evaporative losses, and reducing the time and frequency during which parts are cleaned;

(c) COMAR 26.11.19.09D(4), which prohibits the use of any halogenated VOC for cold degreasing.

The Permittee shall maintain on site for at least five (5) years, and shall make available to the Department upon request, the following records of operating data:

(a) Monthly records of the total VOC degreasing materials used; and

(b) Written descriptions of good operating practices designed to minimize spills and evaporation of VOC degreasing materials.

(4) Containers, reservoirs, or tanks used exclusively for:

(a) No. 16 Storage of lubricating oils;

(b) No. 13 Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel;

(5) ✓ Charbroilers and pit barbecues as defined in COMAR 26.11.18.01 with a total cooking area of 5 square feet (0.46 square meter) or less;

(6) ✓ Comfort air conditioning subject to requirements of Title VI of the Clean Air Act;

For the following, attach additional pages as necessary:

(7) any other emissions unit, not listed in this section, with a potential to emit less than the "de minimus" levels listed in COMAR 26.11.02.10X (list and describe units):

No. 1 Sandblasting booth

SECTION VI STATE-ONLY ENFORCEABLE CONDITIONS

The Permittee is subject to the following State-only enforceable requirements:

1. **Applicable Regulations**

COMAR 26.11.06.08 – Nuisance. "An installation or premises may not be operated or maintained in such a manner that a nuisance or air pollution is created. Nothing in this regulation relating to the control of emissions may in any manner be consumed as authorizing or permitting the creation of, or maintenance of, nuisance or air pollution."

COMAR 26.11.06.09 - Odors. "A person may not cause or permit the discharge into the atmosphere of gases, vapors, or odors beyond the property line in such a manner that a nuisance or air pollution is created."

Emissions Unit Number(s): FSC-BS-Unit1 and FSC-BS-Unit2

FSC-BS-Unit1 and FSC-BS-Unit2: Two (2) solid fossil fuel fired generating units with No.2 oil used for start-up purposes. These Units are also capable of re-burning high carbon flyash with the solid fuel/coal that has been recovered from the flyash separation equipment on site.

Applicable Standards/Limits:

PM CEMS Consent Agreement signed April 19, 2016.

1. Raven Power shall maintain and operate a Particulate Matter Continuous Emissions Monitoring System ("PM CEMS") downstream of all pollution control devices to record particulate emissions in the flue gas exiting the stacks of Brandon Shores Units 1 and 2 at all times when Units 1 or 2 are operating. Raven Power shall use all reasonable efforts to keep the PM CEMS continuously operating and producing data whenever the Unit served by the applicable PM CEMS is operating, such that the PM CEMS obtains valid hourly averages for a minimum of ninety five (95) percent of all Units operating hours in a calendar quarter. If in any calendar quarter the valid PM CEMS data is less than ninety five (95) percent, Raven Power shall submit a report to the Department within thirty (30) days of the end of the quarter which shall include:
a. The reason for the monitoring downtime; and
b. All corrective actions identified to improve valid PM CEMS data collection to at least ninety five (95) percent of all Unit operating hours. The report shall identify which corrective actions have been implemented, and shall include a completion schedule for any corrective actions which have not yet been implemented.

2. Notwithstanding any other provision of this Consent Agreement, up to a total of 24 operating hours of invalid data during any calendar quarter shall not be considered a failure to comply with this Consent Agreement unless Brandon Shores failed to use reasonable efforts to operate the PM CEMS on that Unit during the periods of downtime.

3. Each PM CEMS shall be comprised of a continuous particle mass monitor measuring particulate matter concentration in grains per dry gas standard cubic feet on a 24-hour rolling average basis, unless State or federal law or regulations require a different averaging period or different procedures, in which case, Raven Power shall be subject to applicable state or federal requirements.

4. Raven Power shall calibrate and operate both PM CEMS in accordance with the Quality Assurance/Quality Control ("QA/QC") protocol previously submitted to and approves by the Department pursuant to the Consent Decree, and developed in accordance with 40 CFR Part 60. The QA/QC protocol may be revised as agreed in writing by Raven Power and the Department.

5. PM CEMS data shall be used to demonstrate compliance with applicable particulate matter emissions limitations for Brandon Shores Units 1 and 2. Raven Power shall submit quarterly PM CEMS reports to the Department that comply with COMAR 26.11.01.11E. All data shall be reported in 24-hour rolling averages.

6. Raven Power shall maintain, in an electronic database, the average emission values recorded by each PM CEMS.

7. Raven Power agrees not to contest the inclusion and incorporation of continuing obligations of this Consent Agreement into future Title V operating permits applicable to the Brandon Shores electric generating station.

Emissions Unit Number(s): FSC-BS-Unit1 and FSC-BS-Unit2 & FSC-HAW-Unit2 and FSC-HAW-Unit3

FSC-BS-Unit1 and FSC-BS-Unit2: Two (2) solid fossil fuel fired generating units with No.2 oil used for start-up purposes. These Units are also capable of re-burning high carbon flyash with the solid fuel/coal that has been recovered from the flyash separation equipment on site.

FSC-HAW-Unit2: H.A. Wagner Unit 2 is a coal fired unit with natural gas used for start-up.
FSC-HAW-Unit3: H.A. Wagner Unit 3 is a coal fired unit with natural gas used for start-up.

Applicable Standards/Limits:
COMAR 26.11.01.04 - Testing and Monitoring.
"A. Requirements for Testing.
(1) The Department may require any person to conduct or have conducted testing to determine compliance with this subtitle. The Department, at its option, may witness or conduct these tests. This testing will be done at a reasonable time, and all information gathered during a testing operation will be provided to both parties."

The Permittee shall test for lead emissions once during the term of this permit. The Permittee shall submit a test protocol/notification to the Department for approval at least 30 days prior to test and a notice of intent to test at least 10 days prior to the scheduled test date. The Permittee shall submit the results of the lead emission tests in a final report within 60 days from the test completion. The Permittee shall maintain records of the results of the lead emission tests on site for a minimum of at least 5 years.

Emissions Unit Number(s): FSC-BS-Unit1 and FSC-BS-Unit2 & FSC-HAW-Unit1 thru FSC-HAW-Unit4

FSC-BS-Unit1 and FSC-BS-Unit2: Two (2) solid fossil fuel fired generating units with No.2 oil used for start-up purposes. These Units are also capable of re-burning high carbon fly ash with the solid fuel/coal that has been recovered from the fly ash separation equipment on site. **[3-0015 & 3-0016]**

FSC-HAW-Unit1: H.A. Wagner Unit 1 is a No. 6 oil or natural gas fired unit. **[5-0489]**

FSC-HAW-Unit2: H.A. Wagner Unit 2 is a coal fired unit with natural gas used for start-up. **[3-0017]**
FSC-HAW-Unit3: H.A. Wagner Unit 3 is a coal fired unit with natural gas used for start-up. **[3-0003]**
FSC-HAW-Unit4: H.A. Wagner Unit 4 is a No. 6 oil fired unit with natural gas fired used for start-up. [**4-0017]**

Applicable Standards/Limits:

For FSC-BS-Unit1 and FSC-BS-Unit2:
COMAR 26.11.09.05 – **Visible Emissions**
"C. Fuel Burning Equipment Subject to Federal COM Requirements. Except for owners or operators of fuel burning equipment subject to any federal requirement that mandates operation of a COM and as provided in §D of this regulation, the owner or operator of fuel burning equipment required to install and operate a COM may discontinue the operation of the COM on fuel burning equipment that is served by a flue gas desulfurization device:
(1) When emissions from the equipment do not bypass the flue gas desulfurization device serving the equipment;
(2) When the flue gas desulfurization device serving the equipment is in operation;
(3) If the owner or operator has demonstrated to the Department's satisfaction, in accordance with 40 CFR §75.14, as amended, and all other applicable State and federal requirements, that water vapor is present in the flue gas from the equipment and would impede the accuracy of opacity measurements; and
(4) If the owner or operator has fully implemented an alternative plan, approved by the Department, for monitoring opacity levels and particulate matter emissions from the stack that includes:
(a) A schedule for monthly observations of visible emissions from the stack by a person trained to perform Method 9 observations; and
(b) Installation and operation of a particulate matter CEM that complies with all applicable State and federal requirements for particulate matter CEMs."

"D. If, for units equipped with a flue gas desulfurization device, emissions bypass the device and are discharged through a bypass stack, the bypass stack shall be equipped with a COM approved by the Department."

For FSC-HAW-Unit1 thru FSC-HAW-Unit4
COMAR 26.1.09.05A(4): Fuel Burning Equipment Required to Operate a COM. The owner or operator of fuel burning equipment that is subject to the requirement to install and operate a COM shall demonstrate compliance with the applicable visible emissions limitation specified in §A(1) and (2) of this regulation as follows:
(a) For units with a capacity factor greater than 25 percent, until December 31,

2009, compliance is achieved if visible emissions do not exceed the applicable visible emissions limitation in §A(1) and (2) of this regulation for more than 4 percent of the unit's operating time in any calendar quarter, during which time visible emissions:
(i) Do not exceed 40.0 percent opacity, except for 5.0 hours or 0.5 percent of the unit's operating time, whichever is greater;
(ii) Do not exceed 70.0 percent opacity for more than four (4) 6-minute periods, except that coal-fired units equipped with electrostatic precipitators may exceed 70.0 percent opacity for no more than 2.2 hours; and
(iii) On any calendar day, do not exceed the applicable visible emissions limitation in §A(1) and (2) of this regulation for more than 4.1 hours, during which time visible emissions do not exceed 40.0 percent opacity for more than 1.4 hours and do not exceed 70.0 percent opacity for more than two (2) six-minute periods;
(b) For units with a capacity factor greater than 25 percent, beginning January 1, 2010, compliance is achieved if visible emissions do not exceed the applicable visible emissions limitation in §A(1) and (2) of this regulation for more than 2 percent of the unit's operating time in any calendar quarter, during which time visible emissions:
(i) Do not exceed 40.0 percent opacity, except for 5.0 hours or 0.5 percent of the unit's operating time, whichever is greater;
(ii) Do not exceed 70.0 percent opacity for more than four (4) six-minute periods, except that coal-fired units equipped with electrostatic precipitators may exceed 70.0 percent opacity for no more than 2.2 hours; and
(iii) On any calendar day, do not exceed the applicable visible emissions limitation in §A(1) and (2) of this regulation for more than 4.1 hours, during which time visible emissions do not exceed 40.0 percent opacity for more than 1.4 hours and do not exceed 70.0 percent opacity for more than two 6-minute periods;
(c) For units with a capacity factor equal to or less than 25 percent that operate more than 300 hours per quarter, beginning July 1, 2009, compliance with the applicable visible emissions limitation in §A(1) and (2) of this regulation is achieved if, during a calendar quarter, visible emissions do not exceed the applicable standard for more than 20.0 hours, during which time visible emissions:
(i) Do not exceed 40.0 percent opacity for more than 2.2 hours;
(ii) Do not exceed 70 percent for more than four 6-minute periods; and
(iii) On any calendar day, do not exceed the applicable visible emissions limitation in §A(1) and (2) of this regulation for more than 4.1 hours, during which time visible emissions do not exceed 40.0 percent opacity for more than 1.4 hours and do not exceed 70.0 percent opacity for more than two 6-minute periods; and
(d) For units with a capacity factor equal to or less than 25 percent that operate less than 300 hours per quarter, beginning July 1, 2009, compliance with the

applicable visible emissions limitation in §A(1) and (2) of this regulation is achieved if, during a calendar quarter, visible emissions do not exceed the applicable standard for more than 12.0 hours, during which time visible emissions:
(i) Do not exceed 40.0 percent opacity for more than 2.2 hours;
(ii) Do not exceed 70.0 percent opacity for more than four 6-minute periods; and
(iii) On any calendar day, do not exceed the applicable visible emissions limitation in §A(1) and (2) of this regulation for more than 4.1 hours, during which time visible emissions do not exceed 40.0 percent opacity for more than 1.4 hours and do not exceed 70.0 percent opacity for more than two 6-minute periods.

COMAR 26.11.09.05B. Determining Violations.
(1) For each unit required to operate a COM pursuant to COMAR 26.11.01.10A(1)(a) and (b), each day during a calendar quarter when the opacity of emissions from that unit during the calendar quarter or calendar day, as applicable, exceeds the emission limitations in §A(4)(a), (b), (c) and (d) of this regulation shall constitute a separate day of violation.
(2) A violation of §A(4)(a)(i), (ii), or (iii), §A(4)(b)(i), (ii) or (iii), §A(4)(c)(i), (ii) or (iii), or §A(4)(d)(i), (ii) or (iii), of this regulation, as applicable, that occur on the same day shall constitute separate violations.
(3) A daily violation that occurs during the same calendar quarter as a quarterly violation is a separate violation.

Operational Requirement **For FSC-HAW-Unit1 and FSC-HAW-Unit4**
Note: Requirement applies when burning used oil for energy recovery:

(1) The Permittee shall determine that used oil that is to be burned for energy recovery meets the fuel specifications of COMAR 26.11.09.10B by performing analyses or obtaining copies of analyses or other information documenting that the used oil fuel meets the specifications.

(2) The Permittee shall keep copies of analyses of the used oil (or other information used to make the determination) for three years.

Healthy Air Act Requirements
These regulations became effective under an Emergency Action on January 18, 2007 and were adopted as permanent regulations on June 17, 2007. They implement the requirements of the Healthy Air Act (Ch. 23, Acts of 2006), which was signed into law on April 6, 2006 and which established emission limitations and related requirements for NO_X, SO_2 and mercury. Regulations .1-.03, .03E,

.05 and .06 related to the reductions of NO_X, and SO_2 emissions were submitted to EPA as a revision to Maryland's State Implementation Plan (SIP) on June 12, 2007. The requirements for NO_X, and SO_2 emissions, all except for one were approved by EPA, as a SIP revision on September 4, 2008 with an effective date of October 6, 2008. The requirements for mercury emissions are not part of the Maryland's SIP and are therefore, part of the State-Only Section.

Emissions Unit Number(s): FSC-BS-Unit1 and FSC-BS-Unit2; FSC-HAW-Unit2 and FSC-HAW-Unit3

FSC-BS-Unit1 and FSC-BS-Unit2: Two (2) solid fossil fuel fired generating units with No.2 oil used for start-up purposes. These Units are also capable of re-burning high carbon fly ash with the solid fuel/coal that has been recovered from the fly ash separation equipment on site. **[3-0015 & 3-0016]**

FSC-HAW-Unit2: H.A. Wagner Unit 2 is a coal fired unit with natural gas used for start-up. **[3-0017]**
FSC-HAW-Unit3: H.A. Wagner Unit 3 is a coal fired unit with natural gas used for start-up. [**3-0003]**

Applicable Regulations:

COMAR 26.11.27 - Emission Limitations for Power Plant
COMAR 26.11.27.03 – General Requirements
A. An electric generating unit subject to this chapter shall comply with the emission limitations for NO_X, SO_2, and mercury as provided in this regulation.
B. NO_X Emission Limitations.
Healthy Air Act State-Only enforceable NO_X requirement
COMAR 26.11.27.03B(7)(iii) – "Not later than December 31 of the year in which the emission limitation is exceeded, the owner or operator of the affected generating unit or units transfers to the Maryland Environmental Surrender Account, ozone season NO_X allowances equivalent in number to the tons of NO_X emitted in excess of the emission limitation in §B(4) or (6), as applicable".

COMAR 26.11.27.03D. Mercury Emission Limitations.
(1) For the 12 months beginning January 1, 2010 and ending with the 12 months beginning December 1, 2012 to December 1, 2013, each affected facility shall meet 12-month rolling average removal efficiency for mercury of at least 80 percent.
(2) For the 12 months beginning January 1, 2013 and thereafter, each affected facility shall meet 12-month rolling average removal efficiency for mercury of at least 90 percent.
(3) The mercury removal efficiency required in §D(1) and (2) of this regulation shall be determined in accordance with Regulation .04 of this chapter.

COMAR 26.11.27.04 - Determining the Mercury Removal Efficiency for Affected Facilities.
A. The procedures of §§B—F of this regulation shall be used to demonstrate compliance with the 12-month rolling average removal efficiency required for mercury by Regulation .03D of this chapter. The owner or operator of an affected facility shall notify the Department of the compliance demonstration method it has elected from §§D—F of this regulation on or before January 1, 2010, for the compliance period that commences on that date and on or before January 1, 2013, for the compliance period that commences on that date. The owner or operator of an electric generating unit that elects to demonstrate compliance with the required mercury removal efficiency by meeting the mass emissions limitation in §F of this regulation shall utilize that same method for all other electric generating units in the system. Once elected for each affected facility or system, as applicable, the option may not be changed during the designated compliance period, but may be changed for the next compliance period.

Note: Fort Smallwood Complex selected demonstrating compliance by Meeting a Mercury Mass Emission Cap COMAR 26.11.27.04F(1) and (2) per letter signed by Edwin Much to Ralph Hall dated December 7,2009.

F. Demonstrating Compliance by Meeting a Mercury Mass Emission Cap.
(1) Compliance with the required mercury removal efficiency is demonstrated at an affected facility when the mass emissions from all affected facilities in a system, measured in pounds as a 12-month rolling average, do not exceed the applicable emission limits in §F(2) of this regulation.

(2) Mercury Emission Limits.

Affected Facility	Emission Limits Pounds per Year Beginning
	January 1, 2013
Brandon Shores	46
Wagner	33

(3) In the event that an electric generating unit at an affected facility subject to this chapter permanently ceases operation, the mass emission limitation in §F(2) of this regulation which is applicable to that affected facility shall be reduced proportionally based on the relative capacity, in megawatts, of all the electric generating units at the affected facility which are subject to this regulation.
(4) In the event that an entire affected facility within a system permanently ceases operation, the total mass emission limitation in §F(2) which is applicable

to the system shall be reduced by the mass emission limitation applicable to the affected facility.
(5) Except during periods of startup, shutdown, malfunction or maintenance, the owner or operator of an electric generating unit shall ensure that mercury control measures are continuously employed on each unit and properly adjusted for optimal control taking into consideration the operating conditions.

COMAR 26.11.27.05 - Monitoring and Reporting Requirements.
A. Compliance with the emission limitations in this chapter shall be demonstrated with a continuous emission monitoring system that is installed, operated, and certified in accordance with 40 CFR Part 75.

COMAR 26.11.27.05 - Monitoring and Reporting Requirements.
B. Beginning with calendar year 2007 and each year thereafter, the owner or operator of each electric generating unit subject to this chapter shall submit an annual report to the Department, the Department of Natural Resources, and the Public Service Commission. The report for each calendar year shall be submitted not later than March 1 of the following year.

C. Each report shall include:
(1) Emissions performance results related to compliance with the emission requirements under this chapter;
(2) Emissions of NO_X and SO_2, and beginning with calendar year 2010, mercury, emitted during the previous calendar year from each affected unit;
(3) A current compliance plan; and
(4) Any other information requested by the Department.

Emissions Unit Number(s): FSC-BS-MH and FSC-HAW-MH

FSC-BS-MH
The Brandon Shores material handling system consists of various equipment and processes to transport coal, fly ash, hydrated lime or equivalent, powdered activated carbon and other materials. There are facilities to mix coal with additives to reduce stack emissions. Equipment and processes may include unloading scoops, transfer point, storage piles, silos, bin vents, and other material handling equipment. [**6-1143]**

FSC-HAW-MH
The H.A. Wagner material handling system consists of various equipment and processes to transport coal, fly ash, hydrated lime or equivalent, powdered activated carbon and other materials. There are facilities to mix coal with

additives to reduce stack emissions. Equipment and processes may include unloading scoops, transfer point, storage piles, silos, bin vents, and other material handling equipment. [**6-1144**]

Applicable Regulations:

Management of Coal Combustion Byproducts
COMAR 26.04.10.03 - General Restrictions and Specifically Prohibited Acts.
COMAR 26.04.10.03B(3) - Air Pollution
"A person may not engage in the disposal, storage, transportation, processing, handling, or use of coal combustion byproducts without taking reasonable precautions to prevent particulate matter from becoming airborne. These reasonable precautions shall include, when appropriate as determined by the Department, those precautions described in COMAR 26.11.06.03C and D."

COMAR 26.04.10.03B(4) - Transportation
"In addition to the requirements of paragraph (a), a person may not transport coal combustion byproducts without taking reasonable precautions to prevent particulate matter from becoming airborne. These reasonable precautions shall include, at a minimum the following:
(a)Vehicles transporting coal combustion byproducts shall be fully enclosed, or fully enclosed on all sides and covered with a firmly secured canvas or similar type covering, so as to prevent any coal combustion byproducts from blowing off, falling off, or spilling out of the vehicle or the coal combustion byproducts shall be handled and transported in sealed containers designed for transportation of powdery solids;
(b)Before leaving a site where coal combustion byproducts are loaded or off-loaded, vehicles transporting coal combustion byproducts shall be rendered clean and free of excess material or debris that could blow off, fall off, or spill during transport;
(c)Coal combustion byproducts being loaded into or off-loaded from a vehicle shall be sufficiently moistened or otherwise conditioned or contained to prevent particulate coal combustion byproducts from becoming airborne or causing fugitive air emissions; and
(e)Transporters of coal combustion byproducts shall maintain an inspection log that shall be maintained in each vehicle at all times during transport of coal combustion byproducts that shall certify compliance with the standards in this regulation .03B(3)(b)."

COMAR 26.04.10.05 - Storage.
"A. A person may not store coal combustion byproducts except in accordance with the provisions of this regulation.
B. A person may not store coal combustion byproducts directly on the surface of the ground or in an unlined surface impoundment, pit, pond, or lagoon without

the authorization of the Department.
C. A person shall store coal combustion byproducts in a manner that prevents contact with waters of this State and that is designed either to minimize contact with precipitation or to collect leachate that may result from contact with precipitation.
D. A person may not use a storage system for coal combustion byproducts unless the storage system is:
(1) Designed, constructed, and installed to contain coal combustion byproducts and contaminants in the coal combustion byproducts and prevent them from being released to the environment; and
(2) Provided with a roof or other protections to prevent nuisance, air pollution, and unlawful discharges of contaminated stormwater or leachate to the waters of this State.
E. A person may not store coal combustion byproducts in an area likely to pollute the waters of this State.
F. Responsibility for the prompt control, containment, and removal of any released coal combustion byproducts or for placing coal combustion byproducts in a position likely to pollute the waters of this State shall be with the person responsible for the release, and with the owner and operator of the facility, site, or storage system where the release occurred. This responsibility shall continue until removal or clean up of any contamination or pollution from the release has been accomplished to the satisfaction of the Department.
G. The Department may impose specific requirements for the storage of coal combustion byproducts upon a determination that storage of coal combustion byproducts has caused or is likely to cause a discharge to the waters of the State, is a nuisance, or otherwise poses a threat to public health or the environment.
H. The owner and operator of a facility, site, or storage system shall ensure that:
(1) A release of coal combustion byproducts during storage operations due to spilling or overflowing does not occur;
(2) Adequate storage space is available to handle the volume of coal combustion byproducts generated and to be stored; and
(3) Transfer, handling, and storage operations are performed in a manner that shall prevent, contain, and clean up spills of coal combustion byproducts."

COMAR 26.11.15.05, which requires that the Permittee implement "Best Available Control Technology for Toxics"

COMAR 26.11.15.06, which prohibits the discharge of toxic air pollutants to the extent that such emissions will unreasonably endanger human health

Emissions Unit Number(s): FSC-BS-EG

FSC-BS-EG
The emergency generator is a 670 HP diesel-fired internal combustion engine installed at the facility to provide back-up power.

Applicable Regulations:

COMAR 26.11.36.03 - Emergency Generators and Load Shaving Units NOx Requirements.
"A. Applicability and General Requirements for Emergency Generators and Load Shaving Units.
(1) The owner or operator of an emergency generator may not operate the generator except for emergencies, testing, and maintenance purposes."
"(5) The owner or operator of an emergency generator or load shaving unit may not operate the engine for testing and engine maintenance purposes between 12:01 a.m. and 2:00 p.m. on any day on which the Department forecasts that the air quality will be a code orange, code red, or code purple unless the engine fails a test and engine maintenance and a re-test are necessary."

Note: Operations for storm avoidance are currently considered emergency operations. This regulation is under review to reconsider whether or not storm avoidance meets the definition of an emergency. Under federal NSPS and NESHAP regulations for emergency engines, hours for storm avoidance are limited to 50 hours per calendar year.

Emissions Unit Number(s): FSC-BS-Unit1 and FSC-BS-Unit2 & FSC-HAW-Unit2 and FSC-HAW-Unit3

COMAR 26.11.38 – Control of NO_X Emissions from Coal-Fired Electric Generating Units.

Applicable Regulations:

COMAR 26.11.38.02 – Applicability
"The provisions of this chapter apply to an affected electric generating unit as that term is defined in §.01B of this chapter."

COMAR 26.11.38.03 – NO_X Emission Control Requirements
A. Daily NO_X Reduction Requirements During the Ozone Season

(1) Not later than 45 days after the effective date of this regulation, the owner or operator of an affected electric generating unit shall submit a plan to the Department and EPA for approval that demonstrated how each affected electric generating unit ("the unit") will operate installed pollution control technology and combustion controls to meet the requirements of §A(2) of this regulation. The plan shall cover all modes of operation, including but not limited to normal operations, start-up, shut-down and low load operations.

(2) Beginning on May 1, 2015, for each operating day during the ozone season, the owner or operator of an affected electric generating unit shall minimize NO_X emissions by operating and optimizing the use of all installed pollution control technology and combustion controls consistent with the technological limitations, manufacturers' specification, good engineering and maintenance practices, and good air pollution control practices for minimizing emissions (as defined in 40 CFR §60.11(d)) for such equipment and the unit at all times the unit is in operation while burning any coal.

B. Ozone Season NO_X Reduction Requirements.

(1) Except as provided in §B(3) of this regulation, the owner or operator of an affected electric generating unit shall not exceed a NO_X 30-day system-wide rolling average emission rate of 0.15 lbs/MMBtu during the ozone season.

(2) The owner or operator of an affected electric generating unit subject to the provisions of this regulation shall continue to meet ozone season NO_X reduction requirements in COMAR 26.11.27.

C. Annual NO_X Reduction Requirements.

The owner of operator of an affected electric generating unit subject to the provisions of this regulation shall continue to meet the annual NOX reduction requirements in COMAR 26.11.27.

COMAR 26.11.38.04 – Additional NO_X Emission Control Requirements

A. This regulation applies to C.P. Crane units 1 and 2, Chalk Point unit 2, Dickerson units 1, 2, and 3, and **H.A. Wagner unit 2**.

B. General Requirements. The owner of operator of the affected electric generating units subject to this regulation shall choose form the following:

(1) Not later than June 1, 2020:

a. Install and operate a selective catalytic reduction (SCR) control system; and

b. Meet a NO_X emission rate of 0.09 lbs/MMBtu, as determined on a 30-day rolling average during the ozone season;

(2) Not later than June 1, 2020, permanently retire the unit;

(3) Not later than June 1, 2020, permanently switch fuel from coal to natural gas for the init;

(4) Not later than June 1, 2020, meet either a NO_X emission rate of 0.13

lbs/MMBtu as determined on a 24-hour system wide block average or a system wide NO_X tonnage cap of 21 tons per day during the ozone season.

C. When option B(4) of this regulation is selected:
   (1) Not later than May 1, 2016, the owner of operator of an affected electric generating unit shall not exceed a NO_X 30-day system wide rolling average emission rate of 0.13 lbs/MMBtu during the ozone season.
   (2) Not later than May 1, 2018, the owner of operator of an affected electric generating unit shall not exceed a NO_X 30-day system wide rolling average emission rate of 0.11 lbs/MMBtu during the ozone season.
   (3) Not later than May 1, 2020, the owner of operator of an affected electric generating unit shall not exceed a NO_X 30-day system wide rolling average emission rate of 0.09 lbs/MMBtu during the ozone season.

D. In order to calculate the 24-hour system wide block average emission rate and system wide NO_X tonnage cap under §B(4) of this regulation and the system wide rolling average emission rates under §C of this regulation:
   (1) The owner or operator shall use all affected electric generating units within their system as those terms are defined in Regulation .01B of this chapter; and
   (2) The unit or unit NO_X emissions from all operations during the entire operating day shall be used where the unit of units burn coal at any time during the operating day.

E. Beginning June 1, 2020, if the unit or units included in a system, as that system existed on May 1, 2015, is no longer directly or indirectly owned , operated or controlled by the owner, operator or controller of the system:
   (1) The remaining units within the system shall meet either:
      a. The requirements of §B(1)-(3) of this regulation; or
      b. A NO_X emission rate of 0.13 lbs/MMBtu as determined on a 24-hour system wide block average and the requirements of §C(3) of this regulation.
   (2) The unit or units no longer included in the system shall meet the requirements of §B(1)-(3) of this regulation.

F. For the purposes of this regulation, the owner includes parent companies affiliates, and subsidiaries of the owner.

COMAR 26.11.38.05 – Compliance Demonstration Requirements

A. Procedures for Demonstrating Compliance with Regulation .03A of this Chapter.

(1) An affected electric generating unit shall demonstrate, to the Department's satisfaction, compliance with Regulation .03A(2) of this chapter, using the information collected and maintained in accordance with Regulation .03A(1) of this chapter and any additional documentation available to and maintained by the affected electric generating unit.

(2) An affected electric generating unit shall not be required to submit a unit-

specific report consistent with §A(3) of this regulation when the unit emits at levels that are at or below the following rates:

Affected Unit	24-Hour Block Average NO_X Emissions in lbs/MMBtu
Brandon Shores	
Unit 1	0.08
Unit 2 <650 MWg ≥650 MWg	 0.07 0.15
H.A. Wagner	
Unit 2	0.34
Unit 3	0.07

(3) The owner or operator of an affected electric generating unit subject to Regulation .03A(2) of this chapter shall submit a unit-specific report for each day the unit exceeds its NO_X emission rate under §A(2) of this regulation, which shall include the following information for the entire operating day:
(a) Hours of operation for the unit;
(b) Hourly averages of operating temperature of installed pollution control technology;
(c) Hourly averages of heat input (MMBtu/hr);
(d) Hourly averages of output (MWh);
(e) Hourly averages of ammonia or urea flow rates;
(f) Hourly averages of NO_X emissions data (lbs/MMBtu and tons);
(g) Malfunction data;
(h) The technical and operational reason the rate was exceeded, such as:
(i) Operator error;
(ii) Technical events beyond the control of the owner or operator (e.g. acts of God, malfunctions); or
(iii) Dispatch requirements that mandate unplanned operation (e.g. start-ups and shut-downs, idling, and operation at low voltage or low load);
(i) A written narrative describing any actions taken to reduce emission rates; and
(j) Other information that the Department determines is necessary to evaluate the data or to ensure that compliance is achieved.
(4) An exceedance of the emissions rate under §A(2) of this regulation as a result of factors including but not limited to start-up, shut-down, days when the unit was directed by the electric grid operator to operate at low load or to operate pursuant to any emergency generation operations required by the electric grid operator, including necessary testing for such emergency operations, or which otherwise occurred during operations which are deemed consistent with the unit's technological limitations, manufacturers' specifications, good engineering and maintenance practices, and good air pollution control practices for minimizing emissions, shall not be considered a violation of Regulation .03A(2) of this

chapter provided that the provisions of the approved plan as required in Regulation .03A(1) of this chapter are met.
B. Procedures for Demonstrating Compliance with NO_X Emission Rates under this Chapter.
(1) Compliance with the NO_X emission rate limitations in Regulations .03B(1) and D(2), .04B(1)(b), B(4), C(1), C(2), C(3), and E(1)(b), and .05A(2) of this chapter shall be demonstrated with a continuous emission monitoring system that is installed, operated, and certified in accordance with 40 CFR Part 75.
(2) For Regulation .03B(1), .04C(1), C(2), and C(3) of this chapter, in order to calculate the 30-day system wide rolling average emission rates, if 29 system operating days are not available from the current ozone season, system operating days from the previous ozone season shall be used.
(3) For Regulation .04B(1)(b) of this chapter, in order to calculate the 30-day rolling average emission rates, if 29 operating days are not available from the current ozone season, operating days from the previous ozone season shall be used.

COMAR 26.11.38.06 – Reporting Requirements
A. Reporting Schedule
(1) Beginning 30 days after the first month of the ozone season following the effective date of this chapter, each affected electric generating unit subject to the requirements of this chapter shall submit a monthly report to the Department detailing the status of compliance with this chapter during the ozone season.
(2) Each subsequent monthly report shall be submitted to the Department not later than 30 days following the end of the calendar month during the ozone season.
B. Monthly Reports During Ozone Season. Monthly reports during the ozone season shall include:
(1) Daily pass or fail of the NO_X emission rates of .05A(2) of this chapter;
(2) The reporting information as required under .05A(3) of this chapter; and
(3) The 30-day system-wide rolling average emissions rate for each affected electric generating unit to demonstrate compliance with .03B(1), .04C(1), C(2) and C(3) of this chapter, as applicable;
(4) For an affected electric generating unit which has selected the compliance option of Regulation .04B(1) of this chapter, beginning June 1, 2020, the 30-day rolling average emission rate calculated in lbs/MMBtu;
(5) For an affected electric generating unit which has selected the compliance option of Regulation .04B(4) of this chapter, beginning June 1, 2016, the 30-day rolling average emission rate and 30-day system wide rolling average emission rate calculated in lbs/MMBtu;
(6) For an affected electric generating unit which has selected the compliance option of Regulation .04B(4) of this chapter, beginning June

1, 2020, data, information and calculation which demonstrate the system wide NO_X emission rate as determined on a 24-hr block or the actual system wide daily NO_X emissions in tons for each day during the month; and

(7) For an affected electric generating unit which has selected the compliance option of Regulation .04E(1)(b) of this chapter, beginning June 1, 2020, data, information, and calculations which demonstrate the system wide NOX emission rate as determined on a 24-hour block average for each day during the month.

COMAR 26.11.38.06 – Electric System Reliability During Ozone Season

A. In the event of emergency operations, a maximum of 12 hours of operations per system per ozone season may be removed from the calculation of the NOX limitations in Regulation .04(B)(4) of this chapter form the unit or units responding to the emergency operations provided that:
   (1) Within one business day following the emergency operation, the owner or operator of the affected electric generating unit or units notifies the Manager of the Air Quality Compliance program of the emergency operations taken by the PJM Interconnection; and
   (2) Within five business days following the emergency operation, the owner or operator of the affected electric generating unit or units provides the Department with the following information:
      (a) PJM documentation of the emergency event called and the unit or units requested to operate;
      (b) Unit or units dispatched for the emergency operation;
      (c) Number of hours that the unit or units responded to the emergency operation and the consecutive hours that will be used towards the calculation of the NO_X limitations in §.04B(4) of this chapter; and
      (d) Other information regarding efforts the owner or operator took to minimize NO_X emissions in accordance with Regulation .03A(1) of this chapter on the day that the emergency operation was called.

B. Any partial hour in which a unit operated in response to emergency operation under §A of this regulation shall constitute a full hour of operations. “

Record Keeping and Reporting:

The Permittee shall submit to the Department, by April 1 of each year during the term of this permit, a written certification of the results of an analysis of emissions of toxic air pollutants from the Permittee's facility during the previous calendar year. The analysis shall include either:

(a) a statement that previously submitted compliance demonstrations for emissions of toxic air pollutants remain valid; or

(b) a revised compliance demonstration, developed in accordance with requirements included under COMAR 26.11.15 & 16, that accounts for changes in operations, analytical methods, emissions determinations, or other factors that have invalidated previous demonstrations.