



PERMIT
Under the Environmental Conservation Law (ECL)

IDENTIFICATION INFORMATION

Permit Type: Air Title V Facility
Permit ID: 9-2938-00003/00002
Effective Date: 04/26/2011 Expiration Date: 04/25/2016

Permit Issued To: AES SOMERSET LLC
7725 LAKE RD
BARKER, NY 14012-9600

Contact: JON REIMANN
AES SOMERSET LLC
7725 LAKE RD
BARKER, NY 14012
(716) 795-9501

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Description:

AES Somerset LLC, located at 7725 Lake Road in the Town of Somerset, Niagara County, is a 675 megawatt (MW) electric generating facility originally permitted and operating under subpart Da of the New Source Performance Standards (40CFR Part 60). The primary fuels combusted by the main boiler are coal and petroleum coke (petcoke). The coal may contain a latex dust suppressant as supplied. Associated with the boiler is a coal handling system (unloading and conveying coal and petroleum coke, etc.), a No. 2 fuel oil and kerosene oil system (tanks and piping) which is used for startup and flame stabilization, a limestone handling system (unloading and conveying etc.), and other miscellaneous sources and activities related to the operation of an electric generating station. The station also includes two oil and kerosene fired boilers that are used to heat up the large boiler before it is started and two diesel fired emergency electric generators.

This permit is a renewal of the existing Prevention of Significant Deterioration (PSD) and Title V permits. This permit also allows the facility to use a trona duct injection system along with the flue gas desulfurization system to reduce sulfur dioxide emissions.

Emission Unit S00001, consists of one boiler feeding steam to one turbine generator. The boiler, emission source B0001, is a Babcock and Wilcox balanced draft, single reheat, pulverized coal, wall fired, dry bottom radiant boiler. The steam generator is designed for a maximum continuous rating of 4,845,000 lb/hr, 1005 deg F and 2620 psig steam at the superheated outlet. The boiler has 48 burners in an opposed wall-fired configuration with a heat release rate of 76,400 Btu/hr/ft² at maximum continuous rating. Emission source B0001 is equipped with an



electrostatic precipitator (ESP) to control particulate matter emissions. The precipitator is equipped with an energy management system that, based on feedback from the opacity monitor, adjusts the power levels in the precipitator to maintain the desired opacity. Sulfur Dioxide (SO₂) emissions are controlled by a trona duct injection system and a flue gas desulfurization (FGD) system. Nitrogen oxide (NO_x) emissions are controlled through the use of low-NO_x burners installed on the boiler, good combustion practices, and a Selective Catalytic Reduction (SCR) unit installed in front of the ESP. Emissions from unit S00001 exit the main 625 foot stack, emission point 00001.

Somerset has two oil fired auxiliary boilers, emission sources B000A and B000B, each with a design heat input of 195 million Btu/hr. The auxiliary boilers are used to provide steam for a cold start of the main unit. The boilers are also used for heating the buildings and for maintaining essential equipment in a hot condition when the main boiler is not operating. These boilers burn No. 2 fuel oil which is sometimes mixed with kerosene. They exhaust the combustion gases through a 300 foot stack, emission point 0001A. There are no particulate matter, sulfur dioxide or nitrogen oxides emission control technologies used on these boilers, but the sulfur content of the fuel oil is limited to no more than 1.5% by weight.

The facility operation is permitted primarily under the following regulations:

1. 6NYCRR Part 201-6 requires the facility to obtain a Title V air permit.
2. 6NYCRR Part 225-1 fuel composition and use - sulfur limitations.
3. 6NYCRR Part 227 regulates stationary combustion sources – particulates and nitrogen oxides.
4. 40 CFR 52 Subpart A.21 Prevention of Significant Deterioration of Air Quality
5. 40 CFR 60 Subpart Da standards of performance for electric utility steam generating units for which construction commenced after September 18, 1978.

During this permit renewal process the requirements for the following regulations were removed:

1. 6NYCRR Part 204, NO_x Budget Trading Program (May 1 through September 30th) because it was replaced by 6NYCRR Part 243, CAIR NO_x Ozone Trading Program,
2. 6NYCRR Part 227-3, Pre-2003 Nitrogen Oxides Emissions Budget and Allowance Program was replaced by Part 204 above,
3. 40 CFR Part 73 and 76, Acid Rain Program conditions were removed from this permit because they are contained in the Acid Rain Permit that was issued at the same time as this permit.

During this permit renewal process the requirements for the following regulations were added:

1. 6NYCRR Part 242, CO₂ Budget Trading Program,
2. 6NYCRR Part 243, CAIR NO_x Ozone Season Trading Program,
3. 6NYCRR Part 244, CAIR NO_x Annual Trading Program,
4. 6NYCRR Part 245, CAIR SO₂ Trading Program,
5. 6NYCRR Part 246, Mercury Reduction Program for Coal-Fired Electric Utility Steam Generating Stations, and
6. 40 CFR Part 64, Compliance Assurance Monitoring (CAM) - for the particulate controls and emissions on the main boiler.
7. 6NYCRR Part 225-1, Sulfur in Fuel, the sulfur in fuel oil requirements that are in the State Implementation Plan (SIP) were added to the permit. These are less restrictive than the sulfur in oil requirement that is not in the SIP and was in the previous permit.
8. 6NYCRR Part 227-2, NO_x Reasonably Available Control Requirements (RACT) – New NO_x RACT emission limit conditions replaced the previous conditions, and show that the current NO_x RACT limits end June 30, 2014. A condition was added which states that a NO_x RACT plan for July 1, 2014 and beyond is due by January 1, 2012.



The plant currently uses a system wide averaging plan to comply with the existing NOx RACT limits at the parent corporation's plants across the state.

9. 40 CFR Part 60 subpart Da, New Source Performance Standards for the main boiler – a condition was added that sets a NOx limit when any amount of subbituminous coal is fired, which is lower than the NOx limit for burning bituminous coal, yet is still higher than NOx limits from other programs.

During this permit renewal process the permit conditions for some existing requirements were updated to clarify the requirements. This did not change any emission limits. The changes were made to:

1. PSD permit conditions (40CFR Part 52A.21) that limit SO2 emissions,
2. Subpart Da of Part 60 (40CFR Part 60Da) conditions that limit SO2 emissions and set emission reduction requirements for the flue gas desulfurization system,
3. Sulfur in fuel oil requirement (6NYCRR Part 225-1), text was added explaining that the 1.5% by weight limit was not in the SIP so it was moved to the state side of the permit, and that it is more restrictive than the S in oil requirements that were added to the federal side of the permit.
4. Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, And Institutional Boilers and Process Heaters (63.7480) – This applies to the auxiliary boilers but they are exempt from the requirements of the regulation, but did need to submit an initial notification to EPA, which has been done.

The New Source Performance Standards for Industrial-Commercial-Institutional Steam Generating Units between 100 million Btu/hr and 250 million Btu/hr, 40CFR Part 60 subpart Db, does not apply to the auxiliary boilers because they were built before the applicability date of the rule.

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, the General Conditions specified and any Special Conditions included as part of this permit.

Permit Administrator: DOUGLAS E BORSCHEL
270 MICHIGAN AVE
BUFFALO, NY 14203-2915

Authorized Signature: _____ Date: ___ / ___ / ___



Notification of Other State Permittee Obligations

Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification

The permittee expressly agrees to indemnify and hold harmless the Department of Environmental Conservation of the State of New York, its representatives, employees and agents ("DEC") for all claims, suits, actions, and damages, to the extent attributable to the permittee's acts or omissions in connection with the compliance permittee's undertaking of activities in connection with, or operation and maintenance of, the facility or facilities authorized by the permit whether in compliance or not in any compliance with the terms and conditions of the permit. This indemnification does not extend to any claims, suits, actions, or damages to the extent attributable to DEC's own negligent or intentional acts or omissions, or to any claims, suits, or actions naming the DEC and arising under article 78 of the New York Civil Practice Laws and Rules or any citizen suit or civil rights provision under federal or state laws.

Item B: Permittee's Contractors to Comply with Permit

The permittee is responsible for informing its independent contractors, employees, agents and assigns of their responsibility to comply with this permit, including all special conditions while acting as the permittee's agent with respect to the permitted activities, and such persons shall be subject to the same sanctions for violations of the Environmental Conservation Law as those prescribed for the permittee.

Item C: Permittee Responsible for Obtaining Other Required Permits

The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required to carry out the activities that are authorized by this permit.

Item D: No Right to Trespass or Interfere with Riparian Rights

This permit does not convey to the permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.



LIST OF CONDITIONS

DEC GENERAL CONDITIONS

General Provisions

- Facility Inspection by the Department
- Relationship of this Permit to Other Department Orders and Determinations
- Applications for permit renewals, modifications and transfers
- Permit modifications, suspensions or revocations by the Department

Facility Level

- Submission of application for permit modification or renewal-REGION 9 HEADQUARTERS

DEC SPECIAL CONDITIONS

- Solid Waste Disposal Area (SWDA) III



DEC GENERAL CONDITIONS

****** General Provisions ******

For the purpose of your Title V permit, the following section contains state-only enforceable terms and conditions.

GENERAL CONDITIONS - Apply to ALL Authorized Permits.

Condition 1: Facility Inspection by the Department

Applicable State Requirement: ECL 19-0305

Item 1.1:

The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71-0301 and SAPA 401(3).

Item 1.2:

The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when requested by the Department.

Item 1.3:

A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site or facility. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

Condition 2: Relationship of this Permit to Other Department Orders and Determinations

Applicable State Requirement: ECL 3-0301 (2) (m)

Item 2.1:

Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.

Condition 3: Applications for permit renewals, modifications and transfers

Applicable State Requirement: 6 NYCRR 621.11

Item 3.1:

The permittee must submit a separate written application to the Department for renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing.

Item 3.2:

The permittee must submit a renewal application at least 180 days before expiration of permits for Title V Facility Permits, or at least 30 days before expiration of permits for State Facility Permits.

Item 3.3:

Permits are transferrable with the approval of the department unless specifically prohibited by the statute, regulation or another permit condition. Applications for permit transfer should be submitted to the Department for approval.



Condition 4: Permit modifications, suspensions or revocations by the Department
Applicable State Requirement: 6 NYCRR 621.13

Item 4.1:

The Department reserves the right to modify, suspend, or revoke this permit in accordance with 6NYCRR Part 621. The grounds for modification, suspension or revocation include:

- a) materially false or inaccurate statements in the permit application or supporting papers;
- b) failure by the permittee to comply with any terms or conditions of the permit;
- c) exceeding the scope of the project as described in the permit application;
- d) newly discovered material information or a material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of the existing permit;
- e) noncompliance with previously issued permit conditions, orders of the commissioner, any provisions of the Environmental Conservation Law or regulations of the Department related to the permitted activity.

****** Facility Level ******

Condition 5: Submission of application for permit modification or renewal-REGION 9 HEADQUARTERS
Applicable State Requirement: 6 NYCRR 621.6 (a)

Item 5.1:

Submission of applications for permit modification or renewal are to be submitted to:

NYSDEC Regional Permit Administrator
Region 9 Headquarters
Division of Environmental Permits
270 Michigan Avenue
Buffalo, NY 14203-2915

(716) 85



DEC SPECIAL CONDITIONS

1-7165

Condition 6: Solid Waste Disposal Area (SWDA) III

Applicable State Requirement: 6 NYCRR Part 617

Item 6.1:

Solid Waste Disposal Area (SWDA) III shall be designed and constructed in accordance with ^ NYCRR

Part 360 (solid waste facility management regulations) in effect at the time of construction according to the

terms set forth in the Certificate of Environmental Compatibility and Public Need issued by the New York

State Board on Electric Generation Siting and the Environment on December 29, 1978, as amended,

including without limitation, the Order Amending the Certificate of Environmental Compatibility and

Public Need in Case 98-F-2005, issued April 26, 1999, by the New York State Board on Electric Generation Siting and the Environment, and the Order Amending Certificate of Environmental Compatibility and Public Need in Case 04-F-1178 issued by the New York State Board on Electric

Generation Siting and the Environment on June 29, 2007. This 6 NYCRR Part 617 special condition is

implicitly included in the Title V permit to address disposal of coal combustion byproducts.

New York State Department of Environmental Conservation

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Facility DEC ID: 9293800003



Permit Under the Environmental Conservation Law (ECL)

ARTICLE 19: AIR POLLUTION CONTROL - TITLE V PERMIT

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Facility: AES SOMERSET LLC
7725 LAKE RD
BARKER, NY 14012

Authorized Activity By Standard Industrial Classification Code:
4911 - ELECTRIC SERVICES

Permit Effective Date: 04/26/2011

Permit Expiration Date: 04/25/2016



LIST OF CONDITIONS

FEDERALLY ENFORCEABLE CONDITIONS

Facility Level

- 1 6 NYCRR 200.6: Acceptable Ambient Air Quality
- 2 6 NYCRR 201-6.5 (a) (7): Fees
- 3 6 NYCRR 201-6.5 (c): Recordkeeping and reporting of compliance monitoring
- 4 6 NYCRR 201-6.5 (c) (2): Monitoring, Related Recordkeeping, and Reporting Requirements.
- 5 6 NYCRR 201-6.5 (c) (3) (ii): Compliance Certification
- 6 6 NYCRR 201-6.5 (e): Compliance Certification
- 7 6 NYCRR 202-2.1: Compliance Certification
- 8 6 NYCRR 202-2.5: Recordkeeping requirements
- 9 6 NYCRR 215.2: Open Fires - Prohibitions
- 10 6 NYCRR 200.7: Maintenance of Equipment
- 11 6 NYCRR 201-1.7: Recycling and Salvage
- 12 6 NYCRR 201-1.8: Prohibition of Reintroduction of Collected Contaminants to the air
- 13 6 NYCRR 201-3.2 (a): Exempt Sources - Proof of Eligibility
- 14 6 NYCRR 201-3.3 (a): Trivial Sources - Proof of Eligibility
- 15 6 NYCRR 201-6.5 (a) (4): Standard Requirement - Provide Information
- 16 6 NYCRR 201-6.5 (a) (8): General Condition - Right to Inspect
- 17 6 NYCRR 201-6.5 (d) (5): Standard Requirements - Progress Reports
- 18 6 NYCRR 201-6.5 (f) (6): Off Permit Changes
- 19 6 NYCRR 202-1.1: Required Emissions Tests
- 20 6 NYCRR 211.3: Visible Emissions Limited
- 21 40 CFR Part 68: Accidental release provisions.
- 22 40CFR 82, Subpart F: Recycling and Emissions Reduction
- 23 6 NYCRR 201-3.2 (c): Compliance Certification
- 24 6 NYCRR Subpart 201-6: Emission Unit Definition
- 25 6 NYCRR Subpart 201-6: Compliance Certification
- 26 6 NYCRR 207.2 (a): Compliance Certification
- 27 6 NYCRR 225-1.2 (a) (2): Compliance Certification
- 28 6 NYCRR 225-1.2 (a) (2): Compliance Certification
- 29 6 NYCRR 225-1.2 (f): Compliance Certification
- 30 6 NYCRR 227-2.3: Compliance Certification
- 31 6 NYCRR 243-1.6 (d): Excess emission requirements
- 32 6 NYCRR 243-1.6 (e): Recordkeeping and reporting requirements
- 33 6 NYCRR 243-2.1: Authorization and responsibilities of CAIR designated representative
- 34 6 NYCRR 243-8.1: General requirements
- 35 6 NYCRR 243-8.3: Out of control periods
- 36 6 NYCRR 243-8.5 (d): Quarterly reports
- 37 6 NYCRR 243-8.5 (e): Compliance certification
- 38 6 NYCRR Subpart 244-1: CAIR NOx Annual Trading Program General Conditions
- 39 6 NYCRR Subpart 244-2: Designated CAIR Representative
- 40 6 NYCRR Subpart 244-8: Compliance Certification
- 41 6 NYCRR Subpart 245-1: CAIR SO2 Trading Program General Provisions



- 42 6 NYCRR Subpart 245-2: Designated CAIR Representative
- 43 6 NYCRR Subpart 245-8: Compliance Certification
- 44 40CFR 52.21, Subpart A: Compliance Certification
- 45 40CFR 63.7506(b)(2), Subpart DDDDD: Compliance Certification
- 46 40 CFR 64.8: Elements of a Quality Improvement Plan

Emission Unit Level

- 47 6 NYCRR Subpart 201-6: Emission Point Definition By Emission Unit
- 48 6 NYCRR Subpart 201-6: Process Definition By Emission Unit

EU=S-00001,EP=00001

- 49 6 NYCRR 227-1.3 (a): Compliance Certification
- 50 6 NYCRR 227-1.4 (b): Compliance Certification
- 51 6 NYCRR 227-2.4 (a) (1) (i): Compliance Certification
- 52 6 NYCRR 227-2.4 (a) (1) (i): Compliance Certification
- 53 40CFR 52.21, Subpart A: Compliance Certification
- 54 40CFR 52.21, Subpart A: Compliance Certification
- 55 40CFR 60.42a(a)(1), NSPS Subpart Da: Compliance Certification
- 56 40CFR 60.42a(b), NSPS Subpart Da: Compliance Certification
- 57 40CFR 60.43a(a)(1), NSPS Subpart Da: Compliance Certification
- 58 40CFR 60.43a(a)(2), NSPS Subpart Da: Compliance Certification
- 59 40CFR 60.44a(a)(1), NSPS Subpart Da: Compliance Certification
- 60 40CFR 60.44a(a)(1), NSPS Subpart Da: Compliance Certification
- 61 40CFR 60.47a(a), NSPS Subpart Da: Compliance Certification
- 62 40 CFR Part 64: Compliance Certification
- 63 40 CFR Part 72: Facility Subject to Title IV Acid Rain Regulations and Permitting

EU=S-00002,EP=0001A

- 64 6 NYCRR 227-1.3 (a): Compliance Certification
- 65 6 NYCRR 227-2.4 (b) (1) (i): Compliance Certification

EU=S-00003

- 66 40CFR 60.252(c), NSPS Subpart Y: Compliance Certification

STATE ONLY ENFORCEABLE CONDITIONS

Facility Level

- 67 ECL 19-0301: Contaminant List
- 68 6 NYCRR 201-1.4: Unavoidable noncompliance and violations
- 69 6 NYCRR 211.2: Air pollution prohibited
- 70 6 NYCRR 225-1.2 (a) (2): Compliance Demonstration
- 71 6 NYCRR 227-1.4 (a): Continuous Opacity Monitor Required
- 72 6 NYCRR 242-1.5: Compliance Demonstration
- 73 6 NYCRR Subpart 242-4: Compliance Demonstration
- 74 6 NYCRR 242-8.5: Compliance Demonstration
- 76 6 NYCRR 246.5 (b): Compliance Demonstration
- 75 6 NYCRR 246.6 (b): Compliance Demonstration
- 77 6 NYCRR 246.7 (b) (1): Requirements for Installation, Certification and Data Accounting
- 78 6 NYCRR 246.8 (c) (1): Certification Procedures for CEMs
- 79 6 NYCRR 246.8 (c) (2): Recertification for CEMs

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- 80 6 NYCRR 246.8 (c) (3): Compliance Demonstration
- 81 6 NYCRR 246.9 (a): Missing Data Procedures and Out of Control
Periods for CEMs
- 82 6 NYCRR 246.11 (a): Compliance Demonstration
- 83 6 NYCRR 246.11 (b): Compliance Demonstration
- 84 6 NYCRR 246.11 (c): Compliance Demonstration
- 85 6 NYCRR 246.11 (d): Compliance Demonstration
- 86 6 NYCRR 246.11 (e): Compliance Demonstration



FEDERALLY ENFORCEABLE CONDITIONS
****** Facility Level ******

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS
The items listed below are not subject to the annual compliance certification requirements under Title V. Permittees may also have other obligations under regulations of general applicability.

Item A: Emergency Defense - 6 NYCRR 201-1.5

An emergency constitutes an affirmative defense to an action brought for noncompliance with emissions limitations or permit conditions for all facilities in New York State.

(a) The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

- (1) An emergency occurred and that the facility owner and/or operator can identify the cause(s) of the emergency;
- (2) The equipment at the permitted facility causing the emergency was at the time being properly operated;
- (3) During the period of the emergency the facility owner and/or operator took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
- (4) The facility owner and/or operator notified the Department within two working days after the event occurred. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(b) In any enforcement proceeding, the facility owner and/or operator seeking to establish the occurrence of an emergency has the burden of proof.

(c) This provision is in addition to any emergency or upset provision contained in any applicable requirement.

Item B: Public Access to Recordkeeping for Title V Facilities - 6 NYCRR 201-1.10 (b)

The Department will make available to the public any permit application, compliance plan, permit, and monitoring and compliance certification report pursuant to Section 503(e) of the Act, except for information entitled to confidential treatment pursuant to 6 NYCRR Part 616 - Public Access to records and Section 114(c) of the Act.



Item C: Timely Application for the Renewal of Title V Permits - 6 NYCRR 201-6.3 (a) (4)

Owners and/or operators of facilities having an issued Title V permit shall submit a complete application at least 180 days, but not more than eighteen months, prior to the date of permit expiration for permit renewal purposes.

Item D: Certification by a Responsible Official - 6 NYCRR 201-6.3 (d) (12)

Any application, form, report or compliance certification required to be submitted pursuant to the federally enforceable portions of this permit shall contain a certification of truth, accuracy and completeness by a responsible official. This certification shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Item E: Requirement to Comply With All Conditions - 6 NYCRR 201-6.5 (a) (2)

The permittee must comply with all conditions of the Title V facility permit. Any permit non-compliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

Item F: Permit Revocation, Modification, Reopening, Reissuance or Termination, and Associated Information Submission Requirements - 6 NYCRR 201-6.5 (a) (3)

This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Item G: Cessation or Reduction of Permitted Activity Not a Defense - 6 NYCRR 201-6.5 (a) (5)

It shall not be a defense for a permittee in an enforcement action to claim that a cessation or reduction in the permitted activity would have been necessary in order to maintain compliance with the conditions of this permit.

Item H: Property Rights - 6 NYCRR 201-6.5 (a) (6)

This permit does not convey any property rights of any sort or any exclusive privilege.



Item I: Severability - 6 NYCRR 201-6.5 (a) (9)

If any provisions, parts or conditions of this permit are found to be invalid or are the subject of a challenge, the remainder of this permit shall continue to be valid.

Item J: Permit Shield - 6 NYCRR 201-6.5 (g)

All permittees granted a Title V facility permit shall be covered under the protection of a permit shield, except as provided under 6 NYCRR Subpart 201-6. Compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that such applicable requirements are included and are specifically identified in the permit, or the Department, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the major stationary source, and the permit includes the determination or a concise summary thereof. Nothing herein shall preclude the Department from revising or revoking the permit pursuant to 6 NYCRR Part 621 or from exercising its summary abatement authority. Nothing in this permit shall alter or affect the following:

- i. The ability of the Department to seek to bring suit on behalf of the State of New York, or the Administrator to seek to bring suit on behalf of the United States, to immediately restrain any person causing or contributing to pollution presenting an imminent and substantial endangerment to public health, welfare or the environment to stop the emission of air pollutants causing or contributing to such pollution;
- ii. The liability of a permittee of the Title V facility for any violation of applicable requirements prior to or at the time of permit issuance;
- iii. The applicable requirements of Title IV of the Act;
- iv. The ability of the Department or the Administrator to obtain information from the permittee concerning the ability to enter, inspect and monitor the facility.

Item K: Reopening for Cause - 6 NYCRR 201-6.5 (i)

This Title V permit shall be reopened and revised under any of the following circumstances:

- i. If additional applicable requirements under the Act become applicable where this permit's remaining term is



three or more years, a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire, unless the original permit or any of its terms and conditions has been extended by the Department pursuant to the provisions of Part 201-6.7 and Part 621.

ii. The Department or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

iii. The Department or the Administrator determines that the Title V permit must be revised or reopened to assure compliance with applicable requirements.

iv. If the permitted facility is an "affected source" subject to the requirements of Title IV of the Act, and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

Proceedings to reopen and issue Title V facility permits shall follow the same procedures as apply to initial permit issuance but shall affect only those parts of the permit for which cause to reopen exists.

Reopenings shall not be initiated before a notice of such intent is provided to the facility by the Department at least thirty days in advance of the date that the permit is to be reopened, except that the Department may provide a shorter time period in the case of an emergency.

Item L: Permit Exclusion - ECL 19-0305

The issuance of this permit by the Department and the receipt thereof by the Applicant does not and shall not be construed as barring, diminishing, adjudicating or in any way affecting any legal, administrative or equitable rights or claims, actions, suits, causes of action or demands whatsoever that the Department may have against the Applicant for violations based on facts and circumstances alleged to have occurred or existed prior to the effective date of this permit, including, but not limited to, any enforcement action authorized pursuant to the provisions of applicable federal law, the Environmental Conservation Law of the State of New York (ECL) and Chapter III of the Official Compilation of the Codes, Rules and Regulations of the State of New York



(NYCRR). The issuance of this permit also shall not in any way affect pending or future enforcement actions under the Clean Air Act brought by the United States or any person.

Item M: Federally Enforceable Requirements - 40 CFR 70.6 (b)
All terms and conditions in this permit required by the Act or any applicable requirement, including any provisions designed to limit a facility's potential to emit, are enforceable by the Administrator and citizens under the Act. The Department has, in this permit, specifically designated any terms and conditions that are not required under the Act or under any of its applicable requirements as being enforceable under only state regulations.

**MANDATORY FEDERALLY ENFORCEABLE PERMIT CONDITIONS
SUBJECT TO ANNUAL CERTIFICATIONS AT ALL TIMES**

The following federally enforceable permit conditions are mandatory for all Title V permits and are subject to annual compliance certification requirements at all times.

Condition 1: Acceptable Ambient Air Quality
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement:6 NYCRR 200.6

Item 1.1:

Notwithstanding the provisions of 6 NYCRR Chapter III, Subchapter A, no person shall allow or permit any air contamination source to emit air contaminants in quantities which alone or in combination with emissions from other air contamination sources would contravene any applicable ambient air quality standard and/or cause air pollution. In such cases where contravention occurs or may occur, the Commissioner shall specify the degree and/or method of emission control required.

Condition 2: Fees
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement:6 NYCRR 201-6.5 (a) (7)

Item 2.1:

The owner and/or operator of a stationary source shall pay fees to the Department consistent with the fee schedule authorized by ECL 72-0303.

Condition 3: Recordkeeping and reporting of compliance monitoring
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement:6 NYCRR 201-6.5 (c)

Item 3.1:



The following information must be included in any required compliance monitoring records and reports:

- (i) The date, place, and time of sampling or measurements;
- (ii) The date(s) analyses were performed;
- (iii) The company or entity that performed the analyses;
- (iv) The analytical techniques or methods used including quality assurance and quality control procedures if required;
- (v) The results of such analyses including quality assurance data where required; and
- (vi) The operating conditions as existing at the time of sampling or measurement.

Any deviation from permit requirements must be clearly identified in all records and reports. Reports must be certified by a responsible official, consistent with Section 201-6.3 of this Part 201.

Condition 4: Monitoring, Related Recordkeeping, and Reporting Requirements.

Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement: 6 NYCRR 201-6.5 (c) (2)

Item 4.1:

Compliance monitoring and recordkeeping shall be conducted according to the terms and conditions contained in this permit and shall follow all quality assurance requirements found in applicable regulations. Records of all monitoring data and support information must be retained for a period of at least 5 years from the date of the monitoring, sampling, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

Condition 5: Compliance Certification

Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement: 6 NYCRR 201-6.5 (c) (3) (ii)

Item 5.1:

The Compliance Certification activity will be performed for the Facility.

Item 5.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

To meet the requirements of this facility permit with respect to reporting, the permittee must:

Submit reports of any required monitoring at a minimum



frequency of every 6 months, based on a calendar year reporting schedule. These reports shall be submitted to the Department within 30 days after the end of a reporting period. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by the responsible official for this facility.

Notify the Department and report permit deviations and incidences of noncompliance stating the probable cause of such deviations, and any corrective actions or preventive measures taken. Where the underlying applicable requirement contains a definition of prompt or otherwise specifies a time frame for reporting deviations, that definition or time frame shall govern. Where the underlying applicable requirement fails to address the time frame for reporting deviations, reports of deviations shall be submitted to the permitting authority based on the following schedule:

(1) For emissions of a hazardous air pollutant or a toxic air pollutant (as identified in an applicable regulation) that continue for more than an hour in excess of permit requirements, the report must be made within 24 hours of the occurrence.

(2) For emissions of any regulated air pollutant, excluding those listed in paragraph (1) of this section, that continue for more than two hours in excess of permit requirements, the report must be made within 48 hours.

(3) For all other deviations from permit requirements, the report shall be contained in the 6 month monitoring report required above.

(4) This permit may contain a more stringent reporting requirement than required by paragraphs (1), (2) or (3) above. If more stringent reporting requirements have been placed in this permit or exist in applicable requirements that apply to this facility, the more stringent reporting requirement shall apply.

If any of the above conditions are met, the source must notify the permitting authority by telephone or facsimile based on the timetable listed in paragraphs (1) through (4) of this section. A written notice, certified by a responsible official consistent with 6 NYCRR Part 201-6.3(d)(12), must be submitted within 10 working days of the occurrence. All deviations reported under paragraph (1) through (4) of this section must also be identified in the 6 month monitoring report required



above.

If the permittee seeks to have a violation excused as provided in 201-1.4, the permittee shall report such violations as required under 201-1.4(b). However, in no case may reports of any deviation be on a less frequent basis than those described in paragraphs (1) through (4) above. In order to have a violation of a federal regulation (such as a new source performance standard or national emissions standard for hazardous air pollutants) excused, the specific federal regulation must provide for an affirmative defense during start-up, shutdowns, malfunctions or upsets.

In the case of any condition contained in this permit with a reporting requirement of "Upon request by regulatory agency" the permittee shall include in the semiannual report, a statement for each such condition that the monitoring or recordkeeping was performed as required or requested and a listing of all instances of deviations from these requirements.

In the case of any emission testing performed during the previous six month reporting period, either due to a request by the Department, EPA, or a regulatory requirement, the permittee shall include in the semiannual report a summary of the testing results and shall indicate whether or not the Department or EPA has approved the results.

All semiannual reports shall be submitted to the Administrator (or his or her representative) as well as two copies to the Department (one copy to the regional air pollution control engineer (RAPCE) in the regional office and one copy to the Bureau of Compliance Monitoring and Enforcement (BCME) in the DEC central office). Mailing addresses for the above referenced persons are contained in the monitoring condition for 6 NYCRR Part 201-6.5(e), contained elsewhere in this permit.

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 7/30/2011.
Subsequent reports are due every 6 calendar month(s).

Condition 6: Compliance Certification
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement: 6 NYCRR 201-6.5 (e)

Item 6.1:

The Compliance Certification activity will be performed for the Facility.



Item 6.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Requirements for compliance certifications with terms and conditions contained in this facility permit include the following:

- i. Compliance certifications shall contain:
 - the identification of each term or condition of the permit that is the basis of the certification;
 - the compliance status;
 - whether compliance was continuous or intermittent;
 - the method(s) used for determining the compliance status of the facility, currently and over the reporting period consistent with the monitoring and related recordkeeping and reporting requirements of this permit;
 - such other facts as the Department may require to determine the compliance status of the facility as specified in any special permit terms or conditions; and
 - such additional requirements as may be specified elsewhere in this permit related to compliance certification.
- ii. The responsible official must include in the annual certification report all terms and conditions contained in this permit which are identified as being subject to certification, including emission limitations, standards, or work practices. That is, the provisions labeled herein as "Compliance Certification" are not the only provisions of this permit for which an annual certification is required.
- iii. Compliance certifications shall be submitted annually. Certification reports are due 30 days after the anniversary date of four consecutive calendar quarters. The first report is due 30 days after the calendar quarter that occurs just prior to the permit anniversary date, unless another quarter has been acceptable by the Department.
- iv. All compliance certifications shall be submitted to the Administrator (or his or her representative) as well as two copies to the Department (one copy to the regional air pollution control engineer (RAPCE) in the regional office and one copy to the Bureau of Compliance Monitoring and Enforcement (BCME) in the DEC central office). Please send annual compliance certifications to Chief of the Stationary Source Compliance Section, the Region 2 EPA



Item 8.1:

(a) The following records shall be maintained for at least five years:

- (1) a copy of each emission statement submitted to the department; and
- (2) records indicating how the information submitted in the emission statement was determined, including any calculations, data, measurements, and estimates used.

(b) These records shall be made available at the facility to the representatives of the department upon request during normal business hours.

Condition 9: Open Fires - Prohibitions
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement: 6 NYCRR 215.2

Item 9.1:

Except as allowed by Title 6 NYCRR Section 215.3, no person shall burn, cause, suffer, allow or permit the burning of any materials in an open fire.

Item 9.2

Per Section 215.3, burning in an open fire, provided it is not contrary to other law or regulation, will be allowed as follows:

- (a) On-site burning in any town with a total population less than 20,000 of downed limbs and branches (including branches with attached leaves or needles) less than six inches in diameter and eight feet in length between May 15th and the following March 15th. For the purposes of this subdivision, the total population of a town shall include the population of any village or portion thereof located within the town. However, this subdivision shall not be construed to allow burning within any village.
- (b) Barbecue grills, maple sugar arches and similar outdoor cooking devices when actually used for cooking or processing food.
- (c) Small fires used for cooking and camp fires provided that only charcoal or untreated wood is used as fuel and the fire is not left unattended until extinguished.
- (d) On-site burning of agricultural wastes as part of a valid agricultural operation on contiguous agricultural lands larger than five acres actively devoted to agricultural or horticultural use, provided such waste is actually grown or generated on those lands and such waste is capable of being fully burned within a 24-hour period.
- (e) The use of liquid petroleum fueled smudge pots to prevent frost damage to crops.
- (f) Ceremonial or celebratory bonfires where not otherwise prohibited by law, provided that only untreated wood or other agricultural products are used as fuel and the fire is not left unattended until extinguished.
- (g) Small fires that are used to dispose of a flag or religious item, and small fires or other smoke producing process where not otherwise prohibited by law that are used in connection with a religious ceremony.
- (h) Burning on an emergency basis of explosive or other dangerous or contraband materials by police or other public safety organization.
- (i) Prescribed burns performed according to Part 194 of this Title.
- (j) Fire training, including firefighting, fire rescue, and fire/arson investigation training, performed under applicable rules and guidelines of the New York State Department of State's Office of Fire Prevention and Control. For fire training performed on acquired structures, the structures must be emptied and stripped of any material that is toxic, hazardous or likely to emit



toxic smoke (such as asbestos, asphalt shingles and vinyl siding or other vinyl products) prior to burning and must be at least 300 feet from other occupied structures. No more than one structure per lot or within a 300 foot radius (whichever is bigger) may be burned in a training exercise.

(k) Individual open fires as approved by the Director of the Division of Air Resources as may be required in response to an outbreak of a plant or animal disease upon request by the commissioner of the Department of Agriculture and Markets, or for the destruction of invasive plant and insect species.

(l) Individual open fires that are otherwise authorized under the environmental conservation law, or by rule or regulation of the Department.

**MANDATORY FEDERALLY ENFORCEABLE PERMIT CONDITIONS
SUBJECT TO ANNUAL CERTIFICATIONS ONLY IF APPLICABLE**

The following federally enforceable permit conditions are mandatory for all Title V permits and are subject to annual compliance certification requirements only if effectuated during the reporting period.

[NOTE: The corresponding annual compliance certification for those conditions not effectuated during the reporting period shall be specified as "not applicable".]

Condition 10: Maintenance of Equipment
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement:6 NYCRR 200.7

Item 10.1:

Any person who owns or operates an air contamination source which is equipped with an emission control device shall operate such device and keep it in a satisfactory state of maintenance and repair in accordance with ordinary and necessary practices, standards and procedures, inclusive of manufacturer's specifications, required to operate such device effectively.

Condition 11: Recycling and Salvage
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement:6 NYCRR 201-1.7

Item 11.1:

Where practical, any person who owns or operates an air contamination source shall recycle or salvage air contaminants collected in an air cleaning device according to the requirements of the ECL.

Condition 12: Prohibition of Reintroduction of Collected Contaminants to the air
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement:6 NYCRR 201-1.8

Item 12.1:

No person shall unnecessarily remove, handle or cause to be handled, collected air contaminants



from an air cleaning device for recycling, salvage or disposal in a manner that would reintroduce them to the outdoor atmosphere.

Condition 13: Exempt Sources - Proof of Eligibility
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement:6 NYCRR 201-3.2 (a)

Item 13.1:

The owner and/or operator of an emission source or unit that is eligible to be exempt may be required to certify that it operates within the specific criteria described in this Subpart. The owner or operator of any such emission source must maintain all required records on-site for a period of five years and make them available to representatives of the department upon request. Department representatives must be granted access to any facility which contains emission sources or units subject to this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other State and Federal air pollution control requirements, regulations, or law.

Condition 14: Trivial Sources - Proof of Eligibility
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement:6 NYCRR 201-3.3 (a)

Item 14.1:

The owner and/or operator of an emission source or unit that is listed as being trivial in this Part may be required to certify that it operates within the specific criteria described in this Subpart. The owner or operator of any such emission source must maintain all required records on-site for a period of five years and make them available to representatives of the department upon request. Department representatives must be granted access to any facility which contains emission sources or units subject to this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other State and Federal air pollution control requirements, regulations, or law.

Condition 15: Standard Requirement - Provide Information
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement:6 NYCRR 201-6.5 (a) (4)

Item 15.1:

The owner and/or operator shall furnish to the department, within a reasonable time, any information that the department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the department copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to the administrator along with a claim of confidentiality, if the administrator initiated the request for information or otherwise has need of it.

Condition 16: General Condition - Right to Inspect
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement:6 NYCRR 201-6.5 (a) (8)



Item 16.1:

The department or an authorized representative shall be allowed upon presentation of credentials and other documents as may be required by law to:

(i) enter upon the permittee's premises where a facility subject to the permitting requirements of this Subpart is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;

(ii) have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;

(iii) inspect at reasonable times any emission sources, equipment (including monitoring and air pollution control equipment), practices, and operations regulated or required under the permit; and

(iv) sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

**Condition 17: Standard Requirements - Progress Reports
Effective between the dates of 04/26/2011 and 04/25/2016**

Applicable Federal Requirement:6 NYCRR 201-6.5 (d) (5)

Item 17.1:

Progress reports consistent with an applicable schedule of compliance are to be submitted at least semiannually, or at a more frequent period if specified in the applicable requirement or by the department. Such progress reports shall contain the following:

(i) dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and

(ii) an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

**Condition 18: Off Permit Changes
Effective between the dates of 04/26/2011 and 04/25/2016**

Applicable Federal Requirement:6 NYCRR 201-6.5 (f) (6)

Item 18.1:

No permit revision will be required for operating changes that contravene an express permit term, provided that such changes would not violate applicable requirements as defined under this Part or contravene federally enforceable monitoring (including test methods), recordkeeping, reporting, or compliance certification permit terms and conditions. Such changes may be made without requiring a permit revision, if the changes are not modifications under any provision of title I of the act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions) provided that the facility provides the administrator and the department with written notification as required below in advance of the proposed changes within a minimum of seven days. The facility owner or operator, and the department shall attach each such notice to their copy of the relevant permit.

(i) For each such change, the written notification required above shall include a brief description

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C/O CSC
8400 Corporate Dr
Carrollton, Md. 20785

Condition 22: Recycling and Emissions Reduction
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement: 40CFR 82, Subpart F

Item 22.1:
The permittee shall comply with all applicable provisions of 40 CFR Part 82.

The following conditions are subject to annual compliance certification requirements for Title V permits only.

Condition 23: Compliance Certification
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement: 6 NYCRR 201-3.2 (c)

Item 23.1:
The Compliance Certification activity will be performed for the facility:
The Compliance Certification applies to:

Emission Unit: S-00004 Emission Point: 00004

Emission Unit: S-00005 Emission Point: 00005

Item 23.2:
Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

1) Operation of the power block and flue gas desulfurization system diesel generators are each limited to less than 500 hours per 12-month period, rolled monthly.

2) The owner or operator must maintain the monthly hours of operation and the 12-month rolling total hours of operation of on site for five years.

3) Annually, a report must be submitted to the regional office which includes the 12-month rolling total hours of operation for each calendar month of the reporting year.

Work Practice Type: HOURS PER YEAR OPERATION



Upper Permit Limit: 500 hours
Monitoring Frequency: MONTHLY
Averaging Method: 12-month total, rolled monthly
Reporting Requirements: ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 1/30/2012.
Subsequent reports are due every 12 calendar month(s).

Condition 24: Emission Unit Definition
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement:6 NYCRR Subpart 201-6

Item 24.1:

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: S-00001

Emission Unit Description:

AES Somerset LLC is an electric generating station consisting of one generator unit.

AES Somerset Stack, Emission Point 00001

Boiler 1, Emission Source B0001

Boiler 1 Selective Catalytic Reduction System,
Emission Source SCR01

Boiler 1 Electrostatic Precipitator,
Emission Source ESP01

Boiler 1 Flue Gas Desulfurization System,
Emission Source

FGD01

burning coal and/or coal/petcoke blend, Process

P11

burning No. 2 fuel oil and kerosene, Process

P12

Steam for Unit 1 is supplied by Emission Source B0001.
Emission Source B0001 exhausts through Emission Point 00001.

Emission Source B0001 is a Babcock and Wilcox steam generator, rated at 4,845,000 lbs/hr of steam and a calculated heat input from fuel of 6280 MMBtu/hr. AES Somerset LLC notes that the heat input from fuel is based upon traditional boiler design calculations. For monitoring and reporting purposes, the heat input for Emission Source B0001 is derived from Continuous Emission Monitors (CEM), measuring carbon dioxide (CO2) and flue gas flow, in accordance with 40 CFR Part75 Regulations. The relative accuracy of these measurements, as well as EPA recognized flow biases related to Reference Method 2 and wall effect, can result in reported CEM heat inputs that are greater than the design calculated value.



The calculations pertaining to "Emission Rate Potential", "Potential to Emit", and "Minimum Required Control Efficiency", are based on the MCR of 6280 MMBtu/hr.

The boiler burns coal and petcoke as its primary fuel. No. 2 fuel oil and kerosene are used for startup and flame stabilization.

Emission Source B0001 is equipped with an electrostatic precipitator to control particulate matter emissions. The precipitator is equipped with an energy management system that, based on feedback from the opacity monitor, will adjust the power levels in the precipitator to maintain the desired opacity. Sulfur dioxide emissions are controlled by a trona duct injection system and a wet limestone flue gas desulfurization (FGD) system. Nitrogen oxides emissions are controlled through the use of low-NO_x burners installed on the boiler, good combustion practices, and an anhydrous ammonia-based selective catalytic reduction (SCR) system.

Building(s): BOILER
FGD

Item 24.2:

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: S-00002

Emission Unit Description:

AES Somerset Auxiliary Boilers

AES Somerset Auxiliary Boiler Stack, Emission Point

0001A

Auxiliary Boiler A, Emission Source B000A

burning No. 2 fuel oil and kerosene, Process

PA2

Auxiliary Boiler B, Emission Source B000B

burning No. 2 fuel oil and kerosene, Process PB2

Both Emission Sources B000A and B000B are required to supply steam for a cold start of the main unit. One emission source, at partial output, is used for house heat and for maintaining essential equipment in a hot condition when the main boiler (Emission Source B0001) is not operating. Emission Sources B000A and B000B exhaust through Emission Point 0001A.

Emission Sources B000A and B000B are small package boilers rated at 195 MMBtu/hr maximum heat input each. The emission sources burn No. 2 fuel oil mixed with kerosene as their fuel.

Building(s): BOILER

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Item 24.3:

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: S-00003

Emission Unit Description:

AES Somerset Coal, Petcoke and Flyash Handling System

Coal and petcoke are delivered to AES Somerset by train. They are unloaded by a rotary car dumper in the coal unloading building.

Flyash is collected in hoppers in the electrostatic precipitator building. It is then transported pneumatically through carbon steel piping to the sludge stabilization building where it is collected and stored in silos until used in the stabilization process, disposed of in the on-site landfill, or sold off-site as beneficial use determinations (BUD) products. The storage silos are equipped with baghouses.

Item 24.4:

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: S-00004

Emission Unit Description:

AES Somerset Power Block Diesel Generator, Emission Point 00004
Power Block Diesel Generator, Emission Source G0001

Burning No. 2 fuel oil and kerosene, Process PP1

AES Somerset has a 2.2 megawatt diesel generator located by the power block to ensure a safe shutdown in the event of a loss of power. This generator may also provide power for station service.

Building(s): BOILER

Item 24.5:

The facility is authorized to perform regulated processes under this permit for:

Emission Unit: S-00005

Emission Unit Description:

AES Somerset FGD Diesel Generator, Emission Point 00005

FGD Diesel Generator, Emission Source F0001
Burning diesel or No. 2 fuel oil and kerosene,
Process PF1

AES Somerset has a 1.6 megawatt diesel generator located by the FGD building to ensure a safe shutdown in the event of a loss of power. This generator may also provide power for station service.

Building(s): FGD



Condition 25: Compliance Certification
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement:6 NYCRR Subpart 201-6

Item 25.1:

The Compliance Certification activity will be performed for the Facility.

Item 25.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

1. The facility is permitted to burn coal blended with up to 30% by weight petroleum coke in Boiler 1, Emission Point 00001.
2. The facility shall monitor and record the percentage by weight of petroleum coke in the blended fuel from the coal blending operation once per shift while blending is being conducted. The blended fuel shall be representative of the as-fired fuel.
3. The records shall be available for review by department staff upon request.

Parameter Monitored: FUEL

Upper Permit Limit: 30 percent by weight

Monitoring Frequency: PER SHIFT

Averaging Method: MAXIMUM - NOT TO EXCEED STATED VALUE -
SEE MONITORING DESCRIPTION

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 26: Compliance Certification
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement:6 NYCRR 207.2 (a)

Item 26.1:

The Compliance Certification activity will be performed for the Facility.

Item 26.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

- Any person who owns a significant air contamination source shall submit a proposed episode action plan to the commissioner within 90 days of his request therefor. The plan shall contain detailed steps which will be taken by the air contamination source owner to reduce air contaminant emissions during each stage of an air pollution episode. The commissioner shall make available

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and furnish with his request therefor, guidelines for preparation of episode action plans.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 27: Compliance Certification
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement: 6 NYCRR 225-1.2 (a) (2)

Item 27.1:

The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 007446-09-5 SULFUR DIOXIDE

Item 27.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

- 1) No person shall sell, offer for sale, purchase or use any distillate oil fuel which contains greater than 2.00 percent sulfur by weight.
- 2) This limitation is less restrictive than the 1.50 percent sulfur by weight limit from 6NYCRR Part 225-1.2(d) that is not part of the State Implementation Plan (SIP) and is in the state side of this permit. The 2.00 percent sulfur by weight limit from 6NYCRR Part 225-1.2(c) is in the SIP.
- 3) The facility shall have available for Department review, upon request, the sulfur content of each batch of oil delivered to the site.
- 4) Quarterly, the facility shall report the cause of any exceedance of the sulfur in fuel limitation of this condition, and what corrective actions were taken to address the situation and prevent a reoccurrence. If there is no exceedance during the reporting period state so.

Work Practice Type: PARAMETER OF PROCESS MATERIAL
Process Material: DISTILLATES - NUMBER 1 AND NUMBER 2 OIL
Parameter Monitored: SULFUR CONTENT
Upper Permit Limit: 2.00 percent by weight
Reference Test Method: ASTM D 4294
Monitoring Frequency: PER DELIVERY
Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY

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Monitoring Frequency: PER DELIVERY
Averaging Method: 3-MONTH AVERAGE ROLLED MONTHLY
Reporting Requirements: QUARTERLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 7/30/2011.
Subsequent reports are due every 3 calendar month(s).

Condition 29: Compliance Certification
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement: 6 NYCRR 225-1.2 (f)

Item 29.1:

The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):
CAS No: 007446-09-5 SULFUR DIOXIDE

Item 29.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

This facility's Prevention of Significant Deterioration (PSD) permit required the installation of Best Available Control Technology (BACT) to minimize SO₂ emissions upon construction. BACT was a flue gas desulfurization system on the main boiler, EU S-00001.

The control technique for SO₂ specified in Environmental Conservation Law (ECL) Section 19-0909 (State Acid Deposition Control Act), namely, paragraph 2e ("the use of best available control technology at the time of construction, reconstruction or substantial addition to or alteration of a facility or stationary source") is allowable for this facility to comply with the limits in Table 2 of 6NYCRR Part 225-1. Table 2 limits the quantity of sulfur in fuel oils and solid fuels, such as coal. These limits are not in the State Implementation Plan (SIP). No additional reporting is required by this permit condition.

The auxiliary boilers and diesel generators are not part of the above exclusion so they must meet the sulfur in fuel requirements of Part 225-1.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

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Condition 30: Compliance Certification
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement:6 NYCRR 227-2.3

Item 30.1:

The Compliance Certification activity will be performed for the facility:
The Compliance Certification applies to:

Emission Unit: S-00001

Emission Point: 00001

Emission Unit: S-00002

Emission Point: 0001A

Regulated Contaminant(s):

CAS No: 0NY210-00-0 OXIDES OF NITROGEN

Item 30.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

NOx Reasonably Available Control Technology (RACT)
emission limits on and after July 1, 2014:

By January 1, 2012, the facility must submit to the department either a complete application for a permit to include the presumptive NOx limits or a RACT analysis that explains why the control technology the facility currently employs should still be considered RACT for that source(s). Any permit application must include any new requirements (for example, emission limits, monitoring, and record keeping requirements) and a RACT analysis that explains how the facility intends to comply with the provisions of this Subpart. Facilities that submit a complete application but are unable to meet their specific RACT compliance date may request an extension (up to but not exceeding one year) of their RACT compliance date from the department. This request must set forth the reason(s) why the source will be unable to meet their RACT compliance date and suggest an alternative RACT compliance date. This request is subject to department review and approval and must be submitted to the administrator for approval as a separate State Implementation Plan (SIP) revision.

Since the facility has until January 1, 2012 to commit to a compliance method, this permit contains no NOx limits for the main boiler or auxiliary boilers for July 1, 2014 and later.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

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Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 31: Excess emission requirements
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement:6 NYCRR 243-1.6 (d)

Item 31.1:

This Condition applies to:

Emission Unit: S00001 Emission Point: 00001

Item 31.2:

If a CAIR NOx Ozone Season source emits nitrogen oxides during any control period in excess of the CAIR NOx Ozone Season emissions limitation, then:

(1) the owners and operators of the source and each CAIR NOx Ozone Season unit at the source shall surrender the CAIR NOx Ozone Season allowances required for deduction under section 243-6.5(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Act or applicable State law; and

(2) each ton of such excess emissions and each day of such control period shall constitute a separate violation of this Subpart, the Act, and applicable State law.

Condition 32: Recordkeeping and reporting requirements
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement:6 NYCRR 243-1.6 (e)

Item 32.1:

This Condition applies to:

Emission Unit: S00001 Emission Point: 00001

Item 32.2:

Unless otherwise provided, the owners and operators of the CAIR NOx Ozone Season source and each CAIR NOx Ozone Season unit at the source shall keep on site at the source each of the following documents for a period of five years from the date the document is created. This period may be extended for cause, at any time before the end of five years, in writing by the department or the Administrator.

(i) The certificate of representation under section 243-2.4 for the CAIR designated representative for the source and each CAIR NOx 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 five-year period until such documents are superseded because of the submission of a new certificate of representation under section 243-2.4 changing the CAIR designated representative.

(ii) All emissions monitoring information, in accordance with Subpart 243-8, provided that to the extent that Subpart 243-8 provides for a three-year period for recordkeeping, the three-year



period shall apply.

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NOx Ozone Season Trading Program.

(iv) Copies of all documents used to complete a CAIR permit application and any other submission under the CAIR NOx Ozone Season Trading Program or to demonstrate compliance with the requirements of the CAIR NOx Ozone Season Trading Program.

Condition 33: Authorization and responsibilities of CAIR designated representative
Effective between the dates of 04/26/2011 and 04/25/2016
Applicable Federal Requirement:6 NYCRR 243-2.1

Item 33.1:

This Condition applies to:

Emission Unit: S00001 Emission Point: 00001

Item 33.2:

Except as provided under section 243-2.2, each CAIR NOx Ozone Season source, including all CAIR NOx Ozone Season units at the source, shall have one and only one CAIR designated representative, with regard to all matters under the CAIR NOx Ozone Season Trading Program concerning the source or any CAIR NOx Ozone Season unit at the source.

The CAIR designated representative of the CAIR NOx Ozone Season source shall be selected by an agreement binding on the owners and operators of the source and all CAIR NOx Ozone Season units at the source and shall act in accordance with the certification statement in section 243-2.4(a)(4)(iv).

Upon receipt by the Administrator of a complete certificate of representation under section 243-2.4, the CAIR designated representative of the source shall represent and, by his or her representations, actions, inactions, or submissions, legally bind each owner and operator of the CAIR NOx Ozone Season source represented and each CAIR NOx Ozone Season unit at the source in all matters pertaining to the CAIR NOx Ozone Season Trading Program, notwithstanding any agreement between the CAIR designated representative and such owners and operators. The owners and operators shall be bound by any decision or order issued to the CAIR designated representative by the department, the Administrator, or a court regarding the source or unit.

No CAIR permit will be issued, no emissions data reports will be accepted, and no CAIR NOx Ozone Season Allowance Tracking System account will be established for a CAIR NOx Ozone Season unit at a source, until the Administrator has received a complete certificate of representation under section 243-2.4 for a CAIR designated representative of the source and the CAIR NOx Ozone Season units at the source.

Each submission under the CAIR NOx Ozone Season Trading Program shall be submitted, signed, and certified by the CAIR designated representative for each CAIR NOx Ozone Season source on behalf of which the submission is made. Each such submission shall include the following certification statement by the CAIR designated representative: "I am authorized to

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

Condition 34: General requirements
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement:6 NYCRR 243-8.1

Item 34.1:

This Condition applies to:

Emission Unit: S00001 Emission Point: 00001

Item 34.2:

The owners and operators, and to the extent applicable, the CAIR designated representative, of a CAIR NOx Ozone Season unit, shall comply with the monitoring, recordkeeping, and reporting requirements as provided in this Subpart and in Subpart H of 40 CFR Part 75. For purposes of complying with such requirements, the definitions in section 243-1.2 and in 40 CFR 72.2 shall apply, and the terms "affected unit," "designated representative," and "continuous emission monitoring system" (or "CEMS") in 40 CFR Part 75 shall be deemed to refer to the terms "CAIR NOx Ozone Season unit," "CAIR designated representative," and "continuous emission monitoring system" (or "CEMS") respectively, as defined in section 243-1.2. The owner or operator of a unit that is not a CAIR NOx Ozone Season unit but that is monitored under 40 CFR 75.72(b)(2)(ii) shall comply with the same monitoring, recordkeeping, and reporting requirements as a CAIR NOx Ozone Season unit.

'Requirements for installation, certification, and data accounting.' The owner or operator of each CAIR NOx Ozone Season unit shall:

- (1) install all monitoring systems required under this Subpart for monitoring NOx mass emissions and individual unit heat input (including all systems required to monitor NOx emission rate, NOx concentration, stack gas moisture content, stack gas flow rate, CO2 or O2 concentration, and fuel flow rate, as applicable, in accordance with 40 CFR 75.71 and 40 CFR 75.72);
- (2) successfully complete all certification tests required under section 243-8.2 and meet all other requirements of this Subpart and 40 CFR Part 75 applicable to the monitoring systems under paragraph (a)(1) of this section; and
- (3) record, report, and quality-assure the data from the monitoring systems under paragraph (a)(1) of this section.

Condition 35: Out of control periods
Effective between the dates of 04/26/2011 and 04/25/2016



Applicable Federal Requirement:6 NYCRR 243-8.3

Item 35.1:

This Condition applies to:

Emission Unit: S00001 Emission Point: 00001

Item 35.2:

Whenever 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 missing data procedures in Subpart D or Subpart H of, or appendix D or appendix E to, 40 CFR Part 75.

Condition 36: Quarterly reports
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement:6 NYCRR 243-8.5 (d)

Item 36.1:

This Condition applies to:

Emission Unit: S00001 Emission Point: 00001

Item 36.2:

The CAIR designated representative shall submit quarterly reports, as follows:

If the CAIR NO_x Ozone Season unit is subject to an Acid Rain emissions limitation or a CAIR NO_x emissions limitation or if the owner or operator of such unit chooses to report on an annual basis under this Subpart, the CAIR designated representative shall meet the requirements of Subpart H of 40 CFR Part 75 (concerning monitoring of NO_x mass emissions) for such unit for the entire year and shall report the NO_x mass emissions data and heat input data for such unit, in an electronic quarterly report in a format prescribed by the Administrator, for each calendar quarter beginning with:

(i) for a unit that commences commercial operation before July 1, 2007, the calendar quarter covering May 1, 2008 through June 30, 2008;

(ii) for a unit that commences commercial operation on or after July 1, 2007, the calendar quarter corresponding to the earlier of the date of provisional certification or the applicable deadline for initial certification under section 243-8.1(b), unless that quarter is the third or fourth quarter of 2007 or the first quarter of 2008, in which case reporting shall commence in the quarter covering May 1, 2008 through June 30, 2008.

The CAIR designated representative shall submit each quarterly report to the Administrator within 30 days following the end of the calendar quarter covered by the report. Quarterly reports shall be submitted in the manner specified in 40 CFR 75.73(f).

For CAIR NO_x Ozone Season units that are also subject to an Acid Rain emissions limitation or the CAIR NO_x Annual Trading Program, CAIR SO₂ Trading Program, or the Mercury Reduction Program for Coal-Fired Electric Utility Steam Generating Units (6 NYCRR Part 246),

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quarterly reports shall include the applicable data and information required by Subparts F through I of 40 CFR Part 75 as applicable, in addition to the NO_x mass emission data, heat input data, and other information required by this Subpart.

Condition 37: Compliance certification
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement:6 NYCRR 243-8.5 (e)

Item 37.1:

This Condition applies to:

Emission Unit: S00001 Emission Point: 00001

Item 37.2:

The CAIR designated representative shall submit to the Administrator a compliance certification (in a format prescribed by the Administrator) in support of each quarterly report based on reasonable inquiry of those persons with primary responsibility for ensuring that all of the unit's emissions are correctly and fully monitored. The certification shall state that:

- (1) the monitoring data submitted were recorded in accordance with the applicable requirements of this Subpart and 40 CFR Part 75, including the quality assurance procedures and specifications;
- (2) for a unit with add-on NO_x emission controls and for all hours where NO_x data are substituted in accordance with 40 CFR 75.34(a)(1), the add-on emission controls were operating within the range of parameters listed in the quality assurance/quality control program under appendix B to 40 CFR Part 75 and the substitute data values do not systematically underestimate NO_x emissions; and
- (3) for a unit that is reporting on a control period basis under subparagraph (d)(2)(ii) of this section, the NO_x emission rate and NO_x concentration values substituted for missing data under Subpart D of 40 CFR Part 75 are calculated using only values from a control period and do not systematically underestimate NO_x emissions.

Condition 38: CAIR NO_x Annual Trading Program General Conditions
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement:6 NYCRR Subpart 244-1

Item 38.1:

This Condition applies to:

Emission Unit: S00001 Emission Point: 00001

Item 38.2:

1) As of midnight of March 1, or midnight of the first business day thereafter if March 1 is not a business day, the owners and operators shall hold, in their compliance account, Clean Air Interstate Rule (CAIR) NO_x allowances available for compliance deductions for the previous control period (January 1 through December 31), in an amount not less than the total tons of

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nitrogen oxides emissions from all CAIR NOx units at the source during that control period. A CAIR NOx allowance shall not be deducted for a control period in a calendar year before the year for which the CAIR NOx allowance was allocated. [244-1.6(c)(1), 244-1.2(b)(5), 244-1.2(b)(36), 244-1.6(c)(3)]

2) The owners and operators shall hold in their compliance account, CAIR NOx allowances available for compliance deductions for the control period starting on the later of January 1, 2009 or the deadline for meeting the unit's monitor certification requirements under section 244-8.1(b)(1), (2), or (5) and for each control period thereafter. [244-1.6(c)(2)]

3) If a CAIR NOx source emits nitrogen oxides during any control period in excess of the CAIR NOx emissions limitation, the owners and operators of the CAIR NOx source shall surrender the CAIR NOx allowances required for deduction under 6NYCRR Part 244-6.5(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Act or applicable State law. Each ton of such excess emissions and each day of such control period shall constitute a separate violation of this permit, the Act, and applicable State law. [(244-1.6(d)]

4) Unless otherwise provided, the owners and operators of the CAIR NOx source shall keep on site each of the following documents for a period of five years from the date the document is created. This period may be extended for cause, at any time before the end of five years, in writing by the department or the Administrator: [244-1.6(e)]

(i) The certificate of representation under 6NYCRR Part 244-2.4 for the CAIR designated representative for 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 five year period until such documents are superseded because of the submission of a new certificate of representation under 6NYCRR Part 244-2.4 changing the CAIR designated representative.

(ii) All emissions monitoring information, in accordance with 6NYCRR Part 244-8, provided that to the extent that 6NYCRR Part 244-8 provides for a three year period for recordkeeping, the three year period shall apply.

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NOx Annual Trading Program.

(iv) Copies of all documents used to complete a CAIR permit application and any other submission under the CAIR NOx Annual Trading Program or to demonstrate compliance with the requirements of the CAIR NOx Annual Trading Program.

Condition 39: Designated CAIR Representative
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement:6 NYCRR Subpart 244-2

Item 39.1:

This Condition applies to:

Emission Unit: S00001 Emission Point: 00001

Item 39.2:

1) Each Clean Air Interstate Rule (CAIR) NOx source shall have one CAIR designated representative and may have one alternate representative, as per 6NYCRR Part 244-2.2, with regard to all matters under the CAIR NOx Annual Trading Program. The CAIR designated



representative shall be selected by an agreement binding on the owners and operators of the source and act in accordance with the certification statement in 6NYCRR Part 244-2.4(a)(4)(iv). Upon receipt by the Administrator of a complete certificate of representation under 6NYCRR Part 244-2.4, the CAIR designated representative of the source shall represent and, by his or her representations, actions, inactions, or submissions, legally bind each owner and operator of the CAIR NOx source represented in all matters pertaining to the CAIR NOx Annual Trading Program, notwithstanding any agreement between the CAIR designated representative and such owners and operators. The owners and operators shall be bound by any decision or order issued to the CAIR designated representative by the department, the Administrator, or a court regarding the source. [244-2.1(a), (b) & (c)]

(2) Each submission under the CAIR NOx Annual Trading Program shall be submitted, signed, and certified by the CAIR designated representative for each CAIR NOx source on behalf of which the submission is made. Each such submission shall include the following certification statement by the CAIR designated representative: "I am authorized to make this submission on behalf of the owners and operators of the source or units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment." [244-2.1(e)]

Condition 40: Compliance Certification
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement:6 NYCRR Subpart 244-8

Item 40.1:

The Compliance Certification activity will be performed for the facility:
The Compliance Certification applies to:

Emission Unit: S-00001 Emission Point: 00001

Regulated Contaminant(s):
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

Item 40.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Monitoring and Reporting NOx emissions:

- 1) The owners and operators, and to the extent applicable, the Clean Air Interstate Rule (CAIR) designated representative, of a CAIR NOx unit, shall comply with the monitoring, recordkeeping, and reporting requirements as provided in Subpart 6 NYCRR Part 244-8 and in Subpart H of 40 CFR Part 75. For purposes of complying with such requirements, the definitions in section 244-1.2



and in 40 CFR 72.2 shall apply, and the terms "affected unit," "designated representative," and "continuous emission monitoring system" (or CEMS) in 40 CFR Part 75 shall be deemed to refer to the terms "CAIR NOx unit," "CAIR designated representative," and "continuous emission monitoring system" (or "CEMS") respectively, as defined in section 244-1.2. [244-8.1]

2) Whenever the owner or operator makes a replacement, modification, or change in any certified continuous emission monitoring system under 6NYCRR Part 244-8.1(a)(1) that may significantly affect the ability of the system to accurately measure or record NOx mass emissions or heat input rate or to meet the quality-assurance and quality-control requirements of 40 CFR 75.21 or appendix B to 40 CFR Part 75, the owner or operator shall recertify the monitoring system in accordance with 40 CFR 75.20(b) . Furthermore, whenever the owner or operator makes a replacement, modification, or change to the flue gas handling system or the unit's operation that may significantly change the stack flow or concentration profile, the owner or operator shall recertify each continuous emission monitoring system whose accuracy is potentially affected by the change, in accordance with 40 CFR 75.20(b). Examples of changes to a continuous emission monitoring system that require recertification include replacement of the analyzer, complete replacement of an existing continuous emission monitoring system, or change in location or orientation of the sampling probe or site. Any fuel flowmeter system, and any excepted NOx monitoring system under appendix E to 40 CFR part 75, under 6NYCRR Part 244-8.1(a)(1) are subject to the recertification requirements in 40 CFR 75.20(g)(6). [224-8.2(d)(2)]

3) Whenever 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 missing data procedures in Subpart D or Subpart H of, or appendix D or appendix E to 40 CFR part 75. [244-8.3(a)]

4) The owners and operators, and to the extent applicable, the CAIR designated representative shall comply with all recordkeeping and reporting requirements in section 244-8.5, the applicable recordkeeping and reporting requirements under 40 CFR 75, and the requirements of 6NYCRR Part 244-2.1(e)(1). [244-8.5(a)]

5) The owner or operator of a CAIR NOx unit shall comply with requirements of 40 CFR 75.73(c) and (e) for



monitoring plans. [244-8.5(b)]

6) The CAIR designated representative shall submit a certification application to the department within 45 days after completing all initial certification or recertification tests required under section 244-8.2, including the information required under 40 CFR 75.63. [244-8.5(c)]

7) The CAIR designated representative shall submit quarterly reports of the NOx mass emissions data and heat input data for each CAIR NOx unit, in an electronic quarterly report in a format prescribed by the Administrator, for each calendar quarter beginning with the calendar quarter covering January 1, 2008 through March 31, 2008; unless the unit commences commercial operation on or after July 1, 2007, then quarterly reporting commences with the calendar quarter corresponding to the earlier of the date of provisional certification or the applicable deadline for initial certification under section 244-8.1(b). [244-8.5(d)(1)]

8) The CAIR designated representative shall submit each quarterly report to the Administrator within 30 days following the end of the calendar quarter covered by the report. Quarterly reports shall be submitted in the manner specified in 40 CFR 75.73(f). [244-8.5(d)(2)]

9) For CAIR NOx units that are also subject to an Acid Rain emissions limitation or the CAIR NOx Ozone Season Trading Program, CAIR SO2 Trading Program, or the Mercury Reduction Program for Coal-Fired Electric Utility Steam Generating Units (6NYCRR Part 246), quarterly reports shall include the applicable data and information required by Subparts F through I of 40 CFR Part 75 as applicable, in addition to the NOx mass emission data, heat input data, and other information required by Subpart 244-8. [244-8.5(d)(3)]

10) Compliance certification - The CAIR designated representative shall submit to the Administrator a compliance certification (in a format prescribed by the Administrator) in support of each quarterly report based on reasonable inquiry of those persons with primary responsibility for ensuring that all of the unit's emissions are correctly and fully monitored. The certification shall state that: [244-8.5(e)]

(i) the monitoring data submitted were recorded in accordance with the applicable requirements of 6NYCRR Part 244 and 40 CFR Part 75, including the quality assurance procedures and specifications; and



(ii) for a unit with add-on NO_x emission controls and for all hours where NO_x data are substituted in accordance with 40 CFR 75.34(a)(1), the add-on emission controls were operating within the range of parameters listed in the quality assurance/quality control program under appendix B to 40 CFR Part 75 and the substitute data values do not systematically underestimate NO_x emissions.

Monitoring Frequency: CONTINUOUS
Averaging Method: ANNUAL TOTAL
Reporting Requirements: QUARTERLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 7/30/2011.
Subsequent reports are due every 3 calendar month(s).

Condition 41: CAIR SO₂ Trading Program General Provisions
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement: 6 NYCRR Subpart 245-1

Item 41.1:

This Condition applies to:

Emission Unit: S00001 Emission Point: 00001

Item 41.2:

1) As of midnight of March 1, or midnight of the first business day thereafter (if March 1 is not a business day) for a control period, the owners and operators of each Clean Air Interstate Rule (CAIR) SO₂ source shall hold, in the source's compliance account, a tonnage equivalent in CAIR SO₂ allowances available for compliance deductions for the control period (January 1 through December 31) not less than the tons of total sulfur dioxide emissions for the control period from all CAIR SO₂ units at the source. A CAIR SO₂ allowance shall not be deducted, for compliance with the requirements under paragraph (2) of this section, for a control period in a calendar year before the year for which the CAIR SO₂ allowance was allocated.
[(245-1.2(b)(5), 245-1.6(c)(1), 245-1.2(b)(36), 245-1.6(c)(3)]

2) The owners and operators shall hold in their compliance account, CAIR SO allowances available for compliance deductions for the control period starting on the later of January 1, 2010 or the deadline for meeting a CAIR SO₂ unit's monitor certification requirements under section 245-8.1(b)(1), (2), or (5) and for each control period thereafter. [245-1.6(c)(2)]

3) If a CAIR SO₂ source emits sulfur dioxide during any control period in excess of the CAIR SO₂ emissions limitation, the owners and operators of the source shall surrender the CAIR SO₂ allowances required for deduction under 6NYCRR Part 245-6.5(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Act or applicable State law. Each ton of such excess emissions and each day of such control period shall constitute a separate violation of this Subpart, the Act, and applicable State law.
[(245-1.6(d)]

4) Unless otherwise provided, the owners and operators of the CAIR SO₂ source shall keep on site at the source each of the following documents for a period of five years from the date the



document is created. This period may be extended for cause, at any time before the end of five years, in writing by the department or the Administrator: [245-1.6(e)]

(i) The certificate of representation under 6NYCRR Part 245-2.4 for the CAIR designated representative for 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 five-year period until such documents are superseded because of the submission of a new certificate of representation under 6NYCRR Part 245-2.4 changing the CAIR designated representative.

(ii) All emissions monitoring information, in accordance with 6NYCRR Part 245-8, provided that to the extent that 6NYCRR Part 245-8 provides for a three-year period for recordkeeping, the three-year period shall apply.

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR SO₂ Trading Program.

(iv) Copies of all documents used to complete a CAIR permit application and any other submission under the CAIR SO₂ Trading Program or to demonstrate compliance with the requirements of the CAIR SO₂ Trading Program.

Condition 42: Designated CAIR Representative
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement:6 NYCRR Subpart 245-2

Item 42.1:

This Condition applies to:

Emission Unit: S00001 Emission Point: 00001

Item 42.2:

1) Each CAIR SO₂ source shall have one and only one CAIR designated representative and may have one alternate representative, as per 6NYCRR Part 245-2.2, with regard to all matters under the CAIR SO₂ Trading Program. The CAIR designated representative of the CAIR SO₂ source shall be selected by an agreement binding on the owners and operators of the source and all CAIR SO₂ units at the source and shall act in accordance with the certification statement in 6NYCRR Part 245-2.4(a)(4)(iv). Upon receipt by the Administrator of a complete certificate of representation under 6NYCRR Part 245-2.4, the CAIR designated representative of the source shall represent and, by his or her representations, actions, inactions, or submissions, legally bind each owner and operator of the CAIR SO₂ source represented and each CAIR SO₂ unit at the source in all matters pertaining to the CAIR SO₂ Trading Program, notwithstanding any agreement between the CAIR designated representative and such owners and operators. The owners and operators shall be bound by any decision or order issued to the CAIR designated representative by the department, the Administrator, or a court regarding the source or unit. [245-2.1(a), (b) & (c)]

(2) Each submission under the CAIR SO₂ Trading Program shall be submitted, signed, and certified by the CAIR designated representative for each CAIR SO₂ source on behalf of which the submission is made. Each such submission shall include the following certification statement by the CAIR designated representative: "I am authorized to make this submission on behalf of the owners and operators of the source or units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements



and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment." [245-2.1(e)]

Condition 43: Compliance Certification
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement: 6 NYCRR Subpart 245-8

Item 43.1:

The Compliance Certification activity will be performed for the facility:
The Compliance Certification applies to:

Emission Unit: S-00001 Emission Point: 00001

Regulated Contaminant(s):
CAS No: 007446-09-5 SULFUR DIOXIDE

Item 43.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Monitoring and Reporting SO₂ emissions:

1) The owners and operators, and to the extent applicable, the Clean Air Interstate Rule (CAIR) designated representative, of a CAIR SO₂ unit, shall comply with the monitoring, recordkeeping, and reporting requirements as provided in Subpart 6 NYCRR Part 245-8 and in 40 CFR Part 75, Subparts F and G. For purposes of complying with such requirements, the definitions in section 245-1.2 and 40 CFR 72.2 shall apply, and the terms "affected unit," "designated representative," and "continuous emission monitoring system" (or "CEMS") in 40 CFR Part 75 shall be deemed to refer to the terms "CAIR SO₂ unit," "CAIR designated representative," and "continuous emission monitoring system" (or "CEMS") respectively, as defined in section 245-1.2. The owner or operator of a unit that is not a CAIR SO₂ unit but that is monitored under 40 CFR 75.16(b)(2) shall comply with the same monitoring, recordkeeping, and reporting requirements as a CAIR SO₂ unit. [245-8.1]

2) The owner or operator of each CAIR SO₂ unit shall:
[245-8.1(a)]

(i) install all monitoring systems required under this Subpart for monitoring SO₂ mass emissions and individual unit heat input (including all systems required to monitor SO₂ concentration, stack gas moisture content, stack gas flow rate, CO₂ or O₂ concentration, and fuel flow rate, as



applicable, in accordance with 40 CFR 75.11 and 40 CFR 75.16);

(ii) successfully complete all certification tests required under Part 245-8.2 and meet all other requirements of this section and 40 CFR Part 75 applicable to the monitoring systems under this section; and

(iii) record, report, and quality-assure the data from the monitoring systems under paragraph of this section.

3) The owner or operator shall meet the monitoring system certification and other requirements of section 245-8.1(a)(1) and (2) on or before the following dates.

The owner or operator shall record, report, and quality-assure the data from the monitoring systems under section 245-8.1(a)(1) on and after the following dates. [245-8.1(b)]

(i) For the CAIR SO₂ unit that commences commercial operation before July 1, 2008, by January 1, 2009.

(ii) For the CAIR SO₂ unit that commences commercial operation on or after July 1, 2008, by the later of the following dates: January 1, 2009; or 90 unit operating days or 180 calendar days, whichever occurs first, after the date on which the unit commences commercial operation.

4) Whenever the owner or operator makes a replacement, modification, or change in any certified continuous emission monitoring system under section 245-8.1(a)(1) that may significantly affect the ability of the system to accurately measure or record SO₂ mass emissions or heat input rate or to meet the quality-assurance and quality-control requirements of 40 CFR 75.21 or appendix B to 40 CFR Part 75, the owner or operator shall recertify the monitoring system in accordance with 40 CFR 75.20(b). Furthermore, whenever the owner or operator makes a replacement, modification, or change to the flue gas handling system or the unit's operation that may significantly change the stack flow or concentration profile, the owner or operator shall recertify each continuous emission monitoring system whose accuracy is potentially affected by the change, in accordance with 40 CFR 75.20(b). Examples of changes to a continuous emission monitoring system that require recertification include: replacement of the analyzer, complete replacement of an existing continuous emission monitoring system, or change in location or orientation of the sampling probe or site. Any fuel flowmeter system under section 245-8.1(a)(1) is subject to the recertification requirements in 40 CFR 75.20(g)(6). [245-8.2(d)(2)]

5) Whenever 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 missing data procedures in Subpart D of or appendix D to 40 CFR Part 75.

[245-8.3(a)]

6) The CAIR designated representative shall comply with all recordkeeping and reporting requirements in section 245-8.3, the applicable recordkeeping and reporting requirements in Subparts F and G of 40 CFR Part 75, and the requirements of section 245-2.1(e)(1).

[245-8.5(a)]

7) The owner or operator of a CAIR SO₂ unit shall comply with requirements of 40 CFR 75.62 for monitoring plans.

[245-8.5(b)]

8) The CAIR designated representative shall submit an application to the department within 45 days after completing all initial certification or recertification tests required under section 245-8.2, including the information required under 40 CFR 75.63. [245-8.5(c)]

]

9) The CAIR designated representative shall submit quarterly reports of the SO₂ mass emissions data and heat input data for each CAIR SO₂ unit, in an electronic quarterly report in a format prescribed by the Administrator, for each calendar quarter beginning with:

[245-8.5(d)(1)]

i) the calendar quarter covering January 1, 2009 through March 31, 2009 for a unit that commences commercial operation before July 1, 2008; or

ii) for a unit that commences commercial operation on or after July 1, 2008, the calendar quarter corresponding to the earlier of the date of provisional certification or the applicable deadline for initial certification under section 245-8.1(b), unless that quarter is the third or fourth quarter of 2008, in which case reporting shall commence in the quarter covering January 1, 2009 through March 31, 2009.

10) The CAIR designated representative shall submit each quarterly report to the Administrator within 30 days following the end of the calendar quarter covered by the report. Quarterly reports shall be submitted in the manner specified in 40 CFR 75.64. [245-8.5(d)(2)]

11) For CAIR SO₂ units that are also subject to an Acid Rain emissions limitation or the CAIR NO_x Annual Trading Program, CAIR NO_x Ozone Season Trading Program, or the Mercury Reduction Program for Coal-Fired Electric Utility



Steam Generating Units (6 NYCRR Part 246), quarterly reports shall include the applicable data and information required by Subparts F through I of 40 CFR Part 75 as applicable, in addition to the SO₂ mass emission data, heat input data, and other information required by this Subpart. [245-8.5(d)(3)]

12) The CAIR designated representative shall submit to the Administrator a compliance certification (in a format prescribed by the Administrator) in support of each quarterly report based on reasonable inquiry of those persons with primary responsibility for ensuring that all of the unit's emissions are correctly and fully monitored. The certification shall state that: [245-8.5(e)]

- i) the monitoring data submitted were recorded in accordance with the applicable requirements of this Subpart and 40 CFR Part 75, including the quality assurance procedures and specifications; and
- ii) for a unit with add-on SO₂ emission controls and for all hours where SO₂ data are substituted in accordance with 40 CFR 75.34(a)(1), the add-on emission controls were operating within the range of parameters listed in the quality assurance/quality control program under appendix B to 40 CFR Part 75 and the substitute data values do not systematically underestimate SO₂ emissions.

Monitoring Frequency: CONTINUOUS
Averaging Method: ANNUAL TOTAL
Reporting Requirements: QUARTERLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 7/30/2011.
Subsequent reports are due every 3 calendar month(s).

Condition 44: Compliance Certification
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement: 40CFR 52.21, Subpart A

Item 44.1:
The Compliance Certification activity will be performed for the Facility.

Regulated Contaminant(s):
CAS No: 0NY075-00-0 PARTICULATES

Item 44.2:
Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES
Monitoring Description:
Attachment I
AES Somerset, L.L.C. (AES)
Somerset Station



PSD Permit Conditions

AES Somerset, L.L.C. (AES) is operating a 675 Megawatt (MW) steam electric generating plant (Somerset Station, formerly known as Kintigh Station) in Somerset, New York. The facility combusts coal and petcoke in the main boiler as the primary fuels. The plant consists principally of a Babcock & Wilcox steam generating unit (B&W boiler), two auxiliary oil-fired boilers and various coal and limestone storage and handling systems. This project is subject to PSD for the pollutant's particulate matter, sulfur dioxide, nitrogen oxides, carbon monoxide, fluorides, lead, mercury and beryllium. In addition to the operation of the steam generating plant (Somerset Station), AES is hosting and partly funding a pilot project, an Environmental Control Technology Center (ECTC, formerly known as the High Sulfur Test Center (HSTC) sponsored by the Electric Power Research Institute (EPRI), the Empire State Electric Energy Research Corporation (ESEERCO), AES and the New York State Energy Research Development Authority (NYSERDA). As host, AES provides the ECTC with a small slip stream of the exhaust gas generated by the boilers at the plant. The ECTC spikes the small portion of the flue gas with additional sulfur dioxide, scrubs the sulfur dioxide "enriched" flue gas using various experimental control systems, and vents the exhaust gas back to the AES stack. This ECTC project is subject to PSD for the pollutant sulfur dioxide. Operation of the Somerset Station and construction/operation of the ECTC are subject to the following conditions:

I. Stack Emission Rates (B&W Boiler)

A. Particulate Matter (PM) and Opacity

1. Emissions of PM shall be controlled by the use of an electrostatic precipitator (ESP) to a rate not to exceed 0.030 pounds per million British thermal units (lbs/MMBtu) heat input.
2. Opacity of emissions shall not exceed 20 percent (six-minute average) except for one six-minute set per hour which shall not exceed 27 percent.
3. The addition of an Environmental Control Test Center shall not alter the requirements and limitations of Conditions I.A.1 and I.A.2 in any way.

B. Sulfur Dioxide (SO₂)

1. Emissions of SO₂ shall be controlled by the use of a flue gas desulfurization (FGD) system and the use of coal and petcoke blend with a maximum sulfur content of 3.50 lbs/MMBtu heat input. Emissions of SO₂ shall not exceed 0.70 lbs/MMBtu heat input and 10 percent of the potential combustion concentration (90 percent reduction) or 30



percent of the potential combustion concentration (70 percent reduction) when emissions are less than 0.60 lbs/MMBTU heat input. The emission limitation is based on the average emission rate for 30 successive boiler operating days. Compliance with the allowable SO₂ removal efficiency shall be determined in accordance with the methods specified in 40 CFR Part 60, Appendix A, Method 19, Sections 3 and 5. The SO₂ removal efficiency shall first be calculated using the equation in Section 3.2. If that method cannot be used to determine compliance, the equation in Section 3.3 can be utilized. The sample taken for analysis can be obtained prior to pulverization but after any coal cleaning.

2. The addition of an Environmental Control Test Center shall not alter the requirements and limitations of Conditions I.B.1 in any way.

3. AES may re-heat the stack gases in order to prevent damage to equipment located downstream of the FGD system. The by-pass of the flue gases around the FGD system shall be permissible under the following conditions:

a. AES shall perform flue gas by-pass only to achieve the stack temperature of 122 degrees F.

This minimum stack temperature will prevent equipment damage. However, the limitations listed in Condition I.B.1, shall not be exceeded under any circumstances. The minimum stack temperature was determined by AES during the first six months of normal operation (defined as the six-month period directly following performance of the stack test(s) required for compliance determination(s) pursuant to federal New Source Performance Standards codified at 40 CFR Part 60, Subpart Da). The information pertaining to this temperature limitation was submitted to the U.S. Environmental Protection Agency (EPA) for approval and, once approved, became part of this permit.

b. AES shall perform flue gas by-pass only for that volume of gas needed to achieve the stack temperature limitation of Condition I.B.3.a., plus or minus 10 degrees Fahrenheit. The remainder of the flue gas shall be treated by the FGD system. Ranges for various FGD parameters shall be determined by AES during the first six months of normal operation and submitted to the EPA for verification that the FGD system is operating normally. If more re-heat is required to achieve the safe stack temperature than can be achieved through by-pass, additional heat shall be provided by other means of re-heat.

c. Whenever Condition I.B.1. is exceeded, AES shall submit to EPA in its quarterly reports the daily average stack temperature during the day(s) of the exceedance and whether or not any flue gases were by-passing the FGD at any time during the 48 hours preceding the exceedance.



C. Nitrogen Oxides (NO_x)

Emissions of NO_x shall be controlled by the use of good boiler design and good combustion practices to a rate not to exceed 0.60 lbs/MMBtu heat input.

D. Carbon Monoxide (CO)

Emissions of CO shall be controlled by the use of good boiler design and good combustion practices.

E. Fluorides

Emissions of fluorides shall be reduced by the FGD system.

F. Lead, Mercury, Beryllium

Emissions of these trace elements shall be controlled by the ESP and the FGD system.

II. Continuous Monitoring Requirements (B&W Boiler)

A. The facility shall be equipped with continuous monitors (which meet the performance specifications in 40 CFR Part 60, Appendix B) to measure:

1. Opacity of emissions,
2. SO₂ emissions monitored at:
 - i) the location between the electrostatic precipitator (ESP) and the FGD inlet and
 - ii) the location after the FGD, after the introduction of the Environmental Control Test Center (ECTC) and after introduction of the flue gases by-passing the FGD. For the purposes of calculating SO₂ removal efficiency, the former location shall be deemed as the inlet to the sulfur dioxide control device and the latter location shall be deemed as the outlet from the sulfur dioxide control device.
3. NO_x emissions discharged to the atmosphere,
4. CO emissions discharged to the atmosphere,
5. Oxygen (O₂) or carbon dioxide (CO₂) content of the flue gas at each location where SO₂ or NO_x emissions are monitored.

B. Daily fuel analysis shall consist of the following procedures:

1. Sample preparation-American Society for Testing Materials (ASTM) 2013
2. Sulfur analysis - ASTM D 3177
3. Moisture analysis - ASTM D 3173
4. Gross calorific value - ASTM D 3176 or D 2015

The most recent revisions of the above ASTM procedures shall be utilized. If more than one fuel type is used to produce the daily fuel supply, the equation contained in Appendix 1 shall be used to calculate the sulfur content



of the daily fuel supply.

III. Testing Requirements (B&W Boiler)

A. Tests shall be conducted in accordance with test methods established in 40 CFR Part 60, Appendix A to determine emissions of PM, SO₂ and NO_x. Such tests shall be conducted within 180 days of initial start-up of the boiler. {These tests have already been completed.}

B. All continuous monitors shall be installed within 60 days of initial start-up of the boiler. The opacity, SO₂, NO_x and O₂ or CO₂ monitors shall be tested during the performance tests referred to above in accordance with manufacturers' recommendations and with EPA approval. {The required monitors have been installed and tested.}

IV. Other Conditions (B&W Boiler)

A. After review of bids but prior to executing contracts with air pollution control equipment vendors, the company shall submit the design parameters listed in Appendix 2. EPA will review the submittal(s) to determine if the proposed air pollution control equipment can be reasonably expected to achieve the emission standards specified in Condition I of this permit. EPA will make every reasonable effort to review the design parameters and respond to the company within 30 days of receipt of a complete submittal. In addition, the company shall submit the design parameters listed in Appendix 2 at the time that consistency with the approval(s) is granted.

B. A maintenance schedule for the FGD system shall be submitted; such schedule shall include a plan for routine maintenance and inspection of the system hardware to ensure continuous and reliable performance. AES shall submit the schedule within 90 days after start-up. EPA will review the maintenance schedule to ensure that it is reasonable. Upon approval, the schedule shall become an enforceable condition of the permit. {The EPA-approved FGD maintenance schedule has been included here as Attachment II.}

C. The report that must be submitted after the initial six-month period pursuant to Condition I.B.3. of this permit shall include data obtained from monitoring those parameters necessary to establish the conditions under which by-pass re-heat is considered imperative. The conclusions reached must reflect the observations and monitoring data compiled. The stack temperature established shall be maintained under all conditions unless it can be shown that re-heat requirements for the



protection of equipment vary due to specific fuel properties or combustion parameters. {This report has already been submitted to EPA. }

D. For the purposes of inhibiting the formation of gypsum scale and enhancing the utilization of limestone in the FGD system, AES shall be allowed to use emulsified elemental sulfur with the limestone in the FGD system. The addition of emulsified elemental sulfur in the FGD system shall not alter the requirements and limitations listed in this permit for each PSD-affected pollutant. The amount of emulsified elemental sulfur used shall be recorded by AES on a daily basis and such records shall be kept for a period of three years. The records shall be made available to Agency representatives upon request.

V. Fugitive Emissions

A. Coal and Petcoke Handling

1. Coal and petroleum coke shall be unloaded by a rotary car dumper which will be housed in an unloading building and fitted with a wet dust suppression system.
2. Enclosed belt conveyors shall transport coal and petcoke to the coal pile and/or crusher house. The surge bins and transfer points (including, but not limited to, Transfer Points 1 and 2 and the rotary car dumper) shall be in an enclosed structure and a wet system shall be utilized for dust control.
3. Emissions from conveyors between the first coal transfer house and the stacker-reclaimer shall be controlled by a water spray dust suppression system. All coal piles and the area around the active coal pile shall also be sprayed with water on a frequent basis.
4. All conveyors from the fuel handling building to the power house shall be enclosed and shall utilize wet dust control systems. Fabric filters shall vent the storage silos in the power house. Cascade conveyors shall be enclosed in a gallery.

B. Limestone Handling

1. The dumping station shall be enclosed with roller-type doors at both ends of the structure and equipped to handle bottom unloading trucks and rail cars. The doors shall be closed during material unloading.
2. All conveyors shall be enclosed. Fabric filter dust collectors shall vent all emissions from conveyor transfer points.
3. The inactive limestone storage pile shall be sprayed with water, when necessary, to minimize dust emissions.
4. The active limestone storage pile shall be completely



enclosed in a building.

C. Flyash Handling

1. The flyash handling system is pneumatic so there will be no emission points from this system.
2. Flyash storage silo emissions shall be controlled by redundant bag filters.

VI. Auxiliary Boilers

There will be two auxiliary boilers, each with a design heat input of 195 MMBtu/hr. The units shall be used to provide steam for a cold start of the main unit. This will require their use for only a few hours per year. The units shall also be used for heating the buildings and for maintaining essential equipment in a hot condition when the main boiler is not operating. AES shall use No. 2 fuel oil to fire these units.

VII. Environmental Control Test Center (ECTC) Requirements

A. The mass rate of SO₂ that is added by the ECTC, not including the mass rate of SO₂ provided by the boiler off gases, shall be limited to 63 tons per year. SO₂ monitors shall be located at the inlet and outlet of the ECTC. If the outlet SO₂ concentration is higher than the inlet concentration from the boiler, then the amount of extra SO₂ leaving the facility is calculated and logged against the 63 tons/year limit that the ECTC may add to the flue gas.

B. The volumetric flow rate which is taken from the boiler off gases upstream of the SO₂ and particulate matter controls for introduction into the ECTC shall be limited to two percent (2%) of the design volumetric flow rate exiting the boiler.

C. The ECTC shall be equipped with a continuous SO₂ monitor to measure and record the amount of SO₂ added to the ECTC by means of SO₂ spiking. AES shall determine, by a method submitted to and approved by EPA, the mass rate of SO₂ spiking prior to the time of operation of the ECTC. EPA may approve an alternate method of monitoring the amount of added SO₂ due to spiking. In addition, AES shall submit to EPA, on a quarterly basis (90 days), continuous monitoring records for the SO₂ spike associated with the ECTC and the mass spike rate for that quarter.

VIII. Carbide Lime as a Partial Substitute to Limestone



A. Somerset Station is authorized to use carbide lime as a partial substitute for natural mined limestone reagent feedstock in the flue gas desulfurization system under the following conditions:

1. The maximum amount of limestone to be replaced with carbide lime shall not exceed 25% by weight of the total limestone used regularly.
2. The addition of carbide lime shall not alter the requirements and limitations specified under Condition I.B.1 in any way.

IX. Recordkeeping and Reporting Requirements

A. All records required to be maintained by this permit shall be kept for a period of at least five (5) years.

B. All reports required by this permit shall be submitted to:

Air Compliance Branch
U.S. Environmental Protection Agency
Region II
290 Broadway - 21st Floor
New York, New York 10007-1866

A copy of the report shall also be submitted to:

Mr. Steven C. Riva, Chief
Permitting Section
Air Programs Branch
U.S. Environmental Protection Agency
Region II
290 Broadway - 25th Floor
New York, New York 10007-1866

Region 2 CEM Coordinator
U.S. Environmental Protection Agency
Region II
Air and Water Section
Monitoring Management Branch
2890 Woodbridge Avenue - MS-102
Edison, New Jersey 09937-3679

Attachment II
AES Somerset, L.L.C. (AES)
Somerset Station
PSD Permit Conditions
Schedule for FGD Routine Maintenance



Somerset Station has six (6) FGD modules which includes two (2) spares. This could allow AES to periodically remove a module from service to perform inspections and routine maintenance. AES currently plans to remove a module from service after approximately two (2) months of operation or as modified based upon operational experience. The actual duration is dependent upon several factors.

A. AES expects to normally (i.e., full load) have four (4) modules operating with one "stand-by" spare and one isolated and out for maintenance. Every two (2) months one of the four (4) operating modules will be removed from service and be subject to inspect routine maintenance. At that time, the "stand-by" spare module will be placed into service. Four modules will continue to operate. The module that had been out for inspection and routine maintenance will then become the new stand-by spare.

B. This process will repeat for each module approximately every two (2) months or as modified based upon operational experience. The module most recently removed from service will be subject to the inspection and routine maintenance items listed below in Tables A and B. Other routine maintenance will be performed as required.

C. Certain items can only be inspected during major plant outages that normally are expected to occur yearly. These are listed in Table C.

D. AES shall maintain detailed maintenance and inspection logs, to be made available to EPA Region II upon request. Such logs shall include the time off and on for each module, problems that were observed, and a description of the maintenance work performed.

E. Modification of this FGD module operation and maintenance schedule shall be made only after formal approval by EPA Region II.

TABLE A	TABLE B
FGD MODULE	ROUTINE
INSPECTION	MAINTENANCE
ITEMS	

Mist Eliminator	Cleaning Mist Eliminators
Wash Nozzles	Clean Wash Nozzles
Spray Nozzles	Recycle Pump Maintenance
Module Lining	Agitator Maintenance

TABLE C
 MAJOR PLANT



OUTAGE ITEMS

Inlet Control Dampers (6)
Inlet Isolation Dampers (6)
Outlet Isolation Dampers (6)
Bypass Damper (1)
Reheat Damper (1)
Outlet Ductwork Linings

Appendix 1
AES Somerset, L.L.C. (AES)
Somerset Station
PSD Permit Conditions

If more than one type of coal is used to produce the daily fuel supply, the following shall be used to calculate the sulfur content per unit of heat content of the daily coal supply, %S/GCV:

$$\%S/GCV = \frac{\sum_{k=1}^n (Y_k (\%S_k/GCV_k))}{\sum_{k=1}^n Y_k}$$

Where:

Y_k = the fraction of total mass input derived from each type, k , of coal.
 $\%S_k$ = sulfur content of each coal type, k , on a dry basis, weight percent.
 GCV_k = gross calorific value for each coal type, k , on a dry basis, Btu/lb.
 n = number of different types of coal.

Appendix 2
AES Somerset, L.L.C. (AES)
Somerset Station
PSD Permit Conditions

The following information must be submitted to the EPA for approval before and after contracts for the control equipment are finalized:

- I. STEAM GENERATOR DATA
 - A. Type of boiler (manufacturer)
 - B. Size of boiler (heat input, MMBtu/hr)

II. FUEL DATA
Provide long-term average and ranges for specified short-term and long-term averaging periods for the following:



- A. Primary fuel (coal oil)
- B. Start-up fuel
- C. Alternate fuels
- D. Brief description of what fuels will be fired including
 - estimated percentage heat input
- E. Solid fuel data (all solid fuels to be fired)
 - 1. Ultimate analysis (as burned) % by weight sulfur also include chlorine, ash, moisture and gross heating value (Btu/lb)
 - 2. Estimated resistivity of particulate as a function of gas temperature (if known)
 - 3. Estimated ash analysis (% by weight - dry)
 - 4. Particulate density
- F. Particulate size analysis for ash

Is a contract signed for the coal? If no contract is signed, we would need the above information for all coals that are being contemplated for usage and percentage usage where coals are to be blended.

III. ELECTROSTATIC PRECIPITATOR (ESP) DATA

- Final Design Criteria
 - A. Design emission rate (lbs/MMBtu) for particulate matter (before and after proposed controls).
 - B. Total gas flow from steam generator at full load and a ESP operating temperature (ACFM).
 - C. ESP operating temperature (\pm F) range.
 - D. Number of separate ESP modules under consideration.
 - E. Approximate specific collection area (SCA).
 - F. Number of separate electrical sections for each module under consideration.
 - G. Type of power control and instrumentation.
 - H. Estimated linear velocity of gas through each module at full load (actual feet/sec) or range of acceptable velocities.
 - I. Briefly describe techniques used to ensure uniform linear velocity within ESP.
 - I. Nature and terms of performance guarantee.
 - K. Briefly describe system used to remove and convey collected ash to final disposal.
 - L. General flow diagram for the ESP.



- M. Provide design criteria and engineering data for the major elements of the ESP for the Somerset Station to include the following parameters:
1. Electric length
 2. Wire to Plate Spacing
 3. Wire to Wire Spacing
 4. Wire Diameter
 5. Wires Per Section
 6. Wire Length Per Section
 7. Plate Area Per Section
 8. Number of Electrical Sections
 9. Duct Width
 10. Maximum Applied Voltage

IV. SULFUR DIOXIDE SCRUBBER DATA

Final Design Criteria

A. Design emission rate (lbs/MMBtu) of SO₂ (before and

after proposed controls).

B. Design data or criteria for the scrubber modules

to include:

1. Scrubber types (TCS, spray tower, etc.)
 2. Absorbent type
 3. Possible scrubber liquor additives (e.g., Mg)
 4. Prescrubber design criteria, or acceptable range for 1/g, inlet and outlet chloride, etc.
 5. Design criteria for acceptable ranges for inlet and outlet gas flow and temperature volume percent H₂O, O₂, and SO₂
 6. Specific design criteria or acceptable range for liquid/gas ratio
 7. Estimated scrubber gas velocity
 8. Design criteria or acceptable range of pressure drop across the scrubber (inches of H₂O)
- C. For turbulent contact absorber (TCA) also supply:
1. Design criteria or acceptable ranges for diameter of spheres.
 2. Design criteria or acceptable ranges for the height of sphere in TCA.
 3. Design criteria or acceptable ranges for



number

of grids or screens in TCA.

D. Indicate total number of scrubber modules and number of spare modules during maximum boiler loading.

E. What special precautions will be taken with module

internals and other components (pumps, mist eliminators, fans, etc.) to ensure that

corrosion,

scaling, and plugging do not cause failure of the

system?

F. What special precautions will be taken with control

system, e.g., spare probes, probe site location, probe

sheaths, backup instrumentation to ensure that failure will not lead to excess emissions or

fouling

of components via scaling?

G. Indicate the worst case fuel sulfur and heating value.

H. Indicate the SO₂ absorber stoichiometry (moles limestone).

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 45: Compliance Certification
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement: 40CFR 63.7506(b)(2), Subpart DDDDD

Item 45.1:

The Compliance Certification activity will be performed for the facility:

The Compliance Certification applies to:

Emission Unit: S-00002

Emission Point: 0001A

Item 45.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

1) This subpart establishes national emission limits and work practice standards for hazardous air pollutants (HAP) emitted from industrial, commercial, and institutional boilers and process heaters. This subpart also establishes requirements to demonstrate initial and continuous



compliance with the emission limits and work practice standards.

2) For this regulation, the auxiliary boilers fit the definition of existing (pre 1/13/2005) large (> 10 mmBtu/hr) liquid fuel boilers. As such, 40 CFR Part 63.7506(b) states that these boilers are subject to only the initial notification requirements in §63.9(b), and therefore they are not subject to the emission limits, work practice standards, performance testing, monitoring, startup/shutdown/malfunction plans, site-specific monitoring plans, recordkeeping and reporting requirements of subpart DDDDD or any other requirements in subpart A of Part 63.

3) The initial notification was made to EPA on February 9, 2005.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: ONCE / BATCH OR MONITORING OCCURRENCE

**Condition 46: Elements of a Quality Improvement Plan
Effective between the dates of 04/26/2011 and 04/25/2016**

Applicable Federal Requirement:40 CFR 64.8

Item 46.1:

This Condition applies to:

Emission Unit: S00001 Emission Point: 00001

Item 46.2:

A) Elements of a Quality Improvement Plan (QIP) [40 CFR 64.8(b)]:

(1) The owner or operator shall maintain a written QIP, if required, and have it available for inspection.

(2) The plan initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the owner or operator shall modify the plan to include procedures for conducting one or more of the following actions, as appropriate:

(i) Improved preventive maintenance practices.

(ii) Process operation changes.

(iii) Appropriate improvements to control methods.

(iv) Other steps appropriate to correct control performance.

(v) More frequent or improved monitoring (only in conjunction with one or more steps under paragraphs (i) through (iv) above).

B) If a QIP is required, the owner or operator shall develop and implement a QIP as expeditiously as practicable and shall notify the permitting authority if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined [40 CFR 64.8(c)].

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Facility DEC ID: 9293800003



C) Implementation of a QIP shall not excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act [40 CFR 64.8(e)].

****** Emission Unit Level ******

Condition 47: Emission Point Definition By Emission Unit
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement:6 NYCRR Subpart 201-6

Item 47.1:

The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: S-00001

Emission Point: 00001

Height (ft.): 612

Diameter (in.): 320

NYTMN (km.): 4806.677 NYTME (km.): 207.879 Building: BOILER

Item 47.2:

The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: S-00002

Emission Point: 0001A

Height (ft.): 300

Diameter (in.): 81

NYTMN (km.): 4806.676 NYTME (km.): 207.865 Building: BOILER

Item 47.3:

The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: S-00004

Emission Point: 00004

Height (ft.): 15

Diameter (in.): 18

NYTMN (km.): 4806.85 NYTME (km.): 207.941

Item 47.4:

The following emission points are included in this permit for the cited Emission Unit:

Emission Unit: S-00005

Emission Point: 00005

Height (ft.): 15

Diameter (in.): 18

NYTMN (km.): 4806.85 NYTME (km.): 207.941

Condition 48: Process Definition By Emission Unit
Effective between the dates of 04/26/2011 and 04/25/2016



Applicable Federal Requirement:6 NYCRR Subpart 201-6

Item 48.1:

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: S-00001
Process: P11 Source Classification Code: 1-01-002-02
Process Description:
Emission Unit: S-00001
Process: P11

Emission Source B0001 fires coal and petroleum coke as its baseline fuel. Particulate matter emissions are controlled by the use of an electrostatic precipitator and measured at Emission Point 00001. Sulfur dioxide emissions are controlled by a trona duct injection system and a flue gas desulfurization (FGD) system. Nitrogen oxides emissions are controlled through the use of low-NO_x burners, good combustion practices and an anhydrous ammonia-based selective catalytic reduction (SCR) system. Nitrogen oxides limits on a system-wide basis are established in AES New York's NO_x RACT Compliance Plan. Sulfur dioxide and nitrogen oxides emissions are measured by the continuous emission monitoring system on Emission Point 00001.

Emission Source/Control: B0001 - Combustion
Design Capacity: 6,280 million Btu per hour

Emission Source/Control: ESP01 - Control
Control Type: ELECTROSTATIC PRECIPITATOR

Emission Source/Control: FGD01 - Control
Control Type: FLUE GAS DESULFURIZATION SYSTEM

Emission Source/Control: SCR01 - Control
Control Type: SELECTIVE CATALYTIC REDUCTION (SCR)

Item 48.2:

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: S-00001
Process: P12 Source Classification Code: 1-01-005-01
Process Description:
Emission Unit: S-00001
Process: P12

Emission Source B0001 uses No. 2 fuel oil and kerosene as startup fuel and for flame stabilization. It is used on an as-needed basis. There are no specific fuel oil controls for sulfur dioxide or nitrogen oxides emissions. Sulfur dioxide and nitrogen oxides emissions are measured

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by the continuous emission monitoring system on Emission Point 00001.

Emission Source/Control: B0001 - Combustion
Design Capacity: 6,280 million Btu per hour

Item 48.3:

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: S-00002
Process: PA2
Source Classification Code: 1-01-005-01
Process Description:
Emission Unit: S-00002
Process: PA2

Emission Source B000A uses No. 2 fuel oil mixed with kerosene as its primary fuel. Emission Source B000A is used on an as-needed basis to supply steam for house heat and unit startup when the main boiler is not operating. This only occurs a few times each year. There are no specific fuel oil controls for particulate matter, sulfur dioxide, or nitrogen oxides emissions.

Emission Source/Control: B000A - Combustion
Design Capacity: 195 million Btu per hour

Item 48.4:

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: S-00002
Process: PB2
Source Classification Code: 1-01-005-01
Process Description:
Emission Unit: S-00002
Process: PB2

Emission Source B000B uses No. 2 fuel oil mixed with kerosene as its primary fuel. Emission Source B000B is used on an as-needed basis to supply steam for house heat and unit startup when the main boiler is not operating. This only occurs a few times each year. There are no specific fuel oil controls for particulate matter, sulfur dioxide, or nitrogen oxides emissions.

Emission Source/Control: B000B - Combustion
Design Capacity: 195 million Btu per hour

Item 48.5:

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: S-00003
Process: PCP
Source Classification Code: 3-99-999-94
Process Description:



Coal, Petcoke and Flyash Handling Systems (CPFHS)

Coal and petcoke are delivered to AES Somerset by train. They are unloaded by a rotary car dumper in the coal unloading building.

Flyash is collected in hoppers in the electrostatic precipitator building. It is then transported pneumatically through carbon steel piping to the sludge stabilization building where it is collected and stored in silos until used in the stabilization process, disposed of in the on-site landfill, or sold off-site as beneficial use determinations (BUD) products. The storage silos are equipped with baghouses.

Emission Source/Control: CPFHS - Process

Item 48.6:

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: S-00004

Process: PP1

Source Classification Code: 2-01-001-07

Process Description:

Emission Source G0001 uses No. 2 fuel oil mixed with kerosene as its primary fuel. Emission Source G0001 is used on an as-needed basis to provide emergency power to ensure a safe shutdown of the station in the event of a loss of power. This generator may also provide power for station service. There are no particulate matter, sulfur dioxide, or nitrogen oxides emission control technologies used on this engine.

Emission Source/Control: G0001 - Combustion

Design Capacity: 3,070 horsepower (mechanical)

Item 48.7:

This permit authorizes the following regulated processes for the cited Emission Unit:

Emission Unit: S-00005

Process: PF1

Source Classification Code: 2-01-001-07

Process Description:

Emission Source F0001 uses diesel fuel oil as its primary fuel. Emission Source F0001 is used on an as-needed basis to provide emergency power to ensure a safe shutdown of the station in the event of a loss of power. This generator may also provide power for station service. There are no particulate matter, sulfur dioxide, or nitrogen oxides emission control technologies used on this engine.

Emission Source/Control: F0001 - Combustion

Design Capacity: 2,305 horsepower (mechanical)



Condition 49: Compliance Certification
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement:6 NYCRR 227-1.3 (a)

Item 49.1:

The Compliance Certification activity will be performed for:

Emission Unit: S-00001 Emission Point: 00001

Regulated Contaminant(s):
CAS No: 0NY075-00-0 PARTICULATES

Item 49.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

No person shall operate a stationary combustion installation which exhibits greater than 20 percent opacity (six minute average), except for one six minute period per hour of not more than 27 percent opacity.

Parameter Monitored: OPACITY
Upper Permit Limit: 20 percent
Reference Test Method: 40 CFR 60 APP B
Monitoring Frequency: CONTINUOUS
Averaging Method: 6 MINUTE AVERAGE
Reporting Requirements: QUARTERLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 7/30/2011.
Subsequent reports are due every 3 calendar month(s).

Condition 50: Compliance Certification
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement:6 NYCRR 227-1.4 (b)

Item 50.1:

The Compliance Certification activity will be performed for:

Emission Unit: S-00001 Emission Point: 00001

Item 50.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The owner or operator of a stationary combustion installation which utilizes a continuous opacity monitoring system (COMS) shall include the following in



their quarterly excess emission reports:

- 1) Magnitude, date, and time of each exceedence;
- 2) For each period of excess emissions, specific identification of the cause and corrective action taken;
- 3) Date, time, and duration of each period of COMS downtime, and the corrective action for each period of downtime;
- 4) Total time the COMS is required to record data during the reporting period;
- 5) The total number of exceedences and the duration of exceedences expressed as a percentage of the total time in which the COMS are required to record data; and
- 6) Such other requirements as the Department may deem necessary in order to enforce Article 19 of the Environmental Conservation Law (ECL).

Monitoring Frequency: CONTINUOUS
Reporting Requirements: QUARTERLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 7/30/2011.
Subsequent reports are due every 3 calendar month(s).

Condition 51: Compliance Certification
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement: 6 NYCRR 227-2.4 (a) (1) (i)

Item 51.1:
The Compliance Certification activity will be performed for:

Emission Unit: S-00001 Emission Point: 00001

Regulated Contaminant(s):
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

Item 51.2:
Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)
Monitoring Description:
NOx RACT Ozone Season (May 1 through September 30)

- 1.) The NOx Reasonably Available Control Technology (RACT) limit for the main boiler is 0.45 lb/MMBtu until June 30, 2014. A lower NOx limit becomes effective on July 1, 2014

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and is addressed in the permit condition for citation
6NYCRR Part 227-2.3.

2.) Using the AES Title I NOx RACT Compliance Plan, AES Somerset will demonstrate compliance with the above limit by meeting a system-wide daily (24-hour heat input weighted average) emission limit during the ozone season (May 1 through September 30).

3.) This system-wide averaging plan covers six AES utility stations and is allowed by 6NYCRR Part 227-2.5(b). The NOx RACT Compliance Plan is dated August 5, 1994 and titled "New York State Electric & Gas Corporation Title I NOx Compliance Plan." New York State Electric & Gas Corporation was the previous owner of these facilities. The plan is attached.

4.) Emission data shall be monitored, recorded and reported pursuant to 40 CFR 75.

5.) A NOx RACT compliance report must be submitted within 30 days following the end of the calendar quarter.

Manufacturer Name/Model Number: TECO42C,MILTEN ROY3300/OR EQUIV.

Upper Permit Limit: 0.45 pounds per million Btus

Reference Test Method: 40 CFR 60 APP A, M7E

Monitoring Frequency: CONTINUOUS

Averaging Method: 24 HOUR DAILY BLOCK (ARITHMETIC
AVERAGE)

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2011.

Subsequent reports are due every 3 calendar month(s).

Condition 52: Compliance Certification
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement:6 NYCRR 227-2.4 (a) (1) (i)

Item 52.1:

The Compliance Certification activity will be performed for:

Emission Unit: S-00001

Emission Point: 00001

Regulated Contaminant(s):

CAS No: 0NY210-00-0 OXIDES OF NITROGEN

Item 52.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

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NOx RACT Non-Ozone Season (October 1 through April 30)

1.) The NOx Reasonably Available Control Technology (RACT) limit for the main boiler is 0.45 lb/MMBtu until June 30, 2014. A lower NOx limit becomes effective on July 1, 2014 and is addressed in the permit condition for citation 6NYCRR Part 227-2.3.

2.) Using the AES Title I NOx RACT Compliance Plan, AES Somers will demonstrate compliance with the above limit by meeting a system-wide 30-day rolling heat input weighted average emission limit during the non-ozone season (October 1 through April 30).

3.) This system-wide averaging plan covers six AES utility stations and is allowed by 6NYCRR Part 227-2.5(b). The NOx RACT Compliance Plan is dated August 5, 1994 and titled "New York State Electric & Gas Corporation Title I NOx Compliance Plan." New York State Electric & Gas Corporation was the previous owner of these facilities. The plan is attached.

4.) Emission data shall be monitored, recorded and reported pursuant to 40 CFR 75.

5.) A NOx RACT compliance report must be submitted within 30 days following the end of the calendar quarter.

Manufacturer Name/Model Number: TECO42C,MILTEN ROY3300/OR EQUIV.

Upper Permit Limit: 0.45 pounds per million Btus

Reference Test Method: 40 CFR 60 APP A, M7E

Monitoring Frequency: CONTINUOUS

Averaging Method: 30 DAY ROLLING AVERAGE, ROLLED DAILY

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2011.

Subsequent reports are due every 3 calendar month(s).

Condition 53: Compliance Certification

Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement:40CFR 52.21, Subpart A

Item 53.1:

The Compliance Certification activity will be performed for:

Emission Unit: S-00001

Emission Point: 00001

Regulated Contaminant(s):

CAS No: 007446-09-5

SULFUR DIOXIDE

New York State Department of Environmental Conservation

Permit ID: 9-2938-00003/00002

Facility DEC ID: 9293800003



Item 53.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

1.) When actual SO₂ emissions are 0.60 lb/mmBtu heat input or greater (30-operating day rolling average), then the boiler may not discharge into the atmosphere gases that contain more than 0.70 lbs SO₂/mmBtu heat input (30-operating day rolling average). This limit is from the Prevention of Significant Deterioration (PSD) permit and is more restrictive than the 1.20 lb/mmBtu heat input (30-operating day rolling average) limit in subpart Da of Part 60.

2.) Emissions are calculated and reported according to the following formula, using data collected and reported pursuant to 40 CFR 75:

$$\text{SO}_2 \text{ (lb/MMBtu)} = \text{SO}_2 \text{ (ppm)} \times 1.660 \times 10^7 \times \text{Fc factor} \times 100 / \% \text{CO}_2$$

Where:

SO₂ (ppm) = Sulfur Dioxide emission concentration in ppm measured on an hourly basis by the

Emission

Point 00001 CEM system.

Fc-factor = The appropriate Fc-factor as reported to EPA

under 40 CFR 75.

CO₂ (%) = Carbon dioxide emission concentration in % measured on an hourly basis by

the

Emission Point 00001 CEM

system.

3.) The SO₂ (lb/MMBtu) emission rate for Emission Source B0001 must be monitored and reported using the Emission Point 00001 CEM system as detailed in the AES Somerset Station Unit 1 CEM monitoring plan (April, 2000). Data is reported according to 40 CFR 60.49a within 30 days following the end of the calendar quarter.

4.) It is acceptable for AES Somerset to operate the monitoring system and process data (invalid data periods, etc.) entirely according to 40 CFR 75.

Manufacturer Name/Model Number: TECO-43C/EQUIV

Parameter Monitored: SULFUR DIOXIDE

Upper Permit Limit: 0.70 pounds per million Btus

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Permit ID: 9-2938-00003/00002

Facility DEC ID: 9293800003



Reference Test Method: 40CFR Part 60, App A, Method 6C
Monitoring Frequency: CONTINUOUS
Averaging Method: 30-DAY ROLLING AVERAGE
Reporting Requirements: QUARTERLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 7/30/2011.
Subsequent reports are due every 3 calendar month(s).

Condition 54: Compliance Certification
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement:40CFR 52.21, Subpart A

Item 54.1:

The Compliance Certification activity will be performed for:

Emission Unit: S-00001 Emission Point: 00001
Regulated Contaminant(s):
CAS No: 000630-08-0 CARBON MONOXIDE

Item 54.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

A condition of the Prevention of Significant Deterioration permit for AES Somerset requires emissions of carbon monoxide (CO) shall be minimized by the use of good boiler design and good combustion practices. Emissions are calculated and reported according to the following formula:

CO(lb/MMBtu) = CO(ppm) x 0.726 x 10exp-7 x F-factor x 20.9(20.9 - %O2)

where:

CO(ppm) = Carbon monoxide emission concentration in ppm measured by the FGD inlet CEM

system

F-factor = The appropriate F-factor under 40 CFR 75

O2(%) = Oxygen concentration % measured by the FGD inlet CEM system

There is no applicable numeric CO emission limit for Emission Source B0001, but the plant should minimize CO emissions. Low CO indicates good combustion efficiency. Daily average data are reported according to 40 CFR 60.49a within 30 days following the end of the calendar quarter.

Manufacturer Name/Model Number: ADV POLLUTION INSTRU / OR EQUIV.

New York State Department of Environmental Conservation

Permit ID: 9-2938-00003/00002

Facility DEC ID: 9293800003



Item 56.1:

The Compliance Certification activity will be performed for:

Emission Unit: S-00001

Emission Point: 00001

Item 56.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

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 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.

Parameter Monitored: OPACITY

Upper Permit Limit: 20 percent

Reference Test Method: 40 CFR 60 App B

Monitoring Frequency: CONTINUOUS

Averaging Method: 6 MINUTE AVERAGE

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2011.

Subsequent reports are due every 3 calendar month(s).

Condition 57: Compliance Certification

Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement: 40CFR 60.43a(a)(1), NSPS Subpart Da

Item 57.1:

The Compliance Certification activity will be performed for:

Emission Unit: S-00001

Emission Point: 00001

Regulated Contaminant(s):

CAS No: 007446-09-5 SULFUR DIOXIDE

Item 57.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

1.) When actual sulfur dioxide (SO₂) emissions are GREATER than 0.60 lb/mmBtu heat input, then the SO₂ emissions must be reduced by 90 percent before they are discharged to the atmosphere. The facility uses a flue gas desulfurization (FGD) system to reduce SO₂



emissions.

2.) The percent reduction shall be calculated using the following formula, where the SO₂ lb/mmBtu inlet is measured on the inlet of the flue gas desulfurization system and lb SO₂/mmBtu outlet is measured in the stack, after the FGD. The SO₂ lb/mmBtu values shall be from 30 successive boiler operating days of data [60.5a(c)(3)].

SO₂ % removal efficiency = (1 - (SO₂ lb/MMBtu outlet / SO₂ lb/MMBtu inlet)) x 100

3.) Record keeping and reporting - The SO₂ (lb/mmBtu) emission rate must be monitored and reported using the stack continuous emission monitoring system (CEMS) as detailed in the AES Somerset Station Unit 1 CEM monitoring plan dated April 2000. Data shall be reported according to 40 CFR 60.49Da within 30 days following the end of the calendar quarter. It is acceptable for AES Somerset to operate the monitoring system and process the data entirely according to 40 CFR 75 (invalid data periods, etc.).

4.) This citation also sets an SO₂ emission limit of 1.20 lb/mmBtu heat input for a 30 operating day rolling average. However, EPA's Prevention of Significant Deterioration (PSD) permit sets a more restrictive 0.70 lb SO₂/mmBtu heat input limit for a 30 operating day rolling average, so the 1.20 lb/mmBtu limit is not included in this permit. The PSD limit is in a separate permit condition.

5.) If actual SO₂ emissions are less than 0.60 lb/mmBtu, then see the SO₂ emission limits in the permit condition for citation 40CFR 60.43a(a)(2), which should follow this permit condition.

Manufacturer Name/Model Number: TECO-43C/EQUIV

Parameter Monitored: SULFUR DIOXIDE

Lower Permit Limit: 90 percent

Reference Test Method: 40 CFR 60 APP A, M6C

Monitoring Frequency: CONTINUOUS

Averaging Method: 30-DAY ROLLING AVERAGE

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2011.

Subsequent reports are due every 3 calendar month(s).

Condition 58: Compliance Certification
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement: 40CFR 60.43a(a)(2), NSPS Subpart Da

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Permit ID: 9-2938-00003/00002

Facility DEC ID: 9293800003



Item 58.1:

The Compliance Certification activity will be performed for:

Emission Unit: S-00001

Emission Point: 00001

Regulated Contaminant(s):

CAS No: 007446-09-5 SULFUR DIOXIDE

Item 58.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

1.) When actual sulfur dioxide (SO₂) emissions are LESS THAN 0.60 lb/mmBtu heat input, then the SO₂ emissions must be reduced by at least 70 percent before they are discharged to the atmosphere. The facility uses a flue gas desulfurization (FGD) system to reduce SO₂ emissions.

2.) The percent reduction shall be calculated using the following formula, where the SO₂ lb/mmBtu inlet is measured on the inlet of the flue gas desulfurization system and lb SO₂/mmBtu outlet is measured in the stack, after the FGD. The SO₂ lb/mmBtu values shall be from 30 successive boiler operating days of data [60.5a(c)(3)].

SO₂ % removal efficiency = (1 - (SO₂ lb/MMBtu outlet / SO₂ lb/MMBtu inlet)) x 100

3.) Record keeping and reporting - The SO₂ (lb/mmBtu) emission rate must be monitored and reported using the stack continuous emission monitoring system (CEMS) as detailed in the AES Somerset Station Unit 1 CEM monitoring plan dated April 2000. Data shall be reported according to 40 CFR 60.49Da within 30 days following the end of the calendar quarter. It is acceptable for AES Somerset to operate the monitoring system and process the data entirely according to 40 CFR 75 (invalid data periods, etc.).

4.) If actual SO₂ emissions are greater than 0.60 lb/mmBtu, then see the SO₂ emission limits in the permit condition for citation 40CFR 60.43a(a)(1), which should immediately precede this permit condition.

Manufacturer Name/Model Number: TECO-43C/EQUIV

Parameter Monitored: SULFUR DIOXIDE

Lower Permit Limit: 70 percent

Reference Test Method: 40 CFR 60 App A, M6C

Monitoring Frequency: CONTINUOUS

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Averaging Method: 30-DAY ROLLING AVERAGE
Reporting Requirements: QUARTERLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 7/30/2011.
Subsequent reports are due every 3 calendar month(s).

Condition 59: Compliance Certification
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement:40CFR 60.44a(a)(1), NSPS Subpart Da

Item 59.1:

The Compliance Certification activity will be performed for:

Emission Unit: S-00001 Emission Point: 00001

Regulated Contaminant(s):
CAS No: 0NY210-00-0 OXIDES OF NITROGEN

Item 59.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

NSPS NOx Limit While Firing Subbituminous Coal

1) The applicable NOx limit for Emission Source B0001 is 0.50 lb/MMBtu (30-operating day rolling average) while burning any amount of subbituminous coal with or without bituminous coal or petroleum coke.

2.) Emissions are calculated using data collected and reported pursuant to 40 CFR 75. The NOx (lb/mmBtu) emission rate for Emission Source B0001 is monitored and reported using the Emission Point 00001 CEM system as detailed in the AES Somerset Unit 1 CEM monitoring plan (April, 2000).

NOTE - The same CEM system is used to report NOx emissions under both 40 CFR 60 and 40 CFR 75. There are differences in data validation procedures between the two parts (e.g.,40 CFR 60 requires that data be invalidated retroactively from the time of a failed daily calibration, while 40 CFR 75 requires that data be invalidated prospectively from the time of a failed daily calibration). It is acceptable for AES Somerset to operate the monitoring system and process data (invalid data periods, etc.) entirely according to 40 CFR 75. Thus, the minimum data collection requirements under 40 CFR 60.47a(f) will be achieved; data will be filled in during monitor downtime through proscribed missing data procedures in 40 CFR 75.



while 40 CFR 75 requires that data be invalidated prospectively from the time of a failed daily calibration). It is acceptable for AES Somerset to operate the monitoring system and process data (invalid data periods, etc.) entirely according to 40 CFR 75. Thus, the minimum data collection requirements under 40 CFR 60.47a(f) will be achieved; data will be filled in during monitor downtime through proscribed missing data procedures in 40 CFR 75.

3.) Data is reported according to 40 CFR 60.49a within 30 days following the end of the calendar quarter.

Manufacturer Name/Model Number: TECO 42C, MIL ROY3300 / EQUIVALENT

Parameter Monitored: OXIDES OF NITROGEN

Upper Permit Limit: 0.60 pounds per million Btus

Reference Test Method: 40 CFR 60 APP A, M7E

Monitoring Frequency: CONTINUOUS

Averaging Method: 30-DAY ROLLING AVERAGE

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2011.

Subsequent reports are due every 3 calendar month(s).

Condition 61: Compliance Certification

Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement: 40CFR 60.47a(a), NSPS Subpart Da

Item 61.1:

The Compliance Certification activity will be performed for:

Emission Unit: S-00001

Emission Point: 00001

Item 61.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring the opacity of emissions discharged to the atmosphere, except where gaseous fuel is the only fuel combusted. If opacity interference due to water droplets exists in the stack (for example, from the use of an FGD system), the opacity is monitored upstream of the interference (at the inlet to the FGD system).

The saturated flue gas following the flue gas desulfurization (FGD) system necessitates locating the required opacity monitor in the ductwork preceding the FGD



system for AES Somerset Station.

The opacity standard is set in citation 40CFR Part 60.42Da(b).

Manufacturer Name/Model Number: LAND MODEL 4500 MK II / EQUIVALENT
Parameter Monitored: OPACITY
Upper Permit Limit: 20 percent
Reference Test Method: 40 CFR 60 App B, PS1
Monitoring Frequency: CONTINUOUS
Averaging Method: 6 MINUTE AVERAGE
Reporting Requirements: QUARTERLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 7/30/2011.
Subsequent reports are due every 3 calendar month(s).

Condition 62: Compliance Certification
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement:40 CFR Part 64

Item 62.1:

The Compliance Certification activity will be performed for:

Emission Unit: S-00001 Emission Point: 00001

Regulated Contaminant(s):
CAS No: 0NY075-00-0 PARTICULATES

Item 62.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

1. Compliance Assurance Monitoring (CAM)

Description:

The particulate emissions from Boiler 1, the B&W boiler are subject to 40 CFR Part 64, CAM based on the following criteria:

1.1 - Air Pollutant - Particulate Matter (PM) emitted from the electrostatic precipitators (ESP) and Wet Limestone Flue Gas Desulfurization (FGD) emission control equipment

1.2 - Applicable Regulation – 40 CFR 60.42Da(a)(1)

1.3 - Emission Limit - 0.03 pounds per million Btu heat input

1.4 - Control equipment – Electrostatic Precipitator and Wet Limestone Flue Gas Desulfurization system

1.5 - Emissions - The pre-control emissions from Boiler 1 (emission unit S-00001), emission point 00001), emission source B0001, control device ESP01) are greater than 100



tons per year (tpy).

1.6 – The Compliance Assurance Monitoring Plan that was submitted with the October 30, 2005 Title V Air Permit Renewal Application is summarized below.

2 CAM Program:

2.1 – Primary Indicator and Measurement Methodology

Visible emissions (VE) will be used as the indicator of satisfactory ESP operation. VE will be measured using a continuous Opacity Monitoring System (COMS) located in the ductwork serving Boiler 1.

2.2 – Indicator Range for Acceptable ESP Performance

2.2.1 – VE less than 7.5% opacity (1-hr block average) and

2.2.2 – VE less than 20% opacity (6-minute average), except for one six-minute period not to exceed 27%.

2.3 - Exceedance of either indicator range above shall be considered an operating excursion.

2.2.4 - VE in excess of either indicator range will prompt corrective actions, beginning with an evaluation of the opacity data and other operational data to determine the action required. Subsequent action may include some or all of the following activities: investigation of boiler operation and firing conditions, induced draft fan operating conditions, voltage and current at ESP, flyash system operating condition and physical inspection of the flue gas ductwork.

2.3 – Data Representativeness, Quality Assurance and Quality Control Practices and Data Collection Procedures

2.3.1 - The COMS serving Boiler 1 meets the applicable 40CFR Part 60, Appendix B Performance Specification 1 criteria and provides data representative of this source. Ongoing QA/QC practices include daily calibrations and data review, weekly and quarterly instrument checks and preventive maintenance activities, and quarterly performance audits.

2.3.2 – The COMS are located after the ESP and which follows the selective catalytic reduction (SCR) but is before the flue gas desulfurization (FGD) system. The COMS is not located in the stack because of the high moisture content of the flue gas when it exits the FGD.

2.3.3 – Instantaneous and six-minute average opacity data

WHERE IS THE 1 HR OPACITY VALUE DISPLAYED AND RECORDED?



are displayed on a panel located in the main control room. COMS data are recorded and stored using a data acquisition system (DAS) consisting of a programmable logic controller (PLC) and Microsoft® Windows-based PC equipped with data acquisition and handling software. The software also generates quarterly excess emission reports for submission to the NYSDEC.

2.3.4 - The minimum data availability requirement for valid data collection for each averaging period, and the minimum data availability requirement for the averaging periods in the reporting period is 95% of the emission point's operating time [(40 CFR Part 64.6(c)(4)].

2.4. Secondary Indicator and Measurement Methodology

Although the flue gas desulfurization (FGD) was not designed or installed for PM control, part of the scrubber system, water injection and mist eliminators, significantly reduce PM emissions from the flue gas. The mechanism that mainly contributes to particulate control is water (slurry)-to-air contact and mist elimination. The mist eliminators prevent significant carryover of scrubber water to the atmosphere, where the water could have entrained particulate matter. As a product of these forces, the exhaust gas temperature from the ESP's is significantly lowered. The lowering of the temperature indicates operation as designed. To this end, Somerset will rely on exhaust stack temperature from the stack as an indicator that the scrubber is operating and controlling particulates.

2.5 – Indicator Range for Acceptable FGD

Performance

2.5.1 – Stack exhaust temperature no greater than 132 deg F, 1-hour block average

2.5.2 - Exceedance of the stack exhaust temperature indicator range above shall be considered an operating excursion.

2.5.3 – A stack exhaust temperature greater than the above value will prompt corrective actions, beginning with an evaluation of the temperature data and other operational data to determine the action required. Subsequent action may include some or all of the following activities: investigation of FGD module operating conditions, damper positioning, scrubber pump operation and physical inspection of the flue gas ductwork.

2.6 – Data Representativeness, Quality Assurance and Quality Control Practices and Data Collection Procedures for FGD System



2.6.1 – The stack exhaust temperature is continuously monitored and recorded within the CEMS DHAS.

3 – Data Monitoring –

3.1 - The minimum data availability requirement for valid data collection for each averaging period, and the minimum data availability requirement for the averaging periods in the reporting period is 95% of the emission point's operating time [(40 CFR Part 64.6(c)(4)].

3.2 - An excursion shall not be considered a violation of this permit.

4 – Data Reporting - In the semiannual compliance reports [due after the 2nd and 4th Quarters, as required by 6NYCRR 201-6.5(c)(3)(ii)], the permittee shall submit a report that:

4.1 - Summarizes the number, duration and cause of excursions and the corrective actions taken. If there are no excursions, that shall be stated.

4.2 - Summarizes the number, duration and cause for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks), and

4.3 - Reports the total Boiler 1 operating hours during the reporting period and the amount of time the emission point operated with an excursion, as a percentage of the operating hours.

5 - Quality Improvement Plan (QIP) - A QIP shall be developed and implemented when the combined excursions noted in items 2.2 and 2.5 above are more than 5% of the operating hours of Boiler 1 during any semi-annual reporting period. An exceedance of the 5% threshold shall be reported as a deviation in the semi-annual and annual compliance reports. The elements of a QIP are included the permit condition for citation 40 CFR 64.8. The QIP shall include a provision for a compliance stack test should the QIP fail to address or correct control device performance problems.

Parameter Monitored: PARTICULATES
Upper Permit Limit: 0.03 pounds per million Btus
Reference Test Method: EPA Method 5B
Monitoring Frequency: CONTINUOUS
Averaging Method: 1-HOUR AVERAGE
Reporting Requirements: SEMI-ANNUALLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 7/30/2011.
Subsequent reports are due every 6 calendar month(s).

Condition 63: Facility Subject to Title IV Acid Rain Regulations and Permitting



Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement:40 CFR Part 72

Item 63.1:

This Condition applies to Emission Unit: S-00001 Emission Point: 00001

Item 63.2:

This facility is subject to the Title IV Acid Rain Regulations found in 40 CFR Parts 72, 73, 75, 76, 77 and 78. The Acid Rain Permit is an attachment to this permit.

Condition 64: Compliance Certification

Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement:6 NYCRR 227-1.3 (a)

Item 64.1:

The Compliance Certification activity will be performed for:

Emission Unit: S-00002 Emission Point: 0001A

Regulated Contaminant(s):
CAS No: 0NY075-00-0 PARTICULATES

Item 64.2:

Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

- 1) No person shall operate a stationary combustion installation which exhibits greater than 20 percent opacity (six-minute average), except for one six-minute period per hour of not more than 27% opacity.
- 2) Observe the stack while it is at steady state operation once per day for visible emissions. This observation(s) must be conducted during daylight hours except during adverse weather conditions (fog, rain, or snow).
- 3) The results of each observation must be recorded in a bound logbook or other format acceptable to the Department. The following data must be recorded for each stack:
 - date and time of day,
 - observer's name,
 - identity of emission point,
 - weather conditions,
 - was a plume observed?

Inclement weather conditions shall be recorded for those



days when observations are prohibited. This logbook must be retained at the facility for five (5) years after the date of the last entry.

4) If any visible emissions (other than steam - see below) are observed on two consecutive oil firing days (the firing of other fuels in between days of firing oil does not count as an interruption in the consecutive days of firing oil), then an EPA Method 9 analysis (based upon a 6-minute mean) must be conducted within two (2) business days of such occurrence. The results of the Method 9 analysis must be recorded in the logbook. The Regional Air Pollution Control Engineer must be contacted within one (1) business day of performing the Method 9 analysis if the opacity standard is contravened. Upon notification, any corrective actions or future compliance schedules shall be presented to the Department for acceptance.

**** NOTE **** Steam plumes generally form after leaving the top of the stack (this is known as a detached plume). The distance between the stack and the beginning of the detached plume may vary. However, there is (normally) a distinctive distance between the plume and stack. Steam plumes are white in color and have a billowy consistency. Steam plumes dissipate within a short distance of the stack (the colder the air the longer the steam plume will last) and leave no dispersion trail downwind of the stack.

Parameter Monitored: OPACITY

Upper Permit Limit: 20 percent

Reference Test Method: EPA Method 9

Monitoring Frequency: DAILY

Averaging Method: 6-MINUTE AVERAGE (METHOD 9)

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY

Condition 65: Compliance Certification
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement: 6 NYCRR 227-2.4 (b) (1) (i)

Item 65.1:

The Compliance Certification activity will be performed for:

Emission Unit: S-00002

Emission Point: 0001A

Regulated Contaminant(s):

CAS No: 0NY210-00-0 OXIDES OF NITROGEN

Item 65.2:

Compliance Certification shall include the following monitoring:

New York State Department of Environmental Conservation

Permit ID: 9-2938-00003/00002

Facility DEC ID: 9293800003



Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

- 1.) The NOx Reasonably Available Control Technology (RACT) limit for the two auxiliary boilers is 0.30 lb/MMBtu until June 30, 2014. A lower NOx limit becomes effective on July 1, 2014 and is addressed in the permit condition for citation 6NYCRR Part 227-2.3.
- 2.) Using the AES Title I NOx RACT Compliance Plan, AES Somerset will demonstrate compliance with the above limit by meeting a system-wide daily (24-hour heat input weighted average) emission limit during the ozone season (May 1 through September 30).
- 3.) This system-wide averaging plan covers six AES utility stations and is allowed by 6NYCRR Part 227-2.5(b). The NOx RACT Compliance Plan is dated August 5, 1994 and titled "New York State Electric & Gas Corporation Title I NOx Compliance Plan." New York State Electric & Gas Corporation was the previous owner of these facilities. The plan is attached.
- 4.) These 195 mmBtu/hr boilers combust a blend of No. 1 (Kerosene) and No. 2 distillate fuels. They operate infrequently and do not have NOx continuous emission monitoring systems installed. The NOx emission rate of 0.30 lb/mmBtu that was in the station's Prevention of Significant Deterioration (PSD) permit application will be used for emission reporting purposes.
- 5.) A NOx RACT compliance report must be submitted within 30 days following the end of the calendar quarter.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2011.

Subsequent reports are due every 3 calendar month(s).

Condition 66: Compliance Certification
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable Federal Requirement: 40CFR 60.252(c), NSPS Subpart Y

Item 66.1:

The Compliance Certification activity will be performed for:

Emission Unit: S-00003

Item 66.2:

New York State Department of Environmental Conservation

Permit ID: 9-2938-00003/00002

Facility DEC ID: 9293800003



Compliance Certification shall include the following monitoring:

Monitoring Type: MONITORING OF PROCESS OR CONTROL
DEVICE PARAMETERS AS SURROGATE

Monitoring Description:

An owner or operator subject to the provisions of this subpart shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal, gases which exhibit 20 percent opacity or greater. Compliance with this requirement shall be determined by the source owner conducting a daily survey (non-method 9 observation, non-quantitative opacity reading) of visible emissions from these sources. If any atypical visible emissions are identified, corrective action is required as appropriate for the source. If corrective action does not abate the emissions, a Method 9 observation shall be performed to determine compliance and the results recorded in a log book. The facility owner/operator must contact the Regional Air Pollution Control Engineer within one business day of performing the Method 9 observation if the opacity standard is exceeded. Records of daily survey of visible emissions must be retained for five years.

Parameter Monitored: OPACITY

Upper Permit Limit: 20 percent

Reference Test Method: 40 CFR 60 APP A, M9

Monitoring Frequency: DAILY

Averaging Method: 6-MINUTE AVERAGE (METHOD 9)

Reporting Requirements: UPON REQUEST BY REGULATORY AGENCY



STATE ONLY ENFORCEABLE CONDITIONS
****** Facility Level ******

NOTIFICATION OF GENERAL PERMITTEE OBLIGATIONS

This section contains terms and conditions which are not federally enforceable. Permittees may also have other obligations under regulations of general applicability

Item A: General Provisions for State Enforceable Permit Terms and Condition - 6 NYCRR Part 201-5

Any person who owns and/or operates stationary sources shall operate and maintain all emission units and any required emission control devices in compliance with all applicable Parts of this Chapter and existing laws, and shall operate the facility in accordance with all criteria, emission limits, terms, conditions, and standards in this permit. Failure of such person to properly operate and maintain the effectiveness of such emission units and emission control devices may be sufficient reason for the Department to revoke or deny a permit.

The owner or operator of the permitted facility must maintain all required records on-site for a period of five years and make them available to representatives of the Department upon request. Department representatives must be granted access to any facility regulated by this Subpart, during normal operating hours, for the purpose of determining compliance with this and any other state and federal air pollution control requirements, regulations or law.

STATE ONLY APPLICABLE REQUIREMENTS

The following conditions are state applicable requirements and are not subject to compliance certification requirements unless otherwise noted or required under 6 NYCRR Part 201.

Condition 67: Contaminant List
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable State Requirement:ECL 19-0301

Item 67.1:

Emissions of the following contaminants are subject to contaminant specific requirements in this permit(emission limits, control requirements or compliance monitoring conditions).

CAS No: 000124-38-9
Name: CARBON DIOXIDE



CAS No: 000630-08-0
Name: CARBON MONOXIDE

CAS No: 007439-97-6
Name: MERCURY

CAS No: 007446-09-5
Name: SULFUR DIOXIDE

CAS No: 0NY075-00-0
Name: PARTICULATES

CAS No: 0NY210-00-0
Name: OXIDES OF NITROGEN

Condition 68: Unavoidable noncompliance and violations
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable State Requirement:6 NYCRR 201-1.4

Item 68.1:

At the discretion of the commissioner a violation of any applicable emission standard for necessary scheduled equipment maintenance, start-up/shutdown conditions and malfunctions or upsets may be excused if such violations are unavoidable. The following actions and recordkeeping and reporting requirements must be adhered to in such circumstances.

(a) The facility owner and/or operator shall compile and maintain records of all equipment maintenance or start-up/shutdown activities when they can be expected to result in an exceedance of any applicable emission standard, and shall submit a report of such activities to the commissioner's representative when requested to do so in writing or when so required by a condition of a permit issued for the corresponding air contamination source except where conditions elsewhere in this permit which contain more stringent reporting and notification provisions for an applicable requirement, in which case they supercede those stated here. Such reports shall describe why the violation was unavoidable and shall include the time, frequency and duration of the maintenance and/or start-up/shutdown activities and the identification of air contaminants, and the estimated emission rates. If a facility owner and/or operator is subject to continuous stack monitoring and quarterly reporting requirements, he need not submit reports for equipment maintenance or start-up/shutdown for the facility to the commissioner's representative.

(b) In the event that emissions of air contaminants in excess of any emission standard in 6 NYCRR Chapter III Subchapter A occur due to a malfunction, the facility owner and/or operator shall report such malfunction by telephone to the commissioner's representative as soon as possible during normal working hours, but in any event not later than two working days after becoming aware that the malfunction occurred. Within 30 days thereafter, when requested in writing by the commissioner's representative, the facility owner and/or operator shall submit a written report to the commissioner's representative describing the malfunction, the corrective action taken, identification of air contaminants, and an estimate of the emission rates. These reporting requirements are superceded by conditions elsewhere in this permit which contain reporting and notification provisions for applicable requirements more stringent than those above.



(c) The Department may also require the owner and/or operator to include in reports described under (a) and (b) above an estimate of the maximum ground level concentration of each air contaminant emitted and the effect of such emissions depending on the deviation of the malfunction and the air contaminants emitted.

(d) In the event of maintenance, start-up/shutdown or malfunction conditions which result in emissions exceeding any applicable emission standard, the facility owner and/or operator shall take appropriate action to prevent emissions which will result in contravention of any applicable ambient air quality standard. Reasonably available control technology, as determined by the commissioner, shall be applied during any maintenance, start-up/shutdown or malfunction condition subject to this paragraph.

(e) In order to have a violation of a federal regulation (such as a new source performance standard or national emissions standard for hazardous air pollutants) excused, the specific federal regulation must provide for an affirmative defense during start-up, shutdowns, malfunctions or upsets.

Condition 69: Air pollution prohibited
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable State Requirement:6 NYCRR 211.2

Item 69.1:

No person shall cause or allow emissions of air contaminants to the outdoor atmosphere of such quantity, characteristic or duration which are injurious to human, plant or animal life or to property, or which unreasonably interfere with the comfortable enjoyment of life or property. Notwithstanding the existence of specific air quality standards or emission limits, this prohibition applies, but is not limited to, any particulate, fume, gas, mist, odor, smoke, vapor, pollen, toxic or deleterious emission, either alone or in combination with others.

Condition 70: Compliance Demonstration
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable State Requirement:6 NYCRR 225-1.2 (a) (2)

Item 70.1:

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):

CAS No: 007446-09-5 SULFUR DIOXIDE

Item 70.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: WORK PRACTICE INVOLVING SPECIFIC OPERATIONS

Monitoring Description:

1) No person shall sell, offer for sale, purchase or use any distillate oil fuel which contains greater than 1.50 percent sulfur by weight.

2) This limitation is more restrictive than the 2.00

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Facility DEC ID: 9293800003



percent sulfur by weight limit from 6NYCRR Part 225-1.2(c) that is part of the State Implementation Plan (SIP) and is in the federal side of this permit. The 1.50 percent sulfur by weight limit from 6NYCRR Part 225-1.2(d) is not in the SIP.

3) The facility shall have available for Department review, upon request, the sulfur content of each batch of oil delivered to the site.

4) Quarterly, the facility shall report the cause of any exceedance of the sulfur in fuel limitation of this condition, and what corrective actions were taken to address the situation and prevent a reoccurrence. If there is no exceedance during the reporting period state so.

Work Practice Type: PARAMETER OF PROCESS MATERIAL
Process Material: DISTILLATES - NUMBER 1 AND NUMBER 2 OIL
Parameter Monitored: SULFUR CONTENT
Upper Permit Limit: 1.50 percent by weight
Reference Test Method: ASTM D 4294
Monitoring Frequency: PER DELIVERY
Averaging Method: MAXIMUM - NOT TO BE EXCEEDED AT ANY TIME (INSTANTANEOUS/DISCRETE OR GRAB)
Reporting Requirements: QUARTERLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 7/30/2011.
Subsequent reports are due every 3 calendar month(s).

Condition 71: Continuous Opacity Monitor Required
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable State Requirement: 6 NYCRR 227-1.4 (a)

Item 71.1:

This Condition applies to:

Emission Unit: S00001 Emission Point: 00001

Item 71.2: Any person who owns a stationary combustion installation (excluding gas turbines), with a total maximum heat input capacity exceeding 250 million Btu per hour shall install, operate in accordance with manufacturer's instructions, and properly maintain, accurate instruments satisfying the criteria in appendix B of title 40, part 60 of the Code of Federal Regulations, or approved by the commissioner on an individual case basis, for continuously monitoring and recording opacity, and when sulfur dioxide continuous monitoring is required by Part 225 of this Title, for continuously monitoring and recording either the percent oxygen or carbon dioxide in the flue gases from such installations at all times that the combustion installation is in service. Where gas is the only fuel burned, monitoring and recording of opacity is not required.

Condition 72: Compliance Demonstration



Effective between the dates of 04/26/2011 and 04/25/2016

Applicable State Requirement:6 NYCRR 242-1.5

Item 72.1:

The Compliance Demonstration activity will be performed for the Facility.

Item 72.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The owners and operators of the CO2 budget source and each CO2 budget unit at the source shall keep on site at the source each of the following documents for a period of 10 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 10 years, in writing by the department.

(i) The account certificate of representation for the CO2 authorized account representative for the source and each CO2 budget unit at the source and all documents that demonstrate the truth of the statements in the account certificate of representation, in accordance with 6 NYCRR Part 242-2.4, provided that the certificate and documents shall be retained on site at the source beyond such 10-year period until such documents are superseded because of the submission of a new account certificate of representation.

(ii) All emissions monitoring information, in accordance with Subpart 242-8 and 40 CFR 75.57.

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CO2 Budget Trading Program.

(iv) Copies of all documents used to complete a CO2 budget permit application and any other submission under the CO2 Budget Trading Program or to demonstrate compliance with the requirements of the CO2 Budget Trading Program.

The CO2 authorized account representative of a CO2 budget source and each CO2 budget unit at the source shall submit the reports and compliance certifications required under the CO2 Budget Trading Program, including those under Subpart 242-4.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: SEMI-ANNUALLY (CALENDAR)

Reports due 0 days after the reporting period.



The initial report is due 6/30/2011.
Subsequent reports are due every 6 calendar month(s).

Condition 73: Compliance Demonstration
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable State Requirement:6 NYCRR Subpart 242-4

Item 73.1:

The Compliance Demonstration activity will be performed for the Facility.

Regulated Contaminant(s):
CAS No: 000124-38-9 CARBON DIOXIDE

Item 73.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Annual Compliance Certification Report:

(a) For each control period in which a CO2 budget source is subject to the CO2 requirements of subdivision 242-1.5(c) of this Part, CO2 authorized account representative of the source shall submit to the department by March 1st following the relevant control period, a compliance certification report. The control period is a three-calendar-year time period.

(b) The compliance certification report shall include the following elements:

(1) identification of the source and each CO2 budget unit at the source;

(2) as an option, the serial numbers of the CO2 allowances that are to be deducted from the source's compliance account under section 242-6.5 of this Part for the control period, including the serial numbers of any CO2 offset allowances that are to be deducted subject to the limitations of section 242-6.5(a)(3) of this Part; and

(3) the compliance certification under subdivision (c) of this section (below).

(c) In the compliance certification report the CO2 authorized account representative shall certify, based on reasonable inquiry of those persons with primary responsibility for operating the source and the CO2 budget units at the source in compliance with the CO2 Budget Trading Program, whether the source and each CO2 budget



unit at the source for which the compliance certification is submitted was operated during the calendar years covered by the report in compliance with the requirements of the CO2 Budget Trading Program, including:

(1) whether the source was operated in compliance with the CO2 requirements of section 242-1.5(c) of this Part;

(2) 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 attribute CO2 emissions to the unit, in accordance with Subpart 242-8 of this Part;

(3) whether all the CO2 emissions from the units at the source were monitored or accounted for through the missing data procedures and reported in the quarterly monitoring reports, including whether conditional data were reported in the quarterly reports in accordance with Subpart 242-8 of this Part. If conditional data were reported, the owner or operator shall indicate whether the status of all conditional data has been resolved and all necessary quarterly report resubmissions have been made;

(4) whether the facts that form the basis for certification under Subpart 242-8 of each monitor at each unit at the source, or for using an excepted monitoring method or alternative monitoring method approved under Subpart 242-8 of this Part, if any, have changed; and

(5) if a change is required to be reported under paragraph (c)(4) above, specify the nature of the change, the reason for the change, when the change occurred, and how the unit's compliance status was determined subsequent to the change, including what method was used to determine emissions when a change mandated the need for monitor recertification.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 74: Compliance Demonstration
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable State Requirement:6 NYCRR 242-8.5

Item 74.1:

The Compliance Demonstration activity will be performed for the facility:



The Compliance Demonstration applies to:

Emission Unit: S-00001 Emission Point: 00001

Regulated Contaminant(s):
CAS No: 000124-38-9 CARBON DIOXIDE

Item 74.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Recordkeeping and Reporting (6NYCRR Part 242-8.5)

(a) General provisions. The CO₂ authorized account representative shall comply with all recordkeeping and reporting requirements in this section, the applicable record keeping and reporting requirements under 40 CFR 75.73 and with the requirements of section 242-2.1(e) of this Part.

(b) Monitoring plans. The owner or operator of a CO₂ budget unit shall submit a monitoring plan in the manner prescribed in 40 CFR 75.62.

(c) Certification applications. The CO₂ authorized account representative shall submit an application to the department within 45 days after completing all CO₂ monitoring system initial certification or recertification tests required under section 242-8.2 of this Subpart including the information required under 40 CFR 75.63 and 40 CFR 75.53(e) and (f).

(d) Quarterly reports. The CO₂ authorized account representative shall submit quarterly reports, as follows:

(1) The CO₂ authorized account representative shall report the CO₂ mass emissions data and heat input data for the CO₂ budget unit, in an electronic format prescribed by the administrator unless otherwise prescribed by the department for each calendar quarter.

(2) The CO₂ authorized account representative shall submit each quarterly report to the department or its agent within 30 days following the end of the calendar quarter covered by the report. Quarterly reports shall be submitted in the manner specified in subpart H of 40 CFR part 75 and 40 CFR 75.64. Quarterly reports shall be submitted for each CO₂ budget unit (or group of units using a common stack), and shall include all of the data and information required in subpart G of 40 CFR part 75, except for opacity, NO_x, and SO₂ provisions.

(3) The CO₂ authorized account representative shall



submit to the department or its agent a compliance certification in support of each quarterly report based on reasonable inquiry of those persons with primary responsibility for ensuring that all of the unit's emissions are correctly and fully monitored. The certification shall state that:

(i) the monitoring data submitted were recorded in accordance with the applicable requirements of this Subpart and 40 CFR part 75, including the quality assurance procedures and specifications;

(ii) for a unit with add-on CO₂ 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/quality control program under appendix B of 40 CFR part 75 and the substitute values do not systematically underestimate CO₂ emissions; and

(iii) the CO₂ concentration values substituted for missing data under Subpart D of 40 CFR part 75 do not systematically underestimate CO₂ emissions.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2011.

Subsequent reports are due every 3 calendar month(s).

Condition 76: Compliance Demonstration
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable State Requirement: 6 NYCRR 246.5 (b)

Item 76.1:

The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: S-00001

Emission Point: 00001

Regulated Contaminant(s):

CAS No: 007439-97-6 MERCURY

Item 76.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

The facility-wide emission limit below is from Table 1 of 6NYCRR Part 246.5(a) and represents the allowable mercury emissions for each Mercury Reduction Program (MRP) facility for the control periods in 2010 through 2014.

New York State Department of Environmental Conservation

Permit ID: 9-2938-00003/00002

Facility DEC ID: 9293800003



The sum of mass mercury emissions (in pounds) from each applicable existing MRP unit at a MRP facility identified in Table 1 shall not exceed the facility-wide mercury emission limitation (in pounds per year) set forth in Table 1.

Upper Permit Limit: 151.0 pounds
Monitoring Frequency: CONTINUOUS
Averaging Method: 12-month total, rolled monthly
Reporting Requirements: QUARTERLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 7/30/2011.
Subsequent reports are due every 3 calendar month(s).

Condition 75: Compliance Demonstration
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable State Requirement:6 NYCRR 246.6 (b)

Item 75.1:

The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: S-00001 Emission Point: 00001

Regulated Contaminant(s):
CAS No: 007439-97-6 MERCURY

Item 75.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: CONTINUOUS EMISSION MONITORING (CEM)

Monitoring Description:

Effective January 1, 2015, each existing MRP facility shall not exceed the emission limit of 0.6 pounds mercury per trillion Btu (0.6 lb Hg/TBtu).

Upper Permit Limit: 0.6 pounds per trillion British thermal units

Monitoring Frequency: CONTINUOUS
Averaging Method: 30 DAY ROLLING AVERAGE, ROLLED DAILY
Reporting Requirements: QUARTERLY (CALENDAR)
Reports due 30 days after the reporting period.
The initial report is due 7/30/2011.
Subsequent reports are due every 3 calendar month(s).

Condition 77: Requirements for Installation, Certification and Data Accounting
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable State Requirement:6 NYCRR 246.7 (b) (1)



Applicable State Requirement:6 NYCRR 246.8 (c) (2)

Item 79.1:

This Condition applies to:

Emission Unit: S00001 Emission Point: 00001

Item 79.2:

Whenever the owner or operator makes a replacement, modification, or change in any certified continuous emission monitoring system under 40 CFR 75.15, that may significantly affect the ability of the system to accurately measure or record Hg mass emissions or heat input rate or to meet the quality-assurance and quality-control requirements of 40 CFR 75.21 or 40 CFR 75 Appendix B, the owner or operator shall recertify the monitoring system in accordance with 40 CFR 75.20.

Whenever the owner or operator makes a replacement, modification, or change to the flue gas handling system or the unit's operation that may significantly change the stack flow or concentration profile, the owner or operator shall recertify each continuous emission monitoring system under 40 CFR 75.15, whose accuracy is potentially affected by the change, in accordance with 40 CFR 75.20. Examples of changes to a continuous emission monitoring system that require recertification include replacement of the analyzer, complete replacement of an existing continuous emission monitoring system, or change in location or orientation of the sampling probe or site.

Condition 80: Compliance Demonstration
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable State Requirement:6 NYCRR 246.8 (c) (3)

Item 80.1:

The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: S-00001 Emission Point: 00001

Regulated Contaminant(s):
CAS No: 007439-97-6 MERCURY

Item 80.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Notification of certification. The owner or operator of the Mercury Reduction Program (MRP) facility shall submit to the department, the EPA Region 2 Regional Office, and the Administrator written notice of the dates of certification testing, in accordance with section 246.10 which refers to 40 CFR Part 75.61. The notifications shall be made not later than 21 days prior to the first



scheduled day of certification or recertification testing as required by 75.61(a)(1)(i).

Certification application. The owner or operator of a MRP facility shall submit to the department a certification application for each monitoring system. A complete certification application shall include the information specified in 40 CFR 75.63 and shall be submitted to the department within 45 days after completing all initial certification or recertification tests required under section 246.8 of this Part, including the information required under 40 CFR 75.63.

Provisional certification date. The provisional certification date for a monitoring system shall be determined in accordance with 40 CFR 75.20(a)(3). A provisionally certified monitoring system may be used under the Mercury Reduction Program for a period not to exceed 120 days after receipt by the department of the complete certification application for the monitoring system under subparagraph 246.8(c)(3)(ii). Data measured and recorded by the provisionally certified monitoring system, in accordance with the requirements of 40 CFR Part 75, will be considered valid quality-assured data (retroactive to the date and time of provisional certification), provided that the department does not invalidate the provisional certification by issuing a notice of disapproval within 120 days of the date of receipt of the complete certification application by the department.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

Condition 81: Missing Data Procedures and Out of Control Periods for CEMs

Effective between the dates of 04/26/2011 and 04/25/2016

Applicable State Requirement: 6 NYCRR 246.9 (a)

Item 81.1:

This Condition applies to:

Emission Unit: S00001 Emission Point: 00001

Item 81.2:

Whenever 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 missing data procedures in 40 CFR 75 Subpart D.



Condition 82: Compliance Demonstration
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable State Requirement:6 NYCRR 246.11 (a)

Item 82.1:

The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: S-00001 Emission Point: 00001

Regulated Contaminant(s):
CAS No: 007439-97-6 MERCURY

Item 82.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Owners and operators of a Mercury Reduction Program (MRP) facility shall comply with all record keeping requirements in 6NYCRR Part 246.11 and the applicable record keeping requirements of 40 CFR 75.84(a) through (c).

Monitoring Frequency: CONTINUOUS

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2011.

Subsequent reports are due every 3 calendar month(s).

Condition 83: Compliance Demonstration
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable State Requirement:6 NYCRR 246.11 (b)

Item 83.1:

The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: S-00001 Emission Point: 00001

Regulated Contaminant(s):
CAS No: 007439-97-6 MERCURY

Item 83.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Owners and operators of a Mercury Reduction Program (MRP) facility shall comply with all reporting requirements in 6NYCRR Part 246.11 and the applicable reporting



requirements of 40 CFR 75.84(d) through (f)

In absence of the US EPA Administrator accepting data and reports for mercury emissions, CEMs and Data Acquisition Handling Systems, electronic submittal of data is not required until an electronic system is created and maintained by the US EPA. Hourly mercury mass emission data and heat input data generated by CEM units and would have been submitted to the USEPA electronically shall be kept on site until the US EPA Administrator has a method to accept this data.

Note: The Department recognizes the July 1, 2006 Edition of 40 CFR Part 75.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2011.

Subsequent reports are due every 3 calendar month(s).

Condition 84: Compliance Demonstration
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable State Requirement: 6 NYCRR 246.11 (c)

Item 84.1:

The Compliance Demonstration activity will be performed for the facility:

The Compliance Demonstration applies to:

Emission Unit: S-00001

Emission Point: 00001

Regulated Contaminant(s):

CAS No: 007439-97-6

MERCURY

Item 84.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The owner or operator of a Mercury Reduction Program (MRP) facility shall submit an application to the department within 45 days after completing all initial certification or recertification tests required under section 246.8 of this Part, including the information required under 40 CFR 75.63.

Monitoring Frequency: AS REQUIRED - SEE PERMIT MONITORING DESCRIPTION

Reporting Requirements: AS REQUIRED - SEE MONITORING DESCRIPTION

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Condition 85: Compliance Demonstration
Effective between the dates of 04/26/2011 and 04/25/2016

Applicable State Requirement: 6 NYCRR 246.11 (d)

Item 85.1:

The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: S-00001

Emission Point: 00001

Regulated Contaminant(s):

CAS No: 007439-97-6 MERCURY

Item 85.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

Owners or operators of a Mercury Reduction Program (MRP) facility that commences commercial operation before July 1, 2008 shall submit quarterly reports, as follows:

(1) Report the mercury mass emissions data and heat input data for the MRP unit, in an electronic quarterly report in a format prescribed by the department and the Administrator, for each calendar quarter beginning with January 1, 2009 through March 31, 2009.

(2) Submit each quarterly report to the department and the Administrator within 30 days following the end of the calendar quarter covered by the report. Quarterly reports shall be submitted in the manner specified in 40 CFR 75.84(f).

(3) For MRP units that are also subject to an Acid Rain emissions limitation or the Clean Air Interstate Rule (CAIR) NO_x Annual Trading Program, CAIR SO₂ Trading Program, or CAIR NO_x Ozone Season Trading Program, quarterly reports shall include the applicable data and information required by 40 CFR 75 Subparts F through H as applicable, in addition to the mercury mass emission data, heat input data, and other information required by sections 246.7 through 246.13 of this Part.

Monitoring Frequency: CONTINUOUS

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2011.

Subsequent reports are due every 3 calendar month(s).

Condition 86: Compliance Demonstration



Effective between the dates of 04/26/2011 and 04/25/2016

Applicable State Requirement: 6 NYCRR 246.11 (e)

Item 86.1:

The Compliance Demonstration activity will be performed for the facility:
The Compliance Demonstration applies to:

Emission Unit: S-00001 Emission Point: 00001

Regulated Contaminant(s):
CAS No: 007439-97-6 MERCURY

Item 86.2:

Compliance Demonstration shall include the following monitoring:

Monitoring Type: RECORD KEEPING/MAINTENANCE PROCEDURES

Monitoring Description:

The owners or operators of a Mercury Reduction Program (MRP) facility shall submit to the department and the Administrator, a compliance certification in support of each quarterly report based on reasonable inquiry of those persons with primary responsibility for ensuring that all of the unit's emissions are correctly and fully monitored. The certification shall state that:

(1) The monitoring data submitted were recorded in accordance with the applicable requirements of sections 246.7 through 246.13 of 6NYCRR Part 246, and 40 CFR Part 75, including the quality assurance procedures and specifications; and

(2) data are substituted in accordance with 40 CFR 75.34(a)(1) for all hours where mercury data are substituted for a unit with add-on mercury emission controls.

(i) (a) The mercury add-on emission controls were operating within the range of parameters listed in the quality assurance/quality control program under 40 CFR 75 Appendix B; or

(b) With regard to a flue gas desulfurization system or a selective catalytic reduction system, quality-assured SO₂ emission data recorded in accordance with 40 CFR Part 75 document that the flue gas desulfurization system was operating properly, or quality-assured NO_x emission data recorded in accordance with 40 CFR Part 75 document that the selective catalytic reduction system, was operating properly, as applicable, and

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(ii) The substitute data values do not systematically underestimate mercury emissions.

Reporting Requirements: QUARTERLY (CALENDAR)

Reports due 30 days after the reporting period.

The initial report is due 7/30/2011.

Subsequent reports are due every 3 calendar month(s).

