GOVERNMENT OF PUERTO RICO / OFFICE OF THE GOVERNOR
TITLE V OPERATING PERMIT
AIR QUALITY AREA
ENVIRONMENTAL QUALITY BOARD

Permit Number:	PFE-TV-4911-30-0703-1130
Initial Permit Application Received:	July 16, 2003[1]
Issue and/or Effectiveness Date:	November 15, 2011
Expiration Date:	November 15, 2016

In accordance with the provisions of Part VI of the Regulation for the Control of Atmospheric Pollution (RCAP) and the Code of Federal Regulations, Title 40, Part 70

AES PUERTO RICO COGENERATION PLANT
GUAYAMA, PUERTO RICO

hereinafter referred to as **AESPR** or **the permittee**, is authorized to operate a stationary source of air pollutants limited to the emission units and conditions described in this permit. Until such time as this permit expires, is modified or revoked, AESPR is allowed to discharge air pollutants from those processes and activities directly related to or associated with air pollutant sources in accordance with the requirements, limitations and conditions of this permit.

The conditions in this permit are federally and state enforceable. Requirements which are only state enforceable, are identified as such in the permit. A copy of this permit shall be kept on-site at the above-mentioned facility at all times.

[1] AESPR submitted several amendments to the initial application. The last amendment was received on April 18, 2006.

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Section I: General Information

A. Facility Information

Name:	**AES Puerto Rico Cogeneration Plant (AES Puerto Rico, LP)**	
Mailing Address:	P. O. Box 1890	
City: Guayama	State: PR	Zip Code: 00785
Plant Physical Address:	Road #3 km. 142 Bo. Jobos Guayama, PR 00784	
Responsible Officer:	Allan B. Dyer President	Telephone: (787) 866-8117 x-2239
Facility Contact Person:	Allan B. Dyer President	Telephone: (787) 866-8117 x-2239
Primary SIC Code:	4911 (Electric Generation Services) 221112 (NAICS)	

B. Facility Description

AES Puerto Rico Cogeneration Plant (AESPR) is a cogeneration power plant that produces approximately 454 MW of net electricity which is sold to the Puerto Rico Electric Power Authority (PREPA). In addition, the facility commercially produces approximately 290,000 pounds per hour of pressurized steam for industrial processes of industrial clients in the area. AESPR also produces fly ash, bed ash, and a manufactured aggregate based on these, which has commercial uses.

The main process emission units consist of two bituminous coal-fired circulating fluidized bed boilers (CFB) with cyclones (EU-1 and EU-2), which supply superheated steam to two extraction/ condensing turbines to drive electric generators. The two boilers have a combined maximum heat input rate of 4,922.7 MMBtu/hr. The emissions are controlled through the use of the CFB boilers (CD-1-1 & CD-2-1) and Circulating Dry Scrubber (CD-1-3 & CD-2-3) designs with limestone and lime injection, respectively, for SOx control, a dry electrostatic precipitator (CD-1-4 & CD-2-4) for PM control, and a selective non-catalytic reduction system (SNCR) using urea (CD-1-2 & CD-2-2) for additional NOx control. The boilers also use low sulfur coal (1% wt or less). No. 2 oil will be used as startup fuel. The CFB boilers have two individual stacks with Continuous Emissions Monitoring System (CEMS) for NOx, SOx and CO and Continuous Opacity Emissions Monitoring System (COMS). AESPR employs Best Available Control Technology (BACT) to control emissions from the plant.

The steam produced in the CFB boilers is transferred to the turbine to produce electricity. The steam is condensed using cooling water that is recirculated through a wet cooling tower (EU-4), that use drift eliminators (CD-4-1) to reduce drift of the circulating water flow. The plant has a coal storage area (EU-12), two coal crushers (EU-13), eight coal silos (EU-14), two lime silos and piping (EU-18). The coal (EU-10C) and limestone (EU-10L) are transferred by conveyors from the AESPR dock area to the main plant, and within the facility. The facility has emergency and startup equipment consisting of one fire water pump (EU-8) using diesel, one diesel fueled emergency generator (EU-7), and a diesel fueled boiler feed water pump (EU-9) and respective diesel storage tanks (EU-8-1, EU-7-1 & EU-9-1). The plant has an aggregate manufacturing process (EU-20) and handling equipment, and dry ash silos (EU-19).

The fugitive emissions are mainly generated from the coal, limestone and aggregate handling system and fuel storage tanks. Materials handling fugitive emissions are controlled using enclosed conveyors, dust collectors and dust suppression systems using water sprays.

AESPR is classified as a major stationary source because it has the potential to emit more than 100 ton/year of PM_{10}, SO_2, NOx, and CO. It is also a major source for hazardous air pollutants (HAPs) because it has the potential to emit more than 10 ton/year of hydrochloric acid (HCl) and more than 25 tons/year of a combination of HAPs.

AESPR is subject to the Regulations for the Control of Atmospheric Pollution (RCAP), to the Standards of Performance for Electric Utility Steam Generating Units for which construction is commenced after September 18, 1978 (40 CFR Part 60, Subpart Da), to the Standards of Performance for Coal Preparation Plants (40 CFR Part 60 Subpart Y) and to the Standard of Performance for Non-Metallic Mineral Processing Plants (40 CFR Part 60 Subpart OOO). Also it is subject to the Prevention of Significant Deterioration (PSD) standards for oxides of nitrogen, sulfur dioxide, carbon monoxide, particulate matter, particulate matter less than 10 microns (PM_{10}), fluorides and sulfuric acid mist, volatile organic compounds (VOC), and fugitive dust emissions.

The applicable requirements specific to all emission units are included in section V of this permit.

The emission units are described next.

Section II - Emission Units Description[2]

The emission units regulated by this permit are the following:

Emission Unit/Emission Point	Description	Control Devices[3],[4]
EU-1/EP-1 **EU-2**/EP-2	Coal-fired circulating fluidized bed boilers, Boiler No. 1 and Boiler No. 2. Each boiler has a maximum heat input capacity of 2,461.35 MMBtu/hr. Limestone is injected into the furnace to control SO_2 emissions. NOx emissions are controlled in the furnaces by low combustion temperature and staged combustion. A non-selective catalytic reduction system is also used to control NOx emissions by injecting urea in the upper section of the furnace. A circulating dry scrubber provides additional SO_2 control and control of other pollutants. The final emission control device is an electrostatic precipitator for control of PM and PM_{10} emissions.	CD-1-1, CD-1-2, CD-1-3 and CD-1-4 CD-2-1, CD-2-2, CD-2-3 and CD-2-4
EU-3/EP-3	Limestone crushing and drying The emission source consists of the limestone processing building. Limestone is processed by primary crushing, drying, screening, and secondary crushing. All the processing equipment is completely sealed and is located within a building. Limestone from the primary crushing and grinding steps is collected by a fabric filter. Limestone from the screening and the secondary crushing steps is collected by a second fabric filter. The exhaust gases from the two fabric filters are discharged through a common stack on top of the building. Propane is burned in the dryer.	CD-3-1 and CD-3-2

[2] This section represents the configuration of the emission units with their corresponding control equipment (or control technique) at the time of the permit application. AESPR shall consult EQB in writing, prior to making any change in the equipment configuration and obtain the necessary permits, if applicable, according with applicable rules and regulations.
[3] See Appendix II for Control Devices Descriptions.
[4] This column represents emission control techniques for fugitive emissions. Refer to Appendix III for the specific description of the fugitive emissions and their corresponding control technique.

Emission Unit/Emission Point	Description	Control Devices[3],[4]
EU-4/EP-4	Cooling Tower Water is recirculated through the cooling tower at a maximum rate of 225,000 gpm. A drift eliminator controls cooling tower drift.	CD-4-1
EU-5/EP-5	Startup distillate fuel oil storage tank (150,000 gal) - Used to store low sulfur distillate oil (≤0.05%wt sulfur) for startup of the CFB Boilers.	None
EU-6/EP-6	Mobile equipment fuel tank 2,000-gallon tank used to store diesel fuel used by mobile equipment.	None
EU-7/EP-7	Diesel engine for emergency power generation (500 kW). - Consumes up to 40.2 gal/hr of diesel.	None
EU-7-1/EP-7-1	700-gallon fuel tank for diesel powered emergency generator.	None
EU-8/EP-8	Diesel powered firewater pump. (311 hp)	None
EU-8-1/EP-8-1	300-gallon fuel tank for diesel powered firewater pump.	None
EU-9/EP-9	Diesel powered emergency boiler feedwater pump. (430 hp)	None
EU-9-1/EP-9-1	200-gallon fuel tank for emergency boiler feedwater pump.	None

Emission Unit/Emission Point	Description	Control Devices[3],[4]
EU-10C/ EF-10A1, EF-10A2, EF-10B1, EF-10B2, EF-10C1, EF-10C2, EF-10E1, EF-10F, EF-10G1, EF-10G2, EF-10H1, EF-10H2	Conveyors, transfer houses and associated equipment are used to unload coal from ships and transport coal from ships to storage.	CD-10A1, CD-10B1, CD-10B2, CD-10C1, CD-10C2, CD-10E1, CD-10F, CD-10G1, CD-10G2, CD-10H1, CD-10H2
EU-10L/ EF-10A1, EF-10A2, EF-10B1, EF-10B2, EF-10C1, EF-10C2, EF-10E1, EF-10E7, EF-10F, EF-10G1, EF-10G2, EF-10H1, EF-10I, EF-10J	Conveyors, transfer houses and associated equipment are used to unload limestone from ships and to transport limestone from ships to storage. The normal operating scenario consists of receiving limestone from ships and transport to storage by conveyors.	CD-10A1, CD-10B1, CD-10B2, CD-10C1, CD-10C2, CD-10E1, CD-E7, CD-10F, CD-10G1, CD-10G2, CD-10H1, CDCD10I, CD10J
EU-10A/ EF-10C1, EF-10C2, EF-10E1, EF-10F, EF-10G3, EF-10J1, EF-10J2, EF-10J3, EF-10J5, EF-10J6, EF-10J7, EF-10J8, EF-10K1, EF-10K2, EF-10L, EF-10M1, EF-10M2	Conveyors, transfer houses, and associated equipment are used to transport ash/aggregate from the aggregate processing area to ships. The normal operating scenario consists of shipment of ash/aggregate by ship.	CD-10C1, CD-10C2, CD-10E1, CD-10F, CD-10G3, CD-10J1, CD-10J2, CD-10J3, CD-10J5, CD-10J6, CD-10J7, CD-10J8, CD-10K1 CD-10K2, CD-10L, CD-M1, CD-10M2
EU-10A-1/ EF-10J9, EF-10J10,EF-10J11, EF-10J12, EF-10J13	Transportation of ash/aggregate by truck from the ash/aggregate yard or storage area. (AOS-1)	CD-10J9, CD-10J10, CD-10J11, CD-10J12, CD-10J13
EU-10A-2/EF-10J14, EF-10J15	Transport of ash/aggregate by truck from the ash storage silos. (AOS-4)	CD-10J14, CD-10J15
EU-11/ EF-11A, EF-11B, EF-11C	Limestone delivery by truck, unloading and bulldozing. (AOS-2)	CD-11A, CD-11B, CD-11C

Emission Unit/Emission Point	Description	Control Devices[3],[4]
EU-12/EF-12A, EF-12B, EF-12C, EF-12D, EF-12E	Coal storage piles and related handling activities Coal is stored in a 30-day inactive storage pile and a 20-day active storage pile. Bulldozing is used to move coal to the reclaim hoppers, which discharge to conveyor.	CD-12B, CD-12D, CD-12E
EU-13/EP-13A	Coal crushing and related handling The emission unit is the coal crushing building. Emissions result from coal transfer points and crushing. All the emissions are collected and vented through a fabric filter.	CD-13A
EU-14/EP-14B, EF-14A, EF-14C	Crushed coal silos and related handling Crushed coal is transported from the coal crushing building to the tripper conveyor above the storage silos and then to the silos.	CD-14A, CD-14B, CD-14C
EU-15/EP-15C, EF-15A, EF-15B	Limestone storage and related handling - Limestone is stored in a 60,000-ton pile inside a dome. Bulldozing is used to move limestone to the reclaim hoppers, which discharge to a conveyor.	CD-15A, CD-15B, CD-15C
EU-16/EP-16A2, EF-16A	Limestone transport to limestone processing building - The emission unit consists of a conveyor used to transport limestone from the storage area to the limestone processing building and a transfer point at the limestone processing building.	CD-16A, CD-16A2
EU-17/EP-17, EP-17A	Crushed limestone silos and related handling - Pneumatic conveying of limestone to a surge hopper and then to either silo A or B.	CD-17, CD-17A

Emission Unit/Emission Point	Description	Control Devices[3],[4]
EU-18/EP-18, EF18B	Lime silos and handling - Lime delivery by truck and pneumatic unloading to a storage silo.	CD-18, CD-18B
EU-19/EP-19A, EP-19B, EP-19C, EP-19D	Fly ash and bed ash transport to mixer - Fly ash and bed ash are transported to silos and then to a mixing operation.	CD-19A, CD-19B, CD19-C, CD-19D
EU-20/ EF-20A, EF-20A1, EF-20E, EF-20F, EF-20G, EF-20I, EF-20H, EF-20J, EF-20K, EF-20L	Aggregate Production - Mixed fly ash and bed ash is transported by a conveyor and radial stacking conveyors to the aggregate production area. Manufactured aggregates are produced and stored periodically and bulldozed to the reclaim hopper. The normal operating scenario consists of transporting the ash to the aggregate production area by conveyor.	CD-20A, CD-20A1, CD-20E, CD-20F, CD-20G, CD-20H, CD-20I, CD-20J, CD-20K, CD-20L
EU-20A/EF-20B, EF-20C, EF-20D	Transport of ash to aggregate production area by truck (AOS-3)	CD-20B, CD-20C, CD-20D

Section III- General Permit Conditions

1. **Sanctions and Penalties:** The permittee is obligated to comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Any violation of the terms of this permit will be subject to administrative, civil or criminal penalties as established in the Puerto Rico Environmental Public Policy Act, Article 16 (Act Number 416, September 22, 2004, as amended).

2. **Right of Entry:** As specified under Rules 103 and 603(c)(2) of the RCAP, the permittee shall allow the EQB or an authorized representative, upon presentation of credentials and other documents as may be required by law, to perform the following activities:

   A. Enter upon the permittee's premises where an emission source is located or where emission related activities are conducted, or where records must be kept under the conditions of this permit, under the RCAP, or under the Clean Air Act;

B. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit, under the RCAP, or under the Clean Air Act;

C. Inspect and examine any facility, equipment (including monitoring and air pollution control equipment), practices or operations (including QA/QC methods) regulated or required under this permit; as well as sampling emissions of air quality and fuels; and

D. As authorized by the Clean Air Act and the RCAP, to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements.

3. **Sworn Statement:** All reports required pursuant Rule 103(D) of the RCAP (i.e., semiannual monitoring reports and annual compliance certification) shall be submitted together with a sworn statement or affidavit by the Responsible Official or a duly authorized representative. Such sworn statement shall attest to the truth, correctness and completeness of such records and reports.

4. **Data Availability:** As specified under Rule 104 of the RCAP, all emission data obtained by or submitted to the Board, including data reported pursuant to Rule 103 of the RCAP, as well as that obtained in any other way, shall be available for public inspection and may also be made available to the public in any additional manner that the Board may deem appropriate.

5. **Emergency Plan:** As specified under Rule 107 of the RCAP, the permittee shall have available an Emergency Plan which must be consistent with adequate safety practices, and provides for the reduction or retention of the emissions from the plant during periods classified by the Board as air pollution alerts, warnings or emergencies. These plans shall identify the emission sources, include the reduction to be accomplished for each source and the means by which such reduction will be accomplished. These plans shall be available for inspection, as required by representatives of the Board at any times.

6. **Control Equipment:** AESPR shall comply with Rule 108 of the RCAP, as follows:

A. All air pollution control equipment or control measures shall provide for continuous compliance with applicable rules and regulations. Such equipment or measures shall be installed, maintained, and operated according to those conditions imposed by this Title V permit, within the specified operating limitations of the manufacturer.

B. The collected material from air pollution control equipment shall be disposed in accordance with applicable rules and regulations. The removal, manipulation, transportation, storage, treatment or disposal will be done in such or manner that shall not to produce environmental degradation, and in accordance with applicable rules and regulations.

C. The Board may require, when deemed appropriate to safeguard the health and welfare of human beings, the installation and maintenance of additional, complete and separate air pollution control equipment of a capacity equal to the capacity of the primary control equipment. Furthermore, the Board may require that such additional air pollution control equipment be operated continuously and conjunctionally with the primary air pollution control equipment.

D. All air pollution control equipment shall be operated at all times while the source being controlled is in operation.

E. In the case of a shutdown of air pollution control equipment for the necessary scheduled maintenance, the intent to shutdown such equipment shall be reported to the Board at least three days prior to the planned shutdown. Such prior notice shall include, but is not limited to the following:

i. Identification of the specific source to be taken out of service with its location and permit number.

ii. The expected length of time that the air pollution control equipment will be out of service.

iii. The nature and quantity of emissions of air pollutants likely to be permitted during the shutdown period.

iv. Measures such as the use of off-shift labor and equipment that will be taken to minimize the length of the shutdown period.

v. The reasons why it will be impossible or impractical to shutdown the operating source during the maintenance period.

F. The permittee shall to the extent possible, maintain and operate at all times, including periods of start-up, shutdown and malfunction, any affected source and the associated air pollution control equipment, in a manner consistent with the original manufacturers design specifications and in compliance with applicable rules and regulations and permit conditions.

7. C**ompliance Certification:** As specified under Rule 602(c)(2)(ix)(C) of the RCAP, AESPR shall submit each year a compliance certification. This certification must be submitted to both the EQB and the EPA[5] no later than April 1^{rst} of each year covering the previous

[5] The certification to the EQB shall be mailed to: Manager, Air Quality Area, P.O. Box 11488, San Juan, PR 00910. The certification to the EPA shall be mailed to: Chief, Enforcement and Superfund Branch CEPD, US EPA – Region II, Centro Europa Building, 1492 Ponce de Leon Ave. Stop 22, Santurce PR 00909.

calendar year. The compliance certification shall include, but is not limited to, the information required under Rule 603(c) of the RCAP as follows:

A. The identification of each term or condition of the permit that is the basis of the certification; and

B. The compliance status. Each deviation shall be identified and taken into account in the compliance certification; and

C. A statement indicating whether the compliance was continuous or intermittent; and

D. The methods or other means used for determining the compliance status with each term and condition, currently and over the reporting period consistent with sections (a)(3)-(5) of Rule 603 of the RCAP; and

E. Identification of possible exceptions to compliance, any periods which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 (CAM) occurred; and

F. Such other facts as the Board may require to determine the compliance status of a source.

8. **Regulation Compliance:** As specified under Rule 115 of the RCAP, any violation to said Regulation, or to any other applicable rule or regulation, shall be grounds for the Environmental Quality Board (EQB) to suspend, modify, or revoke any relevant permit, approval, variance or other authorization issued by the EQB according to the Law of Uniform Administrative Procedures.

9. **Location Approval:** As specified under Rule 201 of the RCAP, nothing in this permit shall be interpreted as authorizing the location or construction of a major stationary source, or the modification of a major stationary source, or a major modification of a significant source, without obtaining first a location approval from the Board and without first demonstrating compliance with the National Ambient Air Quality Standards (NAAQS). This permit does not allow the construction of new minor sources without the required permit under Rule 203 of the RCAP.

10. **Open Burning:** As specified under the Rule 402 of the RCAP, the permittee shall not cause or permit the open burning of refuse in their premises except as established under Rule 402 (E) of the RCAP to conduct training or research of fire fighting techniques, as previously approved by the Board.

11. **Objectionable Odors:** As specified under Rule 420 of the RCAP, the permittee shall not cause or permit emissions to the atmosphere of any matter which produces an *objectionable*

odor that can be perceived in an area other than that designated for industrial purposes. (This condition is enforceable only by the State.)

12. **Permit Renewal Applications:** As specified under the Rule 602(a)(1)(iv) of the RCAP, the permittee's applications for permit renewal shall be submitted at least twelve (12) months prior to the date of permit expiration. A responsible official must certify all required applications consistent with paragraph (c) (3) of Rule 602 of the RCAP.

13. **Permit Duration:** As specified under Rule 603 of the RCAP, the following terms will apply during the duration of this permit:

    A. Expiration: This authorization shall have a fixed term of five (5) years. The expiration date will be automatically extended until the Board approves or denies a renewal application (Rule 605(c)(4)(ii) of the RCAP) but only in those cases where the permittee submits a complete renewal application at least twelve (12) months before the expiration date. (Rule 603 (a)(2), Rule 605 (c)(2) and Rule 605 (c)(4) of the RCAP)

    B. Permit Shield: As specified under Rule 605 (c)(4)(i) of the RCAP, the permit shield may be extended until the time it is renewed if a timely and complete renewal application is submitted.

    C. In the case that this permit is subject to any challenge by third parties, the permit shall remain in effect until the time it is revoked by a court of law with jurisdiction in the matter.

14. **Recordkeeping Requirement:** As specified under Rule 603(a)(4)(ii) of the RCAP, the permittee shall retain all required monitoring data and supporting information for a period of 5 years from the date of the monitoring sample, measurement, report or application. The permittee shall maintain readily accessible at the facility, copies of all records of required monitoring information that include the following:

    A. The date, place as defined in the permit, and time of sampling or measurements;
    B. The date(s) analyses were performed;
    C. The company or entity that performed the analysis;
    D. The analytical techniques or methods used;
    E. The results of such analysis; and
    F. The operating conditions as existing at the time of sampling or measurement.

15. **Reporting Requirement:** As specified under Rule 603(a)(5)(i) of the RCAP, AESPR shall submit the semi-annual reports of all required monitoring on October 1st and April 1st of every year, respectively, or more frequently if required by the EQB or any other underlying applicable requirement. All instances of deviations from permit requirements must be clearly

identified in such reports. All required reports must be certified by a responsible official as established under Rule 602(c)(3) of the RCAP.

16. **Deviations Reporting due to Emergencies:** According to Rule 603(a)(5)(ii) of the RCAP, any deviation resulting from an upset (such as sudden malfunction or break-down) or emergency conditions, as defined in Rule 603(e) of the RCAP, must be reported within the next 2 working days of the time when emission limitations were exceeded due to the emergency, if AESPR wishes to assert the affirmative defense authorized under Rule 603(e) of the RCAP. If AESPR raises the emergency defense upon an enforcement action, the permittee shall demonstrate that such deviation occurred due to an emergency and that the Board was adequately notified. If such emergency deviation lasts for more than 24 hours, the affected units may be operated until the end of the cycle or 48 hours, whichever occurs first. The Board may only extend the operation of an emission source in excess of 48 hours, if the source demonstrates to the Board's satisfaction that the National Air Quality Standards have not been exceeded and that there is no risk to the public health.

17. **Deviation Reporting (Hazardous Air Pollutants):** The source shall act as specified in its Emergency Response Plan (established in Rule 107 (C) of the RCAP), when such Plan has demonstrated that there is no significant impact at the fenceline or shall shut down its operations immediately if there is a significant impact at the fenceline. Pursuant to Rule 603 (a)(5)(ii)(b), a notification will be required if a deviation occurs that results in the release of emissions of hazardous air pollutants for more than an hour in excess of the applicable limit. The permittee shall notify the Board within 24 hours of the deviation. For the discharge of any regulated air pollutant that continues for more than 2 hours in excess of the applicable limit, AESPR shall notify the Board within 24 hours of the deviation. AESPR shall also submit to the Board, within 7 days of the deviation, a detailed written report which includes probable causes, time and duration of the deviation, remedial action taken, and steps which are being taken to prevent a reoccurrence.

18. **Severability Clause:** As specified under Rule 603(a)(6) of the RCAP, the clauses in this permit are severable. In the event of a successful challenge to any portion of the permit in an administrative or judicial forum, or in the event any of its clauses is held to be invalid, all other portions of the permit shall remain valid and effective, including those related to emission limits, terms and conditions, be they specific or general, as well as monitoring, record keeping and reporting requirements.

19. **Permit Noncompliance:** As specified under Rule 603(a)(7)(i) of the RCAP, the permittee must comply with all conditions of the permit. Permit noncompliance constitutes a violation of the RCAP and will be grounds for taking the appropriate enforcement action, impose sanctions, revoke, terminate, modify, and/or reissue the permit, or to deny a permit renewal application.

20. **Defense not Allowed:** As specified under Rule 603(a)(7)(ii) of the RCAP, it shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

21. **Permit Modification and Revocation:** As specified under Rule 603(a)(7)(iii) of the RCAP, the permit may be modified, revoked, reopened, reissued, or terminated for cause according to the Law of Uniform Administrative Procedures. The filing of a request by the owner or operator of the installation 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.

22. **Property Rights:** As specified under Rule 603(a)(7)(iv) of the RCAP, this permit does not convey any property rights of any sort, nor does it grant any exclusive privilege.

23. **Obligation to Furnish Information:** As specified under Rule 603(a)(7)(v) of the RCAP, the permittee shall furnish to the Board, within a reasonable time, any information that the Board 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 Board copies of documents related to this permit.

24. **Changes in Operating Scenarios:** As specified under Rule 603(a)(10)(i) of the RCAP, the permittee shall be record in a logbook, contemporaneously with making a change from one operating scenario to another authorized in Section VI of this permit, the scenario under which it is operating. This logbook must be kept at the permittee's facility at all times.

25. **Prohibition on Default Issuance:** As specified under Rule 605(d) of the RCAP, it shall never be considered that a permit has been issued by default as a result of the Board's failure to take final action on a permit application within eighteen (18) months. The Board's failure to issue a final permit within eighteen (18) months should be treated as a final action solely for the purpose of obtaining judicial review in a state court.

26. **Administrative Permit Amendments and Permit Modifications:** As specified under Rule 606 of the RCAP, the permit shall not be amended nor modified unless the permittee complies with the requirements for administrative permit amendments and permit modifications as described in the RCAP.

27. **Permit Reopening:** As specified under Rule 608(a)(1), this permit shall be reopened and revised under the following circumstances:

    A. Whenever additional applicable requirements under any law or regulation become applicable to the permittee, when the remaining permit term is of three (3) or more years. Such reopening shall be completed eighteen (18) months after promulgation

of said applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to Rule 605(c)(4)(i) or Rule 605(c)(4)(ii) of the RCAP.

B. Whenever the EQB or the EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emission standards or other terms or conditions of the permit.

C. Whenever the EQB or the EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

28. **Changes in Name or Responsible Official:** This permit is issued to **AES Puerto Rico Cogeneration Plant.** In the event that the company and/or facility change its name, the responsible official must submit an administrative amendment to this permit to reflect the change in name. If the event that the responsible official changes, the new responsible official must submit no later than 30 days after the change, an administrative amendment including a sworn statement in which he/she accepts and promises to comply with all the conditions of this permit.

29. **Changes in Ownership**: This permit is issued to **AES Puerto Rico Cogeneration Plant**. In the event that the company and/or facility is transferred to a different owner or change operational control and the Board determines that no other change in the permit is necessary, the new responsible official must submit an administrative amendment. The administrative amendment shall include a sworn statement in which the new responsible official accepts and promises to comply with all the conditions of this permit, and a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee. This is not applicable if the Board determines that changes to the permit are necessary.

30. **Renovation Work:** The permittee shall comply with the provisions set forth in 40 CFR §61.145 and §61.150, and Rule 422 of the RCAP when doing renovation or demolition activities of asbestos containing materials at the facility.

31. **Compliance Clause:** Under no circumstances does compliance with this permit exempts AESPR from complying with all other applicable state or federal laws, regulations, permits, administrative orders or applicable court orders.

32. **Emissions Calculation:** The permittee shall submit, on the first day of April each year, the actual or permissible emissions calculation for the previous calendar year. The emissions calculation shall be submitted on the forms prepared by the EQB for this purpose and the responsible official shall certify all the information submitted as true, correct and representative of the permitted activity.

33. **Annual Fee:** As specified under Rule 610 of the RCAP, the permittee must submit an annual payment based on the emissions calculations for each regulated pollutant. The payment will be based on their actual emissions at a rate of $37.00 per ton, unless the Board decides otherwise as permitted under Rule 610(b)(2)(iv) of the RCAP. This payment for the previous year must be made on or before June 30 of each year.

34. **Requirements for Refrigerants (Climatologic and Stratospheric Ozone Protection):**

A. In the event that the permittee has equipment or appliances, including air conditioning units, which use Class I or II refrigerants as defined in 40 CFR 82, Subpart A, Appendices A and B, he/she shall take the necessary measures to ensure that all maintenance, service or repair services performed are done so according to the practices, certification and personnel requirements, disposition requirements, and recycling and/or recovery equipment certification requirements specified under 40 CFR 82, Subpart F.

B. Owners/ operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.

C. Service on Motor Vehicles: If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term motor vehicle as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term MVAC as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo or system used on passenger buses using HCFC-22 refrigerant.

35. **Labeling of Products Using Ozone-Depleting Substances:** AESPR shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, subpart E.

A. All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106.

B. The placement of the required warning statement must comply with the requirements pursuant to §82.108.

C. The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110.

D. No person may modify, remove or interfere with the required warning statement except as described in §82.112.

36. **Risk Management Program (RMP)**

A. AESPR is subject to the 40 CFR part 68 because the facility exceeds the threshold quantities for chlorine.

B. According to section 68.190 of the 40 CFR, AESPR shall review and update the RMP plan required under Section 68.150 of the 40 CRF as follows:

i. At least once every five years from the date of its initial submission or most recent update required by paragraphs (b)(2) through (b)(7) of section 68.190 of the 40 CFR, whichever is later.

ii. No later than three years after a newly regulated substance is first listed by EPA;

iii. No later than the date on which a new regulated substance is first present in an already covered process above a threshold quantity;

iv. No later than the date on which a regulated substance is first present above a threshold quantity in a new process;

v. Within six months of a change that requires a revised Process Hazard Analysis (PHA) or Hazard Review;

vi. Within six months of a change that requires a revised offsite consequence analysis as provided in §68.36 of the 40 CFR; and

vii. Within six months of a change that alters the program level that applied to any covered process.

C. If the stationary source is no longer subject to part 68 of the 40 CFR, AESPR shall submit a revised registration to EPA within six months indicating that the stationary source is no longer covered. [40 CFR §68.190(c)]

D. According to section 68.195 of the 40 CFR, AESPR shall correct the RMP as follows:

i. New accident history information –For any accidental release meeting the five year accident history reporting criteria of §68.42 of the 40 CFR and occurring after April 9, 2004, AESPR shall submit the data required under

sections 68.168, 68.170(j), and 68.175(l) of the 40 CFR with respect to that accident within six months of the release or by the time the RMP is updated under section 68.190 of the 40 CFR, whichever is earlier.

ii. Emergency contact information –According to section 68.195(b) of the 40 CFR, within one month of any change in the emergency contact information required under §68.160(b)(6), AESPR shall submit a correction to that information.

E. AESPR shall maintain records supporting the implementation of part 68 of the 40 CFR for five years unless otherwise provided in subpart D of part 68 of the 40 CFR. [40 CFR §68.200]

F. As part of the compliance certification submitted under Rule 602(c)(2)(ix)(C) of the RCAP, AESPR shall submit a certification statement that the source is in compliance with all requirements of Part 68 including the registration and submission of the RMP. The annual certification statement shall include the following information:

i. The source shall certify that any required submittal was prepared and submitted to the appropriate authorities; and

ii. Report any accidental release occurred during the certification period.

iii. Identify any changes to process chemicals, technology equipment and procedures; and changes to stationary sources that affect a covered process.

iv. Report the date of any update or correction required under part 68.

v. Report if AESPR submitted an RMP de-registration to EPA to indicate that this stationary source is no longer covered.

G. If at any time a covered process no longer meets the eligibility criteria of its Program level, AESPR shall comply with the requirements of the new Program level that applies to the process and update the RMP as provided in section 68.190. [Section 68.10(e)]

H. AESPR shall develop a management system to oversee the implementation of the risk management program elements. [40 CFR §63.15(a)]

i. AESPR shall assign a qualified person or position that has the overall responsibility for the development, implementation, and integration of the risk management program elements. [§68.15(b) of the 40 CFR]

ii. When the responsibility for implementing individual requirements of this part is assigned to persons other than the person identified under previous paragraph of this permit, the names or positions of this people shall be documented and the lines of authority defined through an organization chart or similar document. [40 CFR 68.15(c)]

I. Except as provided in section 68.90(b) of the 40 CFR, AESPR shall comply with the requirements of section 68.95. [Section 68.90(a) of the 40 CFR]

37. **General Duty Requirements:** AESPR has the general obligation of identifying hazards which may result from accidental releases of any controlled substance under section 112 (r) of the Clean Air Act or any other extremely hazardous substance in a process, using appropriate hazard assessment techniques, designing, maintaining and operating a safe facility and minimizing the consequences of accidental releases if they occur as required in section 112(r)(1) of the Act and Rule 107(D) of the RCAP.

38. **Roof Surface Coating:** This is a state-only requirement. AESPR shall not cause or permit the roof surface coating by applying hot tar or any other coating material containing organic compounds without previous notification to the Board. The use of used oil or hazardous waste for roof surface coating is prohibited.

39. **Emergency Electric Generators**:

a) The operation for each emergency electric generator identified as insignificant activity are limited to 500 hours per year.

b) The permittee shall keep a monthly record of the hours of operation and fuel consumption for each emergency electric generator. It shall be kept available at any time for inspection by EQB and EPA personnel.

40. **Storage Tanks:** AESPR shall keep records of all fuel oil storage tanks listed as insignificant activities showing the dimensions of each tank and an analysis showing the capacity of each tank pursuant to the 40 CFR §60.116b. This documentation shall be readily available at any time for inspection of EQB personnel and shall be kept onsite for the life of the tank.

41. **New or Amended Regulation:** Whether a federal or state regulation is promulgated or amended and the facility is affected by it, the owner or operator shall comply with the requirements of the new or amended regulation.

42. **Reciprocating Internal Combustion Engines:**

a) Any facility which owns or operate a stationary Reciprocating Internal Combustion Engine (RICE)[6] is subject to the National Emission Standards for Hazardous Air

[6] As defined on 40 CFR, §63.6585(a).

Pollutants for Reciprocating Internal Combustion Engines contained in the 40 CFR Part 63, Subpart ZZZZ. The affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand. Unless the source is exempt, the affected source must comply with the applicable emission limitations and/or operating limitations of this subpart by the following dates:

i. on or before June 15, 2007 for an existing stationary RICE, excluding existing non-emergency CI stationary RICE, with a site rating of more than 500 brake HP located at a major source of HAP emissions.

ii. no later than May 3, 2013 for an existing non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary CI RICE located at an area source of HAP emissions.

iii. no later than October 19, 2013 for an existing stationary SI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary SI RICE located at an area source of HAP emissions.

iv. The sources subject to the emission and/or operating limitations shall comply with the applicable notification requirements of 40 CFR §63.6645 and in 40 CFR part 63, subpart A by the dates specified in the regulation.

b) According to the 40 CFR §63.6590(b)(3), existing emergency[7] stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions do not have to meet the requirements of subpart ZZZZ and of subpart A of part 63 of the 40 CFR, including initial notification requirements (This applies to EU-7, Emergency Generator).

c) New or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, which is also subject to regulations under 40 CFR Part 60 Subpart IIII must meet the requirements of Subpart ZZZZ of Part 63 of the 40 CFR by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines (This applies to EU-8, Fire Pump) [§63.6590(c) of the 40 CFR].

[7] As defined in 40 CFR §63.6675. All emergency stationary RICE must comply with the requirements specified in §63.6640(f) of the 40 CFR in order to be considered emergency stationary RICE. If the engine does not comply with the requirements specified in §63.6640(f), then it is not considered to be an emergency stationary RICE under subpart ZZZZ of the 40 CFR.

d) Existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions must comply with the emission limitations in Table 2c of Subpart ZZZZ of the 40 CFR Part 63 applicable to the source. (This applies to EU- 9 - Emergency Boiler Feedwater Pump) [40 CFR §63.6602].

43. **Reports:** Unless otherwise specified in this permit, any requirement of information submittal to the Board shall be addressed to: Manager, Air Quality Area, P. O. Box 11488, San Juan, P.R. 00910.

44. **Reservation of Rights:** Except as expressly provided in this Title V permit:

A. Nothing herein shall prevent EPA or the Board from taking administrative enforcement measures or seeking legal or equitable relief to enforce the terms of the Title V permit, including but not limited to the right to seek injunctive relief, and imposition of statutory penalties and fines.

B. Nothing herein shall be construed to limit the rights of EPA or the Board to undertake any criminal enforcement activity against AESPR or any person.

C. Nothing herein shall be construed to limit the authority of EPA or the Board to undertake any actions in response to conditions that present an imminent and substantial endangerment to public health or welfare, or the environment.

D. Nothing herein shall be construed to limit AESPR' rights to administrative hearing and judicial appeal of termination/ revocation/ disputes over modification/ denial actions in accordance with regulations and the Environmental Public Policy Act.

45. Source Modifications without a permit revision: According to Rule 607 of the RCAP, AESPR may perform:

(a) Source changes

(1) Permitted sources may make Section 502(b)(10) changes 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).

(i) For each such change, the facility must provide the Administrator and the Board with written notification in advance of the proposed changes, which shall be seven (7) days. The written notification shall include a brief description of the change within the permitted facility, the date on which

the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change. The source, the Board, and EPA shall attach each such notice to their copy of the relevant permit.

(ii) The permit shield described in paragraph (d) of Rule 603 shall not apply to any change made pursuant to section (a)(1) of Rule 607.

(2) Permitted sources may trade increases and decreases in emissions in the permitted facility for the same pollutant, where the permit provides for such emissions trades without requiring a permit revision and based on the 7-day notice prescribed in section (a)(2) of Rule 607. This provision is available in those cases where the permit does not already provide for such emissions trading.

(i) Under paragraph (a)(2) of Rule 607, the written notification required shall include such information as may be required by the provision in the Puerto Rico State Implementation Plan (PR-SIP) authorizing the emissions trade, including when the proposed change will occur, a description of each such change, any change in emissions, the permit requirements with which the source will comply using the emissions trading provisions of the PR-SIP, and the pollutants emitted subject to the emissions trade. The notice shall also refer to the provisions with which the source will comply in the PR-SIP and that provide for the emissions trade.

(ii) The permit shield described in paragraph (d) of Rule 603 shall not extend to any change made under section (a)(2) of Rule 607. Compliance with the permit requirements that the source will meet using the emissions trade shall be determined according to requirements of the applicable implementation plan authorizing the emissions trade.

(3) If a permit applicant requests it, the Board shall issue permits that contain terms and conditions (including all terms required under sections (a) and (c) of Rule 603 to determine compliance) allowing for the trading of emissions increases and decreases in the permitted facility solely for the purpose of complying with a federally-enforceable emissions cap. Such a cap must be established in the permit independent of otherwise applicable requirements. The permit applicant shall include in its application proposed replicable

procedures and permit terms that ensure the emissions trades are quantifiable and enforceable. The Board shall not be required to include in the emissions trading provisions any emissions units for which emissions are not quantifiable or for which there are no replicable procedures to enforce the emissions trades. The permit shall also require compliance with all applicable requirements.

(i) Under section (a)(3) of Rule 607, the written notification required shall state when the change will occur and shall describe the changes in emissions that will result and how these increases and decreases in emissions will comply with the terms and conditions of the permit.

(ii) The permit shield described in paragraph (d) of Rule 603 may extend to terms and conditions that allow such increases and decreases in emissions.

(b) Off-Permit Changes. The Board may allow changes that are not addressed or prohibited by the permit and/or State Law.

(1) A permitted facility may make changes without obtaining a permit revision if such changes are not addressed or prohibited by the permit, other than those described in paragraph (c) of Rule 607.

(i) Each such change shall meet all applicable requirements and shall not violate any existing permit term or condition.

(ii) Sources must provide contemporaneous written notice to the Board and EPA of each such change, except for changes that qualify as insignificant under paragraph (c)(1) of Rule 602. Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted and any applicable requirement that would apply because of the change.

(iii) The change shall not qualify for the shield under paragraph (d) of Rule 603.

(iv) The permittee shall keep a record describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.

(c) A permitted facility cannot make changes without a permit revision if such changes are modifications under any provision of Title I of the Act.

2. (a) AESPR may make changes under section 502(b)(10) of the Act without requiring a permit revision if such changes:

(1) are not modifications under any provision of Title I of the Act,

(2) do not exceed the allowable emissions under the permit,

3) do not result in the emission of any pollutant not previously emitted,

(4) do not violate any applicable requirement or contravene federally enforceable terms and permit conditions such as monitoring (including test methods), recordkeeping, reporting and compliance certification requirements,

(5) are not changes under Title I of the Act to an emission limit, a work practice or a voluntary emission cap.

(b) Rule 203 of the RCAP is required for any construction or modification of an emission source. For purposes of part II of the RCAP, a modification is defined as any physical change in, change in the method of operation or a change in type of fuel used of an existing stationary source, that would result in a net increase in that stationary source's potential to emit any air pollutant (subject to any standard), or which results in the emission of any pollutant (subject to an standard) not previously emitted. A physical change shall not include routine maintenance, repair and the replacement of any equipment having the same capacity, equal efficiency or greater environmental benefit to be used for the same purpose.

(c) The written notification addressed in condition 45(a)(1)(i) refers to changes covered under condition 45 (a)(1). Changes not covered will be processed under the requirements of Rule 203 of the RCAP.

(d) Any emission trading as provided in condition 45(a)(2) above will not be authorized if the facility does not provide the reference to the PR-SIP provisions authorizing such emissions trading.

(e) If AESPR requests so, the Board may allow the emission trading in the facility solely for the purpose of complying with a federally-enforceable emissions cap. The application shall be based in replicable procedures and

shall include permit terms that ensure the emission trades are quantifiable, replicable and enforceable.

(f) Off- permit changes will not be exempt from complying with the requirements and procedures of Rule 203 of the RCAP, if applicable.

Section IV - Facility Wide Emission Limits

1. AESPR's total emissions shall be limited to the following based on the potential to emit, as authorized in the construction permit PFE-30-0896-0860-I-II-C.

A. Criteria Pollutants

Criteria Pollutant	Emission Limit (tons /year)
PM_{10}	621.92
SO_2	451.68
NOx	2051.39
CO	2044.19
VOC	98.04
Pb	0.09

B. Hazardous Air Pollutants and Other Regulated Atmospheric Pollutants

Hazardous Air Pollutant	Emission Limit (tons/year)
Antimony	0.335
Arsenic	0.075
Beryllium	0.037
Cadmium	0.148
Hexavalent Chromium	0.016
Cobalt	0.094
Manganese	1.83
Mercury	0.368
Selenium	1.30
Hydrochloric Acid	91.90

Hazardous Air Pollutant	Emission Limit (tons/year)
Nickel	0.205
Hydrogen Cyanide	3.69
Total HAPs	99.998

Other Regulated Pollutants	Emission Limits (tons /year)
Fluorides	9.80
Sulfuric Acid Mist	49.87

2. AESPR shall not exceed the emission limits during any 365-days rolling period. The emissions of any 365-days rolling period for each emission unit shall be calculated by adding the daily emissions to the total sum of the emissions for the previous 364 days.

3. To demonstrate compliance with the previous conditions, AESPR shall use the same calculation methodology used in the Title V permit application. Any change in the methodology shall be previously approved by EQB.

4. The emissions calculations required by condition 32 of section III of this permit will be based in actual emissions from AESPR, although emissions calculations based on the facility's emission limits will be accepted. If AESPR wants to perform the calculations based on emission limits, AESPR will pay the same charge per ton as the sources that perform the calculations based on actual emissions. Also, when AESPR applies for a modification, administrative change, or minor modification to its Title V permit, they will only have to pay the amount per ton based in the increase in emissions, if any, caused by the change, and not the whole charges, according to Rule 610(a) of the RCAP.

Section V - Permit Specific Conditions

A. Facility-wide requirements

1. The emission limits included in this Title V permit come from the construction permit PFE-30-0896-0860-I-II-C and/or the PSD permit (revision dated August 10, 2004), unless otherwise specified.

2. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air

pollutant emissions. The continuous emission monitoring systems required by this permit shall be on-line and in operation 95% of the time when boilers are operating.

3. **Fuel Types:** AESPR shall combust the following fuels:

   a. Low sulfur coal with a maximum sulfur content of 1.0% by weight. (EU-1 & EU-2)

   b. Distillate oil with a maximum sulfur content of 0.05% by weight (startup (EU-1 and EU-2) and emergency equipment fuel. (EU-7, EU-8, EU-9)

   c. Propane. (EU-3)

4. In case of conflict, AESPR shall comply with the most stringent limit or more stringent monitoring, recordkeeping, and reporting requirement of either the limits provided herein or provided in the PSD permit or other subsequent applicable requirement(s).

5. **Compliance with Rule 404 of the RCAP**

   a. AESPR shall use water or suitable chemicals for chemical stabilization and the control of dust in construction operations, quarrying operations, the grading of roads or the clearing of land.

   b. AESPR shall apply asphalt, water, or suitable chemicals and use vegetation on dirty roads or roads under construction, materials, stockpiles, and other surfaces which can give rise to airborne dust.

   c. AESPR shall cover, at all times when in motion, open bodied trucks transporting materials likely to give rise to airborne dusts.

   d. AESPR shall pave roadways and maintain them in clean conditions.

   e. AESPR shall remove promptly earth or other material from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, by erosion by water, or by other means.

   f. When air pollutants escape from a building or equipment and cause a nuisance or violate any regulations, the Board may order that the building or equipment in which processing, handling, and storage are done, be tightly closed and/or ventilated so that all emissions from the building or equipment are controlled to remove or destroy such air pollutants before being

discharged to the open air. The implementation of this measure should not create occupational health hazards.

g. Every area, lot, or part of a piece of land intended for parking with a capacity greater than 900 square feet must be paved with concrete, asphalt, equivalent hard surface or chemical stabilization on all its access and internal roads where unpaved traffic adjoin paved roadways and parking areas.

B. Specific requirements for each emission unit

1. EU-1 and EU-2: Coal-fired circulating fluidized bed boilers (CFB), No. 1 and 2

a. Summary of Permit Limits for EU-1 and EU-2

The following table contains a summary of the permit limitations for the boilers EU-1 and EU-2. In case of conflict, the written conditions in section b. below shall prevail.

Condition	Parameter	Value	Units	Test Method	Method Frequency	Recordkeeping	Reporting Frequency
Opacity Limit	Opacity (six-minute average)	20	percent	COMS Method 9	Continuous Initial Stack Test (See Appendix IV)	Electronic records Test Results	60 days after Method 9 reading Quarterly excess emission report Semiannual (RCAP)
PM Emission Limit	PM	0.015	lb/MMBtu	COMS Method 5	Continuous Initial Stack Test	Electronic Records Test Results (See Appendix IV)	60 days after the test Quarterly excess emission report Annual emissions
		36.9	lb/hr				
PM_{10} Emission Limit	PM_{10}	0.03	lb/MMBtu	COMS Method 201A/202	Continuous Initial Stack Test	Electronic Records Test Results (See Appendix IV)	60 days after the test Quarterly excess emission report Annual emissions
		73.8	lb/hr				
NOx Emission Limit	NOx (24-hour rolling average)	57	ppmdv@7% O_2	CEMS Method 7E	Continuous (CEMS) Initial Stack test	Electronic Records Test Results (See Appendix IV)	60 days after the test Quarterly excess emission report Annual emissions
		0.10	lb/MMBtu				
		246.1	lb/hr				
CO Emission Limit	CO (8-hr average)	0.10	lb/MMBtu	CEMS Method 10	Continuous (CEM) Initial Stack Test	Electronic Records Test Results (See Appendix IV)	60 days after the test Quarterly excess emission report Annual emissions
		94	ppmvd@7% O_2				
		246.1	lb/hr				

Condition	Parameter	Value	Units	Test Method	Method Frequency	Recordkeeping	Reporting Frequency
SO_2 Emission Limit	SO_2 (3-hr average)	9.00	ppmdv	CEMS	Continuous (CEM)	Electronic Records	60 days after the test
		0.022	lb/MMBtu	Method 6C	Initial Stack Test	Test Results (See Appendix IV)	Quarterly excess emission report
		54.1	lb/hr				Annual emissions
Maximum Sulfur Content	Coal	1.0	Percent Weight	Fuel Analysis	Monthly	Analysis Results	Monthly (Rule 410)
	No. 2 Fuel Oil	0.05	Percent Weight	Fuel Supplier Analysis	With each delivery	Certification provided by the supplier	Quarterly
H_2SO_4 Emission limit	H_2SO_4	0.64	ppmvd@7% O_2	Method 8	Initial Stack Test	Test Results (See Appendix IV)	60 days after the test
		0.0024	lb/MMBtu				Annual emissions
		5.9	lb/hr				
Fluoride emission limit	HF	4.78E-4	lb/MMBtu	Coal analysis	Monthly	Analysis of HF content and coal consumption	60 days after the test
		1.18	lb/hr				Semiannual report (RCAP)
		9.8	ton/yr (12-month rolling average)	Method 13B	Initial Stack Test	Test Results (See Appendix IV)	Annual Emissions
VOC emission limit	VOC	7.70	ppmvd@7% O2	Method 25A & Method 18	Initial Stack Test	Test Results (See Appendix IV)	60 days after the test
		0.0047	lb/MMBtu				
		11.6	lb/hr				Annual Emissions
NH_3 concentration limit	NH_3 slip	10	ppm_{dv}	CTM-027	Initial Stack Test	Test Results (See Appendix IV)	Semiannual report (RCAP)
				Urea injection Rate		Records of Urea Injection Rate	Annual Compliance Certification
Coal Consumption Limit	Coal	1,866,677	tons/year	Record Coal Use	Daily	Logbook	Monthly report of fuel use (Rule 410 of the RCAP)
							Annual Compliance Certification
Maximum Annual Capacity Factor	Capacity Factor	95	Percent	Record Heat Input Rate	Monthly	Logbook	Quarterly report of heating value
	(Fuel Used - Heat Input)	40,966,709	MMBtu/year				Annual Compliance Certification
Stack Gas Volumetric Flow Rate	Volumetric Flow Rate	NA	NA	CMS	Continuous	Electronic Records	Quarterly (EPA)

Condition	Parameter	Value	Units	Test Method	Method Frequency	Recordkeeping	Reporting Frequency
Startup / Shutdown Limits	Startup	14	hours	Records of duration of startup/shutdown periods and fuel use	During each startup/shutdown period	Logbook	Annual Compliance Certification
	Post outage	50	hours[8]				
	Startup	4,200	gal/hr				
		85,000	gal/day				
		175,000	gal/startup				
	Shutdown period	8	hours				

b. Specific Conditions for EU-1 and EU-2

(1) **Control Devices:** AESPR shall install and shall continuously operate the following air pollution controls in the CFB boilers:

i. A Selective Non-Catalytic Reduction (SNCR) system (urea injection) for the control of NO_x at the CFBs;

ii. A limestone injection system and circulating dry scrubber, which uses lime, for the control of SO_2 at the CFBs;

iii. An Electrostatic Precipitator (ESP) for the control of PM and PM_{10} at the CFBs;

(2) At all times, including periods of startup, shutdown, and malfunction, AESPR shall, to the extent practicable, maintain and operate the CFBs including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to EPA and/or EQB which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the facility.

(3) **Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978**

i. The CFB boilers are subject to the Standards of Performance for Electric Utility Steam Generating Units (40 CFR Part 60 Subpart Da) for PM, SO_2 and NOx. AESPR shall comply with the applicable requirements in this regulation.

ii. The emission limits included in this Title V permit are more stringent than the emission limits required by Subpart Da, of the 40 CFR Part 60. Compliance with the emission limits included in this permit for the CFB

[8] Twice per year for an average of one startup per boiler.

boilers shall be deemed compliance with the emission standards included in the 40 CFR Part 60, Subpart Da.

iii. Emissions Monitoring, 40 CFR §60.49Da.

(A) The CEMS required under this permit shall operate and record the data during all periods of operation of the CFB Boilers, including periods of startup, shutdown or emergency conditions, except for CEMS breakdown, repairs, calibration checks and zero and span adjustment. The CEMs non- operating time must not exceed 5% of the CFB boiler operating time.

(B) AESPR shall obtain NOx, SO_2 emission data for at least 18 hours in at least 22 out of 30 successive boiler operating days. If this minimum data requirement cannot be met with CEMS, AESPR shall supplement emission data with supplement emission data with other monitoring systems approved by the EPA as described in section 60.49Da(h) of the 40 CFR.

iv. Reporting and Recordkeeping Requirements, 40 CFR §60.51Da and §60.52Da - AESPR shall comply with the reporting and recordkeeping requirements in sections 60.51Da and 60.52Da.

(4) **Opacity Limit**

i. Opacity of emissions shall not exceed 20 percent (six-minute average). However, AESPR may discharge visible emissions of an opacity up to 60 percent for a period of no more than 4 minutes in any consecutive 30-minutes interval, or up to 27 percent opacity during one six-minute set per hour, whichever is more stringent.

ii. Prior to the date of startup and thereafter, AESPR shall install, calibrate, maintain, and operate a continuous opacity monitoring system (COMS). The systems shall meet EPA monitoring performance specifications (40 CFR §60.13 and 40 CFR Part 60, Appendix B, Performance Specifications 1).

iii. When the COMS establishes that the opacity limit is being exceeded according to Rule 403 of the RCAP, AESPR shall verify that the equipment causing the visible emissions is operating according to the manufacturer's specifications and the permit conditions. If it is not working properly, AESPR shall take immediate corrective actions to eliminate the excess opacity.

iv. EQB reserves its right to require additional visible emission readings in order to demonstrate compliance with the opacity limit.

(5) **Particulate Matter (PM), Particulate Matter under 10 Microns (PM_{10}) emission limits**

i. Emissions of PM shall not exceed 0.015 lb/MMBtu or 36.9 lb/hour, whichever is more stringent.

ii. Emissions of PM_{10} (condensible and noncondensible) shall not exceed 0.03 lb/MMBtu or 73.8 lb/hour, whichever is more stringent.

iii. Because condensible PM_{10} emissions from fluidized bed boilers have not been widely quantified, there is a possibility that the actual condensible portion of PM_{10} would cause the above emission rate to be exceeded. In the event that AESPR cannot meet the above limit because of condensible PM_{10}, EPA may adjust the PM_{10} emission rate to a level not to exceed 0.05 lb/MMBtu, pending EPA's review of the stack test results[9]. AESPR shall apply for a permit revision according to the procedures of Rule 606 of the RCAP to incorporate the adjusted PM_{10} emission rate to this permit. A construction permit modification under Rule 203 of the RCAP may be necessary before applying for a revision to this Title V permit.

iv. The control efficiency of particulate matter emissions shall be established during all particulate performance testing and shall be a minimum of 99% at all times of normal operation (daily average).

v. **Rule 406 of the RCAP**: According to Rule 406 of the RCAP, AESPR shall not cause nor permit the emission of particulate matter, from any equipment burning solid or liquid fuel, in excess of 0.3 pounds per million Btu. The boilers are subject to an emission limit of 0.015 lb/MMBtu, which is most stringent than the emission limit in Rule 406 of the RCAP. Compliance with the PM emission limit included in this permit shall be deemed compliance with the emission limit in Rule 406 of the RCAP.

vi. AESPR shall use the performance test results and compliance with the opacity limitations to demonstrate compliance with the PM/PM_{10} emission limit.

[9] On April 19, 2004, AESPR submitted a request to EPA under this provision. EPA granted this request. EQB granted this request on September 12, 2005.

(6) **Nitrogen Oxides (NO_x) Emission Limit**

i. Emissions of nitrogen oxides shall not exceed on a 24-hour rolling average basis 57 parts per million dry volume (ppm_{dv}) corrected to 7% oxygen, or 0.10 lb/MMBtu, or 246.1 lb/hour, whichever is more stringent.

ii. Compliance with the NOx emission limit from the CFB boilers shall be determined with the performance test results (See Appendix IV) and by using a using a CEM, as required in condition V.B.1.b.16.

(7) **Carbon Monoxide (CO) Emission Limit**

i. Emissions of CO shall not exceed 0.10 lb/MMBtu on an eight-hour average basis, 94 ppm_{dv} corrected to 7% oxygen, or 246.1 lb/hour, whichever is more stringent.

ii. Compliance with the CO emission limit from the CFB boilers shall be determined with the performance test results and by using a CEM, as required in condition V.B.1.b.16.

(8) **Sulfur Dioxide (SO_2) Emission Limit**

i. Emissions of sulfur dioxide shall not exceed on a 3-hour average basis 9.00 ppm_{dv} corrected to 7% oxygen, or 0.022 lb/MMBtu, or 54.1 lb/hour, whichever is more stringent.

ii. Compliance with the SO_2 emission limit from the CFB boilers shall be determined with the performance tests results and by using a CEM, as required in condition V.B.1.b.16.

iii. **Sulfur Content in Fuel** - The CFB boilers shall combust low sulfur coal with a maximum sulfur content of 1.0% by weight. The No. 2 fuel oil used during startup of the CFB boilers shall have a maximum sulfur content of 0.05% by weight.

iv. AESPR shall keep daily records with the sulfur content in the fuels burned in the CFB, available for inspection by EQB personnel.

v. AESPR shall submit a monthly report indicating on a daily basis the sulfur content in the coal and diesel burned in the CFB boilers and the amount of fuel used within the next 15 days of the next month following the one being reported, as required by Rule 410 of the RCAP. This report shall be addressed to the Data Validation and Mathematical Modeling Division of the Air

Quality Area of the EQB and shall be available in the facility for review by the Board's technical personnel.

vi. AESPR may use a certification from the fuel supplier to demonstrate compliance with the sulfur content in the fuel requirement included in the previous condition. However, this does not exempt AESPR from complying with the monthly requirement to analyze coal samples required by the PSD permit and included in this Title V permit.

(9) **Sulfuric Acid Mist Emission Limit**

i. Emissions of sulfuric acid mist shall not exceed based on the average of three 1-hour stack performance tests 0.64 ppm_{dv} corrected to 7% oxygen, or 0.0024 lb/MMBtu, or 5.9 lb/hour, whichever is more stringent.

ii. AESPR shall use the performance test results to demonstrate compliance with the H_2SO_4 mist emission limit.

(10) **Fluorides (as HF) Emission Limit**

i. Emissions of fluorides shall not exceed 4.78 x 10^{-4} lb/MMBtu or 1.18 lb/hour, whichever is more stringent.

ii. AESPR shall use the performance test results and the monthly fluorine content analysis to demonstrate compliance with the fluorides emission limit.

(11) **VOC Emission Limit**

i. Emissions of VOCs shall not exceed based on the average of three 1-hour stack performance tests 7.70 ppm_{dv} corrected to 7% oxygen, 0.0047 lb/MMBtu, or 11.6 lb/hour, whichever is more stringent.

ii. AESPR shall use the performance test results to demonstrate compliance with the VOC emission limit. In addition, AESPR shall monitor excess air (O_2) to maintain adequate oxygen levels and minimize VOC formation. AESPR shall maintain records showing any events and the time when adequate excess air is not maintained.

(12) **Ammonia Concentration Limit**

i. The ammonia slip associated with the urea injection shall not exceed 10 ppm_{dv}, corrected to 7% oxygen.

ii. The ammonia slip limit shall be met by maintaining the optimum urea injection flow rate at various operating loads. Appendix IV contains a synopsis of the Ammonia Slip Sampling during the initial performance test. AESPR shall use the results to determine the optimum urea injection flow rate at the load at which the boilers are operating. AESPR shall maintain records of the urea injection rate, available for inspection by EQB personnel.

(13) **Coal Consumption Limit**

i. The boilers shall not exceed the total coal consumption, with a sulfur content of 1% weight or less in the CFB boilers, of 1,866,677 tpy during any rolling period of 365 consecutive days. The coal consumption for any 365-day rolling period shall be calculated by adding the daily fuel consumption of the units to the total sum of fuel consumed by the units during the previous 364-days.

ii. AESPR shall keep daily records with the hours of operation, and the amount of coal used, available for inspection by EQB personnel.

(14) **Start Up and Shutdown Periods**

For the purposes of this permit, startup and shutdown shall be defined as:

i. **Startup** - Circulating Fluidized Bed (CFB) boiler startup is defined as the period beginning with initial use of the burners firing low sulfur distillate fuel oil (< 0.05% S) and ending at the time when the load has increased to 227.15 MW, when both CFB boilers are operating, or 113.58 MW, when a single CFB boiler is operating. The duration of the startup shall not exceed fourteen (14) consecutive hours for any given individual boiler startup.

ii. **Post-Outage Startup** - CFB boiler post-outage startup is defined as the period of time beginning with the initial use of the CFB's startup burner after new refractory is installed in the combustor. After the new refractory is installed, it must be dried by subjecting it to gradually increasing temperature. The post-outage startup shall be allowed up to twice per year for an average of one startup per boiler. The duration of the post-outage startup shall not exceed 50 consecutive hours for any given startup. The amount of fuel burned shall not exceed 4,200 gallons per hour, 85,000 gallons per day and a total of 175,000 gallons per startup.

iii. **Shutdown** - CFB boiler shutdown is defined as the period of time beginning with the load decreasing from 227.15 MW, when both CFB boilers are

operating, or 113.58 MW, when a single CFB boiler is operating, and ending when the bed material fluidizing air has been discontinued. The duration of the shutdown shall not exceed 8 consecutive hours for any given individual boiler shutdown.

iv. AESPR shall maintain records of the duration of the startup/shutdown periods and the fuel used during such periods.

(15) **Maximum Annual Capacity Factor**

i. AESPR shall not exceed a maximum annual capacity factor of 95% during any period of 12 consecutive months. Compliance will be demonstrated by limiting facility fuel use to a maximum of 40,966,709 MMBtu during any period of 12 consecutive months. AESPR shall maintain fuel use records (coal) to demonstrate compliance with this condition.

ii. **"Annual capacity factor"** means the ratio between the actual heat input to the steam generating units from fuel use during a period of 12 consecutive calendar months and the potential heat input to the steam generating units from fuels had the steam generating units been operated for 8,760 hours during that 12-month period at the maximum design heat input capacity of 4922.7 MMBtu/hr. Therefore, a maximum annual capacity factor of 95% means fuel use will not exceed 40,966,709 MMBtu during a period of 12 consecutive calendar months.

iii. AESPR shall monitor flue gas flow rate and CO_2 concentration to determine compliance with heat input limits.

(16) **Continuous Emission Monitoring (CEM)/Continuous Opacity Monitoring (COM) Requirements**

i. Prior to the date of startup and thereafter, AESPR shall install, calibrate, maintain, and operate the following continuous monitoring systems in each of the two flues of the fluidized bed combustion unit exhaust stack:

(A) Continuous emission monitoring (CEM) systems to measure stack gas NO_x (as measured NO_2) and SO_2 concentrations and a continuous opacity monitoring system. The systems shall meet EPA monitoring performance specifications (40 CFR Part 60.13 and 40 CFR Part 60, Appendix B, Performance Specifications 1, 2, and 3, and Appendix F).

(B) A continuous monitoring system to measure stack gas volumetric flow rates. The system shall meet EPA monitoring performance specifications (40 CFR Part 52, Appendix E). EPA may approve an alternative to this monitoring system, such as using monitored data for emission rates on a lb/MMBtu basis and calculated plant heat input data on a MMBtu/hr basis, provided that EPA deems that this procedure will produce representative data.

(C) A CEM system to measure CO and a continuous monitoring system to measure carbon dioxide or oxygen. These systems, at a minimum, shall meet EPA monitoring performance specifications of 40 CFR Part 60, Appendix B, Performance Specifications 3 and 4, and 40 CFR Part 60, Appendix F.

ii. AESPR conducted the performance evaluations for the CEMs, COMs and CMS. The specific dates are included in Appendix IV of this permit.

iii. The monitoring systems must meet all the requirements of the applicable performance specification test in order for the monitors to be certified.

(17) **Testing Requirements –** See section VII of this permit

2. EU-3 Limestone Processing Building

a. Summary of Permit Limits for EU-3

The following table contains a summary of the permit limitations for the limestone processing building EU-3. In case of conflict, the written conditions in section b. below shall prevail.

Condition	Parameter	Value	Units	Test Method	Method Frequency	Recordkeeping	Reporting Frequency
Operation Limit	Capacity Factor	50	Percent	Records of Hours of Operation	Daily	Logbook	Annual Compliance Certification
		4,380	hours (per calendar year)				

Condition	Parameter	Value	Units	Test Method	Method Frequency	Recordkeeping	Reporting Frequency
Limestone Dryer Opacity Limit	Opacity	7	percent (6-minute average)	Method 9	Annually or as requested by EPA or EQB When visible emissions problem is not corrected within 24 hours	Test Results (See Appendix IV)	60 days after the test Semiannually
				Visible emissions inspections	Weekly	Logbook	Semiannually
Particulate matter emission limit	PM, PM_{10}	0.095	lb/MMBtu	Method 5 Method 201A/ 202 Monitor baghouse pressure drop	Initial Stack Test or as requested by EPA or EQB Once per loading/unloading cycle	Test Results Record pressure drop in baghouse	60 days after the test Semiannual report Annual emissions
		1.24	lb/hr				
NOx emission limit	NOx (1 hr average)	0.15	lb/MMBtu	Method 7E	Initial Test or as requested by EPA or EQB	Test results	60 days after the test Annual Emissions
		1.95	lb/hr				
CO emission limit	CO (1 hr average)	0.02	lb/MMBtu	Method 10	Initial Test or as requested by EPA or EQB	Test results	60 days after the test Annual Emissions
		0.26	lb/hr				
SO_2 emission limit	SO_2 (1 hr average)	0.02	lb/MMBtu	Method 6C	Initial Test or as requested by EPA or EQB	Test results	60 days after the test Quarterly Excess emission report Annual Emissions
		0.26	lb/hr				
VOC emission limit	VOC (1-hr average)	0.01	lb/MMBtu	Method 25A	Initial Test or as requested by EPA or EQB	Test results	60 days after the test Annual Emissions
		0.13	lb/hr				
Fuel Use	Propane	604,140	gal/yr (365-day rolling period)	Record Fuel Use	Daily	Logbook	Monthly Annually
Maximum Sulfur Content	Sulfur	<20	ppm wt	Fuel Supplier Analysis	With each delivery	Certification provided by the supplier	Monthly (Rule 410 report)

b. Specific Conditions for EU-3

(1) **Subpart OOO—Standards of Performance for Nonmetallic Mineral Processing Plants**

i. The limestone processing building is subject to the Standards of Performance for Nonmetallic Mineral Processing Plants, 40 CFR part 60 Subpart OOO.

ii. Any transfer point on a conveyor belt or any other facility that is enclosed in a building must comply with the emission limits in paragraphs (a) or (b) of §60.672 of the 40 CFR, or the building enclosing the affected facility or facilities must comply with the following emission limits:

(A) Fugitive emissions from the building openings (excepts vents as defined in §60.671 of the 40 CFR) must not exceed 7 percent opacity; and

(B) Vents (as defined in §60.671 of the 40 CFR) in the building must meet the applicable stack emission limits and compliance requirements in Table 2 of Subpart OOO of the 40 CFR, and described next:

(i) The owner or operator must meet a PM limit of 0.05 g/dscm (0.022 gr/dscf).

(ii) The owner or operator must meet an opacity limit of 7 percent for dry control devices.

(2) **Operation of the Limestone Dryer**

i. The limestone dryer operation shall be limited to a 50% capacity factor, calculated on a calendar year basis or 4,380 hours per calendar year.

ii. The limestone dryer shall only burn propane.

iii. The limestone dryer shall utilize combustion controls to minimize air emissions.

iv. AESPR shall keep a daily record of the hours of operation available for inspection by EQB and EPA personnel.

(3) **Limestone Dryer Opacity Limit**

i. Opacity of emissions, as measured by Method 9 of the 40 CFR Part 60, shall not exceed 7 percent (six-minute average). However, AESPR may discharge visible emissions of an opacity up to 60 percent for a period of no more than 4 minutes in any consecutive 30-minutes interval, or up to 27 percent opacity during one six-minute set per hour, whichever is more stringent.

ii. AESPR shall contract an independent opacity reader, certified in a school endorsed by EPA or EQB, to perform one opacity reading in the stack of the limestone dryer, on an annual basis using Method 9 established in the 40 CFR part 60, Appendix A. The dryer shall be operating at the time of the opacity reading.

iii. AESPR shall provide the Board at least 15 days of prior written notification of the opacity reading, to afford the EQB the opportunity to have an observer present.

iv. AESPR shall submit to the Board a copy of the visible emissions reading report 60 days after the reading.

v. AESPR shall perform weekly visible emissions observations during the hours of the day with a minimal duration of six minutes whenever the emission unit is in operation. For such observation, AESPR will use as guidance the provisions of Method 9 of the 40 CFR Part 60 Appendix A. This weekly inspection shall consist in observing the stack for a period of six minutes (when the unit is in operation) to identify if there are visible emissions that are not water vapor. The person who performs the visible observations should be certified by a program endorsed by EPA or the EQB so that he/she had received the acceptable training by the EQB in order to identify if the unit is potentially exceeding the opacity limits stated by Rule 403 of the RCAP and/or any other applicable requirement.

vi. When the certified observer establishes that there exists the potential to exceed the opacity limit according to Rule 403 of the RCAP and/or any applicable requirement, AESPR shall verify that the equipment causing the visible emissions is operating in accordance with the manufacturer's specifications, best engineering practices and the permit conditions. AESPR shall take corrective measures immediately to eliminate any excess opacity and shall document the cause of the emissions with such elevated opacity, shall correct any deficiency and shall document the taken steps to correct any deficiency.

vii. If the corrective measures do not fix the opacity problem in 24 hours, the permittee shall perform a visible emission reading using Method 9 of the 40 CFR Part 60, Appendix A to determine compliance with Rule 403 of the RCAP and/or any other applicable requirement. The permittee shall hire an independent opacity reader certified by EQB to make this test. The tests shall be done during the hours of the day (until the problem has been corrected).

viii. All visible emissions observations shall be recorded in accordance with Method 9 of the 40 CFR Part 60, Appendix A.

ix. Any deviation to the opacity limits establishes in Rule 403 of the RCAP and/or any other applicable requirement must be reported to the EQB within 24 hours.

x. AESPR shall prepare and maintain a record indicating the dates and the results of the visible emissions observations performed available for inspection by the EQB personnel.

xi. AESPR shall submit a summary of the visible emissions readings along with the semi-annual report required in this permit. This report shall include a summary of the results of the readings and the beginning and ending hours and the dates in which the readings were performed. The report also shall include the total number of the visible emissions readings of visible emissions realized in that period for the units subject to this requirement. AESPR shall retain a copy of the report of the reading of visible emissions that include date and the hour of the reading by at least five (5) years, in compliance with the Rule 603(A)(4)(ii) of the RCAP.

xii. AESPR shall ensure that the employees are appropriately trained in all the operations of the emission units and should document the training provided.

xiii. AESPR shall keep a copy of the visible emissions reading reports including the date and time of the readings for at least five years, in compliance with Rule 603(A)(4)(ii) of the RCAP. However, the reports required by the PSD permit shall be kept for at least 10 years.

xiv. The EQB reserves the right to perform or to require to perform an opacity evaluation under Method 9 at any time during the hours of the day in which the equipment is operating with the purpose of demonstrating compliance with opacity limits.

(4) **Particulate Matter (PM), Particulate Matter under 10 Microns (PM_{10}) Emission Limit**

i. Emissions of PM shall not exceed 0.095 lb/MMBtu or 1.24 lb/hr, whichever is more stringent.

ii. Emissions of PM_{10} shall not exceed 0.095 lb/MMBtu or 1.24 lb/hour, whichever is more stringent.

iii. **Control Devices:** AESPR shall continuously operate baghouses for the control of PM and PM_{10} emissions at the limestone dryer.

iv. The control efficiency of particulate matter emissions shall be established during all particulate performance testing and shall be a minimum of 99% at all times of normal operation (daily average).

v. The permittee shall demonstrate compliance with the efficiency requirement by maintaining the pressure drop in the baghouses within the range recommended by the manufacturer.

vi. AESPR shall maintain records of the periodic measurements of baghouse pressure drop, available for inspection by EPA and EQB personnel.

vii. **Rule 406 of the RCAP** - According to Rule 406 of the RCAP, AESPR shall not cause nor permit the emission of particulate matter, from any equipment burning solid or liquid fuel, in excess of 0.3 pounds per million Btu. The limestone dryer is subject to a PM emission limit of 0.095 lb/MMBtu, which is most stringent than the emission limit in Rule 406 of the RCAP. Compliance with the PM emission limit included in this permit shall be deemed compliance with the emission limit in Rule 406 of the RCAP.

viii. AESPR shall demonstrate compliance with the PM/PM10 emission limit with the performance test results and by maintaining the pressure drop of the control device within the range established by the manufacturer.

(5) **Nitrogen Oxides (NO_x) Emission Limit**

i. Emissions of nitrogen oxides shall not exceed based on the average of three 1-hour stack performance tests 0.15 lb/MMBtu, or 1.95 lb/hour, whichever is more stringent.

ii. AESPR shall use the performance test results to demonstrate compliance with the NOx emission limit.

(6) **Carbon Monoxide (CO) Emission Limit**

i. Emissions of CO shall not exceed based on the average of three 1-hour stack performance tests 0.02 lb/MMBtu, or 0.26 lb/hour, whichever is more stringent.

ii. AESPR shall use the performance test results to demonstrate compliance with the CO emission limit.

(7) **Sulfur Dioxide (SO_2) Emission Limit**

i. Emissions of sulfur dioxide shall not exceed based on the average of three 1-hour stack performance tests 0.02 lb/MMBtu, or 0.26 lb/hour, whichever is more stringent.

ii. AESPR shall use the performance test results to demonstrate compliance with the SO_2 emission limit.

(8) **Volatile Organic Compounds (VOCs) Emission Limit**

i. Emissions of VOCs shall not exceed based on the average of three 1-hour stack performance tests 0.01 lb/MMBtu, or 0.13 lb/hour, whichever is more stringent.

ii. AESPR shall use the performance test results to demonstrate compliance with the VOC emission limit.

(9) **Fuel Type and Use**

i. AESPR will not exceed the total consumption of propane in the limestone dryer of 604,140 gal/year during any rolling period of 365 consecutive days. The fuel consumption for any 365-day rolling period shall be calculated by adding the fuel consumption of the unit every day to the total sum of fuel consumption of the previous 364 days.

ii. AESPR shall keep daily records with the amount of fuel used and sulfur content in the fuel, available for inspection by EQB personnel.

(10) **Maximum Sulfur Content in the Fuel**

i. The limestone dryer shall burn propane with a maximum total sulfur content less than 20 ppm per weight.

ii. AESPR shall submit a monthly report indicating on a daily basis the sulfur content in the propane burned in the limestone dryer and the amount of fuel used within the next 15 days of the next month following the one being reported, as required by Rule 410 of the RCAP. This report shall be addressed to the Data Validation and Mathematical Modeling Division of the Air Quality Area of the EQB and shall be available in the facility for review by the Board's technical personnel.

iii. AESPR may use a certification from the fuel supplier to demonstrate compliance with the sulfur content in the fuel requirement.

iv. AESPR shall keep daily records with the sulfur content in the propane used, available for inspection by EQB personnel.

(11) **Testing Requirements** – See Section VII of this permit

3. EU-4: Cooling Tower

a. Summary of Permit Limits for EU-4

The following table contains a summary of the permit limitations for the Cooling Tower EU-4. In case of conflict, the written conditions in section b. below shall prevail.

Condition	Parameter	Value	Units	Test Method	Method Frequency	Recordkeeping	Reporting Frequency
Operational Limit	Water throughput (12-month period)	225,000	gal/min	Records	Monthly	Logbook	Annual
		118,260	Mgal/yr				
Drift Eliminator	Drift Rate	0.001	Percent	HIBK method	Initial test	Test Results	60 days after the test
		2.25	gal/min				
PM emission limit	PM	15	lb/hr	Monitor TDS concentration to calculate PM /PM_{10} emissions	Quarterly	Logbook	Semiannually
PM_{10} emission limit	PM_{10}	0.33	lb/hr				
VOC emission limit	VOC	0.5	lb/hr	Air Stripping and Method 25A	During the first year of the permit	Keep a copy of the stack test results	60 days after the test

b. Specific Conditions for EU-4

(1) Operational Limit:

i. The total water tower throughput at the cooling tower shall not exceed 225,000 gallons per minute, equivalent to 118,260 Mgal/yr, during any consecutive 12-month period.

ii. AESPR shall keep monthly records of the recirculating water flow at the cooling tower, available for inspection by EQB's technical personnel.

(2) Control Devices: AESPR shall install and continuously operate the following air pollution controls: Drift eliminators for the control of particulates from the cooling tower.

(3) Drift Rate

i. The drift rate shall be limited to 2.25 gallons/minute (0.001% of circulating water flow). This level shall be achieved through the use of drift eliminators, which provide surface area upon which water droplets may impact and fall back into the cooling tower.

ii. The drift eliminators will be operated, maintained and inspected in accordance with manufacturer's recommendations and good engineering practices.

iii. AESPR shall use the performance test results to demonstrate compliance with the drift rate limitation.

(4) Particulate Matter (PM), Particulate Matter under 10 Microns (PM_{10}) Emission Limit

I Emissions of PM_{10} shall not exceed 0.33 lb/hour.

ii. Emissions of PM shall not exceed 15 lb/hour.

iii. PM emissions from the cooling tower are based on a total dissolved solids (TDS) concentration of 12,000 ppm. The circulating water shall be sampled quarterly to determine the total solids concentration. The total dissolved solids concentration shall be used to calculate the PM emissions from the cooling tower.

iv. AESPR shall maintain records of the periodic measurement of the TDS concentration, available for inspection by EQB personnel.

(5) Volatile Organic Compounds (VOC) Emission Limit

i. Emissions of VOC shall not exceed 0.5 lb/hour.

ii. AESPR shall perform a sampling of the cooling tower during the first year of the permit using air stripping and Method 25A, and/or other testing as necessary to corroborate the rate (in lb/hr) of VOC being emitted into the atmosphere from the cooling tower. (Rule 103(A) of the RCAP)

iii. A stack test protocol shall be submitted at least 30 days prior to the test for approval by EQB. This protocol shall contain the information described in Rule 106(C) of the RCAP.

iv. The Board shall be notified in writing 15 days prior to the performance test to allow EQB the opportunity to have an observer present. [Rule 106 (D) of the RCAP]

v. The permittee shall submit two copies with the results of the performance test within 60 days after the tests are done. The report shall include the information required by Rule 106 (E) of the RCAP.

vi. AESPR shall keep a copy of the tests results including the date and time of the tests for at least five years, in compliance with Rule 603(A)(4)(ii) of the RCAP.

vii. The Board reserves its right to require additional testing in order to demonstrate compliance with the VOC limit.

4. EU-5, EU-6, EU-7-1, EU-8-1, EU-9-1: Storage Tanks

a. Summary of Permit Limits for EU-5, EU-6, EU-7-1, EU-8-1 and EU-9-1

The following table contains a summary of the permit limitations for the storage tanks **EU-5, EU-6, EU-7-1, EU-8-1, and EU-9-1.** In case of conflict, the written conditions in section b. below shall prevail.

Condition	Parameter	Value	Units	Test Method	Method Frequency	Recordkeeping	Reporting Frequency
VOC emission limit for Startup tank	Turnovers VOC	7 83.8	N/A lb/yr	Logbook	Monthly or as needed	Records of tank throughput	Annual Emissions

Condition	Parameter	Value	Units	Test Method	Method Frequency	Recordkeeping	Reporting Frequency
VOC Emission Limit (All tanks, except Startup tank)	VOC	5	lb/yr	Logbook	Monthly	Records of tank throughput	Annual Emissions

b. Specific Conditions for EU-5, EU-6, EU-7-1, EU-8-1, EU-9-1

(1) AESPR shall have the following storage tanks:

i. 150,000-gallon startup fuel tank (EU-5)

ii. 2,000-gallon mobile equipment fuel tank (EU-6)

iii. 700-gallon diesel generator tank (EU-7-1)

iv. 300-gallon fire pump tank (EU-8-1)

v. 200-gallon emergency boiler feed pump tank (EU-9-1)

(2) **Turnovers**: There shall be a maximum of seven turnovers per year in the startup fuel tank, producing approximately 83.8 lb/year of VOC emissions (AP-42).

(3) The remaining tanks shall contain diesel fuel and shall emit less than 5 lb/yr of VOC (AP-42).

(4) AESPR shall demonstrate compliance by recording the throughput of the tanks, available to the EQB technical personnel for inspection upon request.

(5) **Rule 419 of the RCAP**

i. According to Rule 419(A) of the RCAP, the permittee shall not cause or permit the emission of 3 pounds per hour or 15 pounds of VOC in any one day from any article, machine, equipment or any other contrivance unless it is provided with a control system, pollution prevention and reduction mechanism or programs or both, as approved or required by the Board. [State enforceable only].

ii. According to Rule 419(D)(6)[10], storage tanks used to store VOC's with a capacity of less than 40,000 gallons are exempted from the rule provided such storage tanks are equipped with a conservation vent, a flame arrestor or any other equivalent control.

[10] The condition references Rule 419(D), which corresponds to Rule 419(F) in the Spanish version of the RCAP.

iii. Compliance with the emission limits included in the previous conditions shall be deemed compliance with Rule 419 of the RCAP.

5. EU-7, EU-8, EU-9 Emergency Equipment: Diesel generator, diesel power fire water pump, and emergency boiler feed pump

a. Summary of permit limitations applicable to the emergency equipment EU-7, EU-8, and EU-9

The following table contains a summary of the permit limitations applicable to all emergency equipment EU-7, EU-8, and EU-9. In case of conflict, the written conditions in the following section shall prevail.

Condition	Parameter	Value	Units	Test Method	Method Frequency	Recordkeeping	Reporting Frequency
Hours of operation	Hours	200	hours/year (each)	Logbook	Monthly	Logbook	Semi-annual
Maximum sulfur content in the fuel	Sulfur content	0.05 (Only for EU-7, EU-9)	% weight	Fuel analysis (ASTM)	For each fuel delivery	Analysis results	Monthly (Rule 410 of the RCAP) Quarterly
Opacity Limit	Opacity (6-minute average)	20	Percent	Visible emissions Method 9	Monthly When visible emissions are not corrected within 24 hours	Logbook Logbook	Semiannual 60 days after the Method 9 reading Semiannual
Fuel Use Limit	Fuel Used	15,560	gal/yr (Total, for all 3 units, 12-month rolling period)	Records of fuel used	Monthly	Logbook	Semiannual
40 CFR Part 60 Subpart IIII	Sulfur Content	15 or 0.0015 (For EU-8)	ppm or % by weight	Fuel Analysis (ASTM)	For each fuel delivery	Analysis results	Monthly (Rule 410 of the RCAP) Quarterly

b. Specific conditions applicable to the emergency equipment EU-7, EU-8, and EU-9

(1) The emergency equipment consists of a fire water pump driven by a diesel engine (EU-8), a diesel electric generator (EU-7), and a 430 hp emergency boiler feed pump driven by a diesel engine (EU-9). The equipment shall only be operated under the following conditions:

i. **Hours of Operation**: The maximum annual operating hours for each of the above-named equipment shall be 200-hours per calendar year, except during emergencies. This 200-hour allowance is intended to allow for proper maintenance of the equipment.

ii. The fire pump shall be used for firefighting activities when no electricity is available at the facility.

iii. The diesel generator shall be used during emergencies for critical plant functions (i.e. emergency lighting) when no electricity from PREPA's grid is available at the site (this situation is characterized as "black plant mode").

iv. The emergency boiler feed pump shall be used to pump cooling water into one or both boilers if one or both turbines trip unexpectedly and are unable to utilize the steam generated by the boilers. However, during routine testing and maintenance of the 430 hp emergency boiler feedwater pump diesel engine, the load on the engine shall be physically limited to less than 400 hp by operating procedures and the configuration of the associated equipment so that it complies with the emission rates listed in condition V.B.5.b.(1)(vii) below.

v. None of these three emergency equipments shall be used during a standard startup or shutdown of the facility as well as during any dispatch load level requested by PREPA.

vi. The emergency equipment shall only burn distillate oil with a maximum sulfur content of 0.05% by weight.[11]

vii. Emissions and total annual operating hours for the emergency equipment shall not exceed:

Pollutant	**Fire Pump (lb/hr)**	**Diesel Generator (lb/hr)**	**Emergency Boiler Feed Pump (lb/hr)**
NOx	1.78	14.58	12.34
CO	0.548	0.55	2.67
SO_2	0.06	0.29	0.82
PM_{10}	0.0069	0.68	0.82
VOC	0.0069	0.06	0.99
Annual Planned Operating Hours	200 hr	200 hr	200 hr

viii. AESPR shall measure the sulfur content of the fuel oil for each fuel delivery. The sulfur content of the fuel shall be measured by the most

[11] Except the fire pump, which shall comply with the fuel requirements of section 60.4207 of the 40 CFR.

current method applicable to fuel oil promulgated by the American Society for Testing and Materials (ASTM). The results of the testing shall be included in the quarterly reports. [PSD permit]

ix. AESPR shall record and maintain monthly records on the hours of operation for each emergency equipment, the sulfur content in the fuel, and the amount of fuel fired for each occurrence. All information shall be recorded in a permanent form suitable for inspection. The file shall be retained for at least ten years following the date of such measurement, calculation, and record.

(2) Opacity Limit - Opacity of emissions for the units EU-7, EU-8, EU-9 shall not exceed 20 percent (six-minute average). Nevertheless, and as specified under Rule 403(A) of the RCAP, AESPR may discharge visible emissions of an opacity up to 60 percent for a period of no more than 4 minutes in any consecutive 30-minutes interval.

(3) The EQB reserves the right to perform or to require AESPR to perform an opacity evaluation under Method 9 at any time during the hours of the day in which the units are operating with the purpose of demonstrating compliance with opacity limits.

(4) **Fuel consumption limit -** The total diesel fuel consumption, with a sulfur content of 0.05% weight or less in the fire pump (311 hp), the electricity generator for emergency use (670.5 hp) and the boiler feed pump shall not exceed 15,900 gal/yr during any consecutive 12-month rolling period. The fuel consumption for any consecutive 12-month rolling period shall be calculated by adding the fuel consumption of the units for every month to the total sum of the fuel consumption of the units for the previous 11 months.

(5) AESPR shall keep records with the hours of operation, diesel consumption and sulfur percent for the emergency equipment on a monthly basis for a 12-month rolling period, which shall be available at the facility for the EQB technical personnel upon request. Also, AESPR shall submit EQB a report with this information during the first 15 days of the next month following the one being reported.

(6) **Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40 CFR Part 60 Subpart IIII) – [EU- 8 Fire Pump]**

i. The fire pump shall comply with all the applicable requirements of the 40 CFR Part 60 Subpart IIII. Shall maintain a copy of the

applicability determination with the 40 CFR Part 60 Subpart IIII at the facility for at least 5 years.

ii. The fire pump shall comply with the emission standards in Table 4 of the Subpart IIII, for all pollutants, according to the 40 CFR §60.4205

iii. AESPR shall operate and maintain the fire pump according with the manufacturer written specifications or procedures developed for AESPR which shall be approved by the manufacturer, over the entire life of the engine. [40 CFR §60.4206]

iv. The maximum sulfur content of the diesel fuel fired in the fire pump shall not exceed:

a. 15 ppm or 0.0015% weight for engines with a displacement of less than 30 liters per cylinder. [§60.4207(b) and §80.510(b) of the 40 CFR]

v. Prior to startup of the engine, AESPR must install a non-resettable hour meter in the fire pump, consistent with §60.4209 of the 40 CFR.

6. Coal Handling Activities (EU-10C, EU-12, EU-13, EU-14), including conveying and transfer systems, loading/unloading, crushing and storage activities.

a. Summary of Permit Limits for EU-10C, EU-12, EU-13 and EU-14

The following table contains a summary of the permit limitations for the coal handling activities EU-10C, EU-12, EU-13 and EU-14. In case of conflict, the written conditions in section b. below shall prevail.

Condition	Parameter	Value	Units	Test Method	Method Frequency	Recordkeeping	Reporting Frequency
Opacity Limit	Opacity (6-minute average)	10 (points subject to §60.253) 20 (all other emission points)	percent	Method 22 Method 9	Monthly Initial Test As needed, or as requested by EPA or EQB	With each reading Test results (See Appendix IV)	Semiannual (RCAP) 60 days after Method 9 reading Quarterly (PSD) Semiannual (RCAP)

Condition	Parameter	Value	Units	Test Method	Method Frequency	Recordkeeping	Reporting Frequency
PM_{10} emission limit	PM_{10}	1.13	tons/yr	Logbook	Monthly	Records of Material Handled	Annual Emissions Report
PM Control Efficiency	PM	99	percent	Pressure drop across the filter	Weekly	Records of each filter inspection	Semiannual (RCAP)

b. Specific Conditions for the Emission Units EU-10C, EU-12, EU-13 and EU-14

(1) Standards of Performance for Coal Preparation Plants

i. AESPR is subject to the Standards of Performance for Coal Preparation Plants, in 40 CFR Part 60 Subpart Y. The provisions of subpart Y apply to any of the following affected facilities in coal preparation plants: thermal dryers, pneumatic coal-cleaning equipment (air tables), coal processing and conveying equipment (including breakers and crushers), coal storage systems, and coal transfer and loading systems, as defined in 40 CFR §60.251. AESPR shall comply with the applicable requirements of this regulation.

ii. According to the 40 CFR §60.252(a), AESPR shall not cause to be discharged into the atmosphere from any thermal dryer gases which:

(A) contain PM in excess of 0.070 g/dscm (0.031 gr/dscf)

(B) exhibit 20 percent opacity or greater.

iii. According to the 40 CFR §60.253(a), AESPR shall not cause to be discharged into the atmosphere from the pneumatic coal cleaning equipment, any gases that:

(A) contain PM in excess of 0.040 g/dscm (0.017 gr/dscf); and

(B) exhibit 10 percent opacity or greater.

iv. According to the 40 CFR §60.254(c), AESPR 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.

(2) Visible Emissions Observations

i. AESPR must conduct a monthly 1-minute visible emissions inspection of each affected source in accordance with Method 22 of the 40 CFR Part 60, Appendix A. The tests shall be conducted during daytime using a visible emission reader certified by a program endorsed by the EPA or the EQB when the affected source is in operation.

ii. If the reader determines that there are visible emissions, AESPR shall take immediate corrective actions to eliminate the emissions and shall conduct another visual inspection.

iii. If the second visual inspection indicates that there are visible emissions, AESPR shall conduct a 6-minute opacity inspection using Method 9 of the 40 CFR Part 60, Appendix A. The Method 9 test must begin within one hour of any observation of visible emissions.

iv. If no visible emissions are observed in six consecutive monthly tests for any affected source, AESPR may decrease the frequency of testing from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, AESPR must resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

v. Any deviation to the opacity limits established in this permit must be reported to the EQB within 24 hours.

vi. AESPR shall prepare and maintain a record indicating the dates and the results of the visible emissions observations inspections performed available in the facility at all times to be reviewed by the EQB personnel.

vii. The EQB reserves the right to perform or to require to perform an opacity evaluation under Method 9 at any time during the hours of the day in which the source is operating with the purpose of demonstrating compliance with opacity limits.

viii. AESPR shall submit to EQB a summary of the visible emissions observations reports every six months, in the semiannual report required by condition 15, section III of this permit.

ix. AESPR shall ensure that the employees performing the visible emission observations are appropriately trained in all the operations of the emission units and should document the training provided.

(3) Coal Handling Operations (EU-10C) (from PSD permit)

i. The coal transfer from ship to boom shall be enclosed.

ii. The boom transfer at the surge hopper shall be controlled by a dust suppression system.

iii. All conveyors shall be enclosed and sealed.

iv. The two transfer houses shall be enclosed and equipped with dust suppression systems.

v. Enclosed stacking tubes shall be utilized.

vi. The 30-day inactive coal pile shall be earth-covered and grassed.

vii. The transfer at 10 reclaim hoppers shall be enclosed in an underground tunnel.

viii. The conveyor transfer to crusher, the crusher, the crusher transfer to conveyor, and the powerhouse bag filters shall be enclosed and connected to fabric filters.

ix. Total PM_{10} fugitive emissions from coal handling shall not exceed 1.13 tons/year.

(4) Control Equipment

i. The baghouses/dust collectors used to control particulates emissions from these emission units shall have a minimum efficiency of 99%.

ii. The permittee shall demonstrate compliance with the efficiency requirement by maintaining the pressure drop in the baghouses within the range recommended by the manufacturer.

iii. AESPR shall inspect the baghouse pressure drop weekly to verify that the control equipment is working according to manufacturer's specifications. The permittee shall maintain records of these periodic measurements available for inspection by EPA and EQB personnel.

(5) Additional Recordkeeping Requirements

i. AESPR shall keep and maintain a monthly record of the type and amount handled by the emission unit.

ii. AESPR shall retain records of coal throughput and opacity observations for a period of 10 years from the date of the monitoring sample, measurement, report, or application. These records shall be made available to EQB personnel for inspection upon request.

iii. AESPR shall maintain records of all the coal that is delivered to the facility, by ship or by truck, where the received date, type of material and amount of material in tons per year is recorded. Also, AESPR shall keep records with the purchase orders or receipts of this material.

7. EU-10L, EU-15, EU-16, EU-17 Limestone Handling Operations, including conveying, storing and loading/unloading operations

a. Summary of Permit Limits for EU-10L, EU-15, EU-16 and EU-17

The following table contains a summary of the permit limitations for the Limestone Handling Activities **EU-10L, EU-15, EU-16 and EU-17** In case of conflict, the written conditions in section b. below shall prevail.

Condition	Parameter	Value	Units	Test Method	Method Frequency	Recordkeeping	Reporting Frequency
Opacity Limit	Opacity (6-minute average)	10 (EU-10L) 7 (EU-15, EU-16 and EU-17)	percent	Method 22 Method 9	Monthly Initial Stack Test As needed, or as requested by EPA or EQB	With each reading Test results	Semiannual 60 days after Method 9 reading Quarterly (PSD) Semiannual (RCAP)
Particulates emission limit	PM_{10}	1.66	tons/yr	Logbook	Monthly	Records of Material Handled	Annual Emissions Report
PM Control Efficiency	PM	99	percent	Pressure drop across the filter	Weekly	Records of each filter inspection	Semiannual (RCAP)

b. Specific conditions for EU-10L, EU-15, EU-16 and EU-17

(1) **Standards of Performance for Nonmetallic Mineral Processing Plants (EU-10L, EU-15, EU-16 and EU-17)**

i. AESPR is subject to the Standards of Performance for Nonmetallic Mineral Processing Plants (40 CFR Part 60 Subpart OOO). The provisions of this subpart are applicable to the following affected facilities in the nonmetallic mineral processing plant: each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station, as defined in 40 CFR §60.671. AESPR shall operate in compliance with this regulation.

ii. Affected facilities with capture systems used to capture and transport particulate matter to a control device must meet an opacity limit of 7% for dry control devices.

iii. Fugitive emissions from affected facilities without capture systems and for fugitive emissions escaping capture systems - AESPR must meet a fugitive emissions limit of 10 percent opacity for grinding mills, screening operations, bucket elevators, transfer points on belt conveyors, bagging operations, storage bins, enclosed truck or railcar loading stations or from any other affected facility, as defined in §§60.670 and 60.671 of the 40 CFR.

iv. Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements Subpart OOO of the 40 CFR Part 60.

v. If any transfer point on a conveyor belt or any other affected facility is enclosed in a building, then each enclosed affected facility must comply with the emission limits in paragraphs (a) and (b) of §60.672 of the 40 CFR, or the building enclosing the affected facility or facilities must comply with the following emission limits:

(A) Fugitive emissions from the building openings (except for vents as defined in §60.671) must not exceed 7 percent opacity; and

(B) Vents (as defined in §60.671 of the 40 CFR) in the building must meet the applicable stack emission limits and compliance requirements in Table 2 of this subpart, as described next:

a. the owner or operator must meet a PM limit of 0.05 g/dscm (0.022 gr/dscf)' and

b. the owner or operator must meet an opacity limit of 7 percent for dry control devices.

(2) Visible Emissions Observations

i. AESPR must conduct a monthly 1-minute visible emissions inspection of each affected source in accordance with Method 22 of the 40 CFR Part 60, Appendix A). The tests shall be conducted during daytime using a visible emission reader certified by a program endorsed by the EPA or the EQB when the affected source is in operation.

ii. If the reader determines that there are visible emissions, AESPR shall take immediate corrective actions to eliminate the emissions and shall conduct another visual inspection.

iii. If the second visual inspection indicates that there are visible emissions, AESPR shall conduct a 6-minute opacity inspection using Method 9 of the 40 CFR Part 60 Subpart 60, Appendix A. The Method 9 test must begin within one hour of any observation of visible emissions.

iv. If no visible emissions are observed in six consecutive monthly tests for any affected source, AESPR may decrease the frequency of testing from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, AESPR must resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

v. Any deviation to the opacity limits established in this permit must be reported to the EQB within 24 hours.

vi. AESPR shall prepare and maintain a record indicating the dates and the results of the visible emissions observations inspections performed available in the facility at all times to be reviewed by the EQB personnel.

vii. The EQB reserves the right to perform or to require to perform an opacity evaluation under Method 9 at any time during the hours of the day in which the source is operating with the purpose of demonstrating compliance with opacity limits.

viii. AESPR shall submit to EQB a summary of the visible emissions observations reports every six months, in the semiannual report required by condition 15, section III of this permit.

ix. AESPR shall ensure that the employees performing the visible emission observations are appropriately trained in all the operations of the emission units and should document the training provided.

(3) Control Devices

i. The baghouses/dust collectors used to control particulates emissions from these emission units shall have a minimum control efficiency of 99%.

ii. The permittee shall demonstrate compliance with the efficiency requirement by maintaining the pressure drop in the control equipment within the range recommended by the manufacturer.

iii. AESPR shall inspect the baghouse pressure drop weekly to verify that the control equipment is working according to the manufacturer's specifications. The permittee shall maintain records of these periodic measurements available for inspection by EPA and EQB personnel.

(4) Handling Operations

i. Limestone Handling (if Delivered by Ship) (EU-10L)

(A) The limestone transfer from ship to boom shall be enclosed.

(B) The boom transfer at the surge hopper shall be controlled by a dust suppression system.

(C) All conveyors shall be enclosed and sealed.

(D) The two transfer houses shall be enclosed and equipped with dust suppression systems.

(E) An enclosed stacking tube shall be utilized.

(F) The 150-day pile of limestone shall be enclosed.

(G) The conveyor transfer to crusher and the crusher shall be enclosed and connected to a fabric filter.

(H) The pneumatic conveyor shall be connected to a fabric filter.

(I) The transfer at reclaim hopper shall be enclosed in an underground tunnel.

(J) The PM_{10} fugitive emissions from limestone handling (delivered by ship and truck) shall not exceed 1.66 tons/yr.

(5) Recordkeeping Requirements

i. AESPR shall keep and maintain monthly records of the limestone throughput in these emission units. These records shall be made available to EQB for inspection upon request.

ii. AESPR shall keep records of all material (limestone) that is delivered to the facility, by ship or by truck, where the received date, type of material and amount in tons/year is recorded. Also, AESPR shall keep records with the purchase orders or receipts of this material.

8. Lime Silos and Handling, EU-18

a. Summary of Permit Limits for EU-18

The following table contains a summary of the permit limitations for the lime silos and handling **EU-18.** In case of conflict, the written conditions in section b. below shall prevail.

Condition	Parameter	Value	Units	Test Method	Method Frequency	Recordkeeping	Reporting Frequency
Opacity Limit	Opacity (6-minute average)	20	percent	Method 22 Method 9	Monthly Once, during the first year of the permit. As needed, or as requested by EPA or EQB	With each reading Test results	Semiannual (RCAP) 60 days after Method 9 reading Quarterly (PSD) Semiannual (RCAP)
Particulates emission limit	PM_{10}	0.0445	tons/yr	Logbook	Monthly	Records of Material Handled	Annual Emissions Report
PM Control Efficiency	PM	99	percent	Pressure drop across the filter	Weekly	Records of each filter inspection	Semiannual (RCAP)

b. Specific conditions EU-18

(1) Opacity Limit

(i) Opacity Limit - Opacity of emissions for the unit EU-18 shall not exceed 20 percent (six-minute average). Nevertheless, and as specified under Rule 403(A) of the RCAP, AESPR may discharge visible emissions of an opacity up to 60 percent for a period of no more than 4 minutes in any consecutive 30-minutes interval.

(2) Visible Emissions Observations

i. AESPR must conduct a monthly 1-minute visible emissions inspection of each emission point in accordance with Method 22 of the 40 CFR Part 60, Appendix A. The tests shall be conducted during daytime using a visible emission reader certified by a program endorsed by the EPA or the EQB when the affected source is in operation.

ii. If the reader determines that there are visible emissions, AESPR shall take immediate corrective actions to eliminate the emissions and shall conduct another visual inspection.

iii. If the second visual inspection indicates that there are visible emissions, AESPR shall conduct a 6-minute opacity inspection using Method 9 of the 40 CFR Part 60 Subpart 60, Appendix A. The Method 9 test must begin within one hour of any observation of visible emissions.

iv. If no visible emissions are observed in six consecutive monthly tests for any affected source, AESPR may decrease the frequency of testing from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, AESPR must resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

v. Any deviation to the opacity limits established in this permit must be reported to the EQB within 24 hours.

vi. AESPR shall prepare and maintain a record indicating the dates and the results of the visible emissions observations inspections performed available in the facility at all times to be reviewed by the EQB personnel.

vii. The EQB reserves the right to perform or to require to perform an opacity evaluation under Method 9 at any time during the hours of the day in which the source is operating with the purpose of demonstrating compliance with opacity limits.

viii. AESPR shall submit to EQB a summary of the visible emissions observations reports every six months, in the semiannual report required by condition 15, section III of this permit.

ix. AESPR shall ensure that the employees performing the visible emission observations are appropriately trained in all the operations of the emission units and should document the training provided.

(3) Control Devices

i. AESPR shall install and shall continuously operate the following air pollution controls: a baghouse for the control of PM and PM_{10} emissions at the lime storage silo.

ii. The baghouses/dust collectors used to control particulates emissions from these emission units shall have a minimum control efficiency of 99%.

iii. The permittee shall demonstrate compliance with the efficiency requirement by maintaining the pressure drop in the control equipment within the range recommended by the manufacturer.

iv. AESPR shall inspect the baghouse pressure drop weekly to verify that the control equipment is working according to the manufacturer's specifications. The permittee shall maintain records of these periodic measurements available for inspection by EPA and EQB personnel.

(4) Lime Handling Operations

i. The pneumatic conveyor shall be connected to a fabric filter.

ii. The screw feeder shall be completely enclosed.

iii. Total PM_{10} fugitive emissions from lime handling shall not exceed 0.0445 ton/year.

(5) Recordkeeping Requirements

i. AESPR shall keep and maintain monthly records of the lime throughput in the emission unit. These records shall be made available to EQB for inspection upon request.

ii. AESPR shall keep records of all material (llimestone) that is delivered to the facility, by ship or by truck, where the received date, type of material and amount in tons/year is recorded. Also, AESPR shall keep records with the purchase orders or receipts of this material.

9. EU-10A, EU-19, EU-20 Ash/Aggregate Handling

a. Summary of Permit Limits for EU-10A, EU-19 and EU-20

The following table contains a summary of the permit limitations for the ash/aggregate handling activities EU-10A, EU-19 and EU-20. In case of conflict, the written conditions in section b. below shall prevail.

Condition	Parameter	Value	Units	Test Method	Method Frequency	Recordkeeping	Reporting Frequency
Opacity Limit	Opacity (6-minute average)	20	percent	Method 22 Method 9	Monthly Initial Stack Test (See Appendix IV) As needed, or as requested by EPA or EQB	With each reading Test results	Semiannual (RCAP) 60 days after Method 9 reading Quarterly (PSD) Semiannual (RCAP)
Particulates emission limit	PM_{10}	0.70 (EU-10A) 0.70 (EU-19) 0.70 (EU-20)	tons/yr	Logbook	Monthly	Records of Material Handled	Quarterly (PSD) Semiannual (RCAP) Annual Emissions Report
PM Control Efficiency	PM	99	percent	Pressure Drop across the filter	Weekly	Records of each filter inspection	Semiannual (RCAP)
Rule 407 of the RCAP (EU-20)	PM	The value shall be determined using the table from Rule 407 (a) of the RCAP	lb out/ lb in-hr	Records	Weekly	Weekly	Semiannual (RCAP)

b. Specific Conditions for EU-10A, EU-19 and EU-20

(1) Visible emissions observations

i. Opacity of emissions for the emission units EU-10A, EU-19 and EU-20 shall not exceed 20 percent (six-minute average). Nevertheless, and as specified under Rule 403(A) of the RCAP, AESPR may discharge visible emissions of an opacity up to 60 percent for a period of no more than 4 minutes in any consecutive 30-minutes interval.

ii. AESPR must conduct a monthly 1-minute visible emissions inspection of each emission point in accordance with Method 22 of the 40 CFR Part 60, Appendix A). The tests shall be conducted during daytime using a visible emission reader certified by a program endorsed by the EPA or the EQB when the affected source is in operation.

iii. If the reader determines that there are visible emissions, AESPR shall take immediate corrective actions to eliminate the emissions and shall conduct another visual inspection.

iv. If the second visual inspection indicates that there are visible emissions, AESPR shall conduct a 6-minute opacity inspection using Method 9 of the 40 CFR Part 60 Subpart 60, Appendix A. The Method 9 test must begin within one hour of any observation of visible emissions.

v. If no visible emissions are observed in six consecutive monthly tests for any affected source, AESPR may decrease the frequency of testing from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, AESPR must resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

vi. Any deviation to the opacity limits established in this permit must be reported to the EQB within 24 hours.

vii. AESPR shall prepare and maintain a record indicating the dates and the results of the visible emissions observations inspections performed available in the facility at all times to be reviewed by the EQB personnel.

viii. The EQB reserves the right to perform or to require to perform an opacity evaluation under Method 9 at any time during the hours of the day in which the source is operating with the purpose of demonstrating compliance with opacity limits.

ix. AESPR shall submit to EQB a summary of the visible emissions observations reports every six months, in the semiannual report required by condition 15, section III of this permit.

x. AESPR shall ensure that the employees performing the visible emission observations are appropriately trained in all the operations of the emission units and should document the training provided.

(2) Ash Handling

i. The fly ash pneumatic conveyor, the fly ash silo to mixer, the bed ash pneumatic conveyor, the bed ash silo to mixer transfer, the batch mixer, and the transfer into truck area shall be enclosed and sealed.

ii. The ash rock processing lifts shall be wetted and compacted.

iii. The truck travel to spread and crush area, the transfer from truck area, the ash rock lift fracture area, the ash rock storage wind erosion, and the bulldozing area shall be wetted.

iv. The reclaim hopper shall be underground and enclosed.

v. All conveyors shall be enclosed and sealed.

vi. Total PM_{10} fugitive emissions from ash handling shall not exceed 0.70 ton/year (including emissions from AOS-1).

vii. Trucks may be used to haul unmixed bed ash and fly ash, conditioned ash (bed and fly ash mixed and wet) and manufactured aggregate offsite for on island beneficial uses. If so, AESPR shall implement precautions to minimize fugitive emissions.

(3) **Control equipment**

i. The baghouses/dust collectors used to control particulates emissions from these emission units shall have a minimum control efficiency of 99%.

ii. The permittee shall demonstrate compliance with the efficiency requirement by maintaining the pressure drop in the control equipment within the range recommended by the manufacturer.

iii. AESPR shall inspect the baghouse/dust collector pressure drop weekly to verify that the control equipment is working according to the manufacturer's specifications. The permittee shall maintain records of these periodic measurements available for inspection by EPA and EQB personnel.

(4) **Rule 407 of the RCAP – Process Sources (EU-20)**

i. The permittee shall determine the maximum amount of emission of particulate matter in a process source using the table in Rule 407 (A) of the RCAP. AESPR shall not cause or permit the emissions of particulate matter in any one-hour period from any process source in excess of the amount shown in the table for the process weight rate allocated to that source. [Rule 407 of the RCAP].

ii. The permittee shall demonstrate compliance with the previous requirements by maintaining the pressure drop in the dust collectors within the range recommended by the manufacturer.

(5) Additional Recordkeeping

i. AESPR shall keep and maintain monthly records of the ash/aggregate produced in the facility. These records shall be made available to EQB personnel upon request.

C. **Other requirements**

1. Coal Sampling

a. Coal samples shall be taken and analyzed monthly to determine ash content (% by weight); sulfur content (% by weight); and heat value (Btu per lb). These shall be measured by the most current methods applicable to coal promulgated by the American Society for Testing and Materials (ASTM). Reports are to be submitted to EPA and EQB every calendar quarter.

b. AESPR shall take a representative compound sample of all coal shipments and submit for analysis once every 6 months to verify constituents of coal in order to verify emission limits for other regulated pollutants identified in section IV of this permit.

c. **Coal Lead Content** – The lead content of the coal/fuel oil shall be monitored such that the total annual lead emissions from the facility do not exceed the PSD significance level of 0.6 tons per year. AESPR shall demonstrate, at least annually starting with the 400th day after facility startup and, no longer

than each 365th day thereafter that lead emissions are below the PSD significance level. The lead content of the fuels shall be measured using the most current applicable ASTM method. Since the lead annual emission limit in section IV of this permit this permit is more stringent than the PSD significance level, therefore compliance with the emission limit under this permit constitutes compliance with PSD.

d. To comply with the previous condition, AESPR shall monitor the lead content of the coal and oil on a monthly basis. The permittee shall maintain records with this information available for inspection by EQB personnel. [Rule 603(A)(3) of the RCAP)]

e. **Coal Fluorine Content -**The fluorine content of the coal shall be monitored on a monthly basis such that the total annual fluoride emissions from the facility do not exceed 9.8 tons per 12-month rolling average calculated every month. The fluorine content of the coal shall be measured using the most current applicable ASTM method. AESPR shall maintain records with this information available for inspection by EQB personnel.

2. Ash Sampling

a. AESPR shall take a representative sample of the bed and fly ash to perform a TCLP analysis (Toxicity Characteristic Leaching Procedures), and a total metal analysis (including at least the metal HAPs identified in section IV of this permit) at least once per year. AESPR shall keep records with the test results, available for inspection by EQB technical personnel. (Rule 103 of the RCAP, state enforceable only).

b. AESPR shall submit a copy of the ash sampling results in the Annual Compliance Certification required by condition 7 in Section III of this permit.

Section VI - Alternate Operating Scenarios (AOS)

A. Under this permit, the following alternate operating scenarios are authorized

1. AOS –1: Transportation of ash/aggregate by truck from the ash/ aggregate yard or storage area [EU-10A-1]

a. This alternate scenario consists of ash/aggregate shipment by truck from the ash/aggregate storage area or yard to off-site, on-island locations. The normal operating scenario consists of ash/aggregate shipment by ship (EU-10A).

b. For this alternate scenario, AESPR shall comply with the visible emissions requirement, and the ash handling requirement included for the normal operating scenario EU-10A.

c. AESPR shall keep and maintain monthly records of the ash/aggregate handled under this alternate scenario. Also, AESPR shall keep records of the emission calculation performed to demonstrate compliance with the emission limit from the ash handling requirements required by condition V.B.9.b.(2)(vi) of this permit.

2. AOS-2: Limestone delivery by truck, unloading and bulldozing (EU-11)

a. This alternate scenario consists of delivery of limestone by truck. The normal scenario consists of delivery of limestone by ship (EU-10L).

b. Specific Conditions for this AOS (from PSD).

(1) The 150-day pile of limestone shall be enclosed.

(2) The conveyor transfer to crusher and the crusher shall be enclosed and connected to a fabric filter.

(3) The pneumatic conveyor shall be connected to a fabric filter.

(4) The transfer at reclaim hopper shall be enclosed in an underground tunnel.

(5) The PM_{10} fugitive emissions from limestone handling (delivered by ship and truck) shall not exceed 1.66 tons/year.

c. AESPR shall keep and maintain monthly records of the amount of limestone delivered by truck, where the received date, type of material, and amount in tons/yr is recorded. Also AESPR shall keep records with the purchase orders or receipts of this material.

d. AESPR shall keep records of the emission calculation performed to demonstrate compliance with the emission limits applicable to this AOS.

e. For this alternate scenario, AESPR shall comply with the visible emissions observations requirement, and the ash handling requirement included for the normal operating scenario (EU-10L).

3. AOS-3: Transport of ash to aggregate production area by truck (EU-20A)

a. This alternate scenario consists of the transport of ash to the aggregate production area by truck. The normal operating scenario consists of the transportation of ash to the aggregate production area by conveyor (EU-20).

b. For this alternate scenario, AESPR shall comply with the visible emissions observations requirement and the applicable ash handling requirements included for the normal operating scenario (EU-20).

c. AESPR shall keep and maintain monthly records of the ash handled under this alternate scenario, including date, type of material and amount of material handled in tons/year.

4. AOS-4: Transport of ash/aggregate by truck from the ash storage silos (EU-10A-2)

a. This alternate scenario consists of ash/aggregate shipment by truck from the ash storage silos to off site, on-island locations. The normal operating scenario consists of ash/aggregate shipment by ship (EU-10A).

b. AESPR shall keep and maintain monthly records of the ash/aggregate handled under this alternate scenario. Also, AESPR shall keep records of the emission calculation performed to demonstrate compliance with the emission limitations included in condition V.B.9.b.(2)(vi) of this permit.

c. For this alternate scenario, AESPR shall comply with the visible emissions requirement, and the ash/aggregate handling requirement included for the normal operating scenario EU-10A.

B. AESPR shall record in a logbook, contemporaneously with making a change from one operating scenario to another authorized under this permit, the scenario under which it is operating. This logbook must be kept at the facility at all times, available for inspection by EQB personnel.

Section VII Testing Requirements

A. Performance tests

1. AESPR conducted performance tests for SO_2, NOx, PM, PM_{10}, CO, VOCs, lead, fluorides, opacity, sulfuric acid mist, and fugitive emissions. All performance tests were conducted at the maximum operating capacity of the unit(s) being tested and/or other loads specified by EPA using the Quality Assurance Project Plan approved by EPA. AESPR already complied with the initial Performance Test requirements as established in the PSD permit. Please refer to Appendix IV for the actual dates of the initial stack tests.

2. Additional performance tests may be required at the discretion of the US-EPA and/or EQB for any or all of the above pollutants. If additional tests are required:

   a. All performance tests shall be conducted at the maximum operating capacity of the unit(s) being tested and/or other loads specified by EPA and/or EQB.

   b. At least 60 days prior to actual testing, AESPR shall submit to the EPA and EQB a Quality Assurance Project Plan detailing methods and procedures to be used during the performance stack testing. A Quality Assurance Project Plan that does not have EPA and EQB approval may be grounds to invalidate any test and require a re-test.

   c. AESPR shall use the following test methods, or a test method which would be applicable at the time of the test and detailed in a test protocol approved by EPA and EQB:

      a. Performance tests to determine the stack gas velocity, sample area, volumetric flow rate, molecular composition, excess air of flue gases, and moisture content of flue gas shall be conducted using 40 CFR Part 60, Appendix A, Methods 1, 2, 3, and 4.

      b. Performance tests for the emissions of NO_x shall be conducted using 40 CFR Part 60, Appendix A, Method 7E.

      c. Performance tests for the emissions of SO_2 shall be conducted using 40 CFR Part 60, Appendix A, Method 6C.

d. Performance tests for the emissions and control efficiency of PM shall be conducted using 40 CFR Part 60, Appendix A, Method 5.

e. Performance tests for the emissions of PM_{10} shall be conducted using 40 CFR Part 51, Appendix M, Method 201 (exhaust gas recycle procedure) or Method 201A (constant flow rate procedure) and Method 202.

f. Performance tests for the emissions of CO shall be conducted using 40 CFR Part 60, Appendix A, Method 10.

g. Performance tests for the emissions of volatile organic compounds shall be conducted using 40 CFR Part 60, Appendix A, Method 25A and Method 18 (take the difference between the two results).

h. Performance tests for the emissions of fluorides shall be conducted using 40 CFR Part 60, Appendix A, Method 13B.

i. Performance tests for the emissions of sulfuric acid mist shall be conducted using 40 CFR Part 60, Appendix A, Method 8.

j. Performance tests for the emissions of lead shall be conducted using 40 CFR Part 60, Appendix A, Method 29.

k. Performance tests for the drift rate on two of the cooling tower cells shall be conducted using the isokinetic sampling system with the heated beak-pack style method (HBIK) to confirm the specified drift rate of 2.25 gallons/minute.

l. Performance tests for the visual determination of fugitive emissions from the coal, limestone, and ash handling shall be conducted using 40 CFR Part 60, Appendix A, Method 22.

m. Performance tests for the visual determination of the opacity of emissions from the stack shall be conducted using 40 CFR Part 60, Appendix A, Method 9 and the procedures stated in 40 CFR Part 60.11.

3. Test results indicating that emissions are below the limits of detection shall be deemed to be in compliance.

4. Additional performance tests may be required at the discretion of the EPA and/or EQB for any or all of the above pollutants.

5. For performance test purposes, sampling ports, platforms and access shall be provided by AESPR on the combustion exhaust system in accordance with 40 CFR Part 60.8(e).

6. Results of emission testing must be submitted to EPA and EQB within 60 days after completion of performance tests.

7. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test.

Section VIII. Additional Recordkeeping and Reporting Requirements

1. All records required to be maintained by this permit shall be kept for a period of at least 5 years, or 10 years (for records required that are also required to be maintained by the facility's PSD permit).

2. All reports required by this permit shall be submitted to the Air Quality Area Manager at the address in Section III.43 of this permit. The reports required by the PSD permit shall also be submitted to:

Chief, Air Compliance Branch
Division of Enforcement and Compliance Assistance
U.S. Environmental Protection Agency
Region 2
290 Broadway - 21st Floor
New York, New York 10007-1866

Copies of the reports shall also be submitted to:

a. Region 2 CEM Coordinator
U.S. Environmental Protection Agency
Region 2
Air and Water QA Team
Monitoring and Assessment Branch
2890 Woodbridge Avenue - MS-102
Edison, New Jersey 08837-3679

b. Director, Caribbean Environmental Protection Division
U.S. Environmental Protection Agency
Region 2
Centro Europa Building
1492 Ponce de Leon Avenue, Suite 417
Santurce, Puerto Rico 00907-4127

3. AESPR shall submit a written report to EPA and EQB of the results of all monitor performance specification tests conducted on the monitoring system(s) within 45 days of the completion of the tests. The continuous emission monitors must meet all the requirements of the applicable performance specification test in order for the monitors to be certified.

4. AESPR shall submit a written report of all excess emissions to EPA and EQB for every calendar quarter. All quarterly reports shall be postmarked by the 30th day following the end of each quarter and shall include the information specified below:

   a. The magnitude of excess emissions computed in accordance with 40 CFR Part 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions.

   b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions for each fluidized bed combustion unit. The nature and cause of any malfunction (if known) and the corrective action taken or preventive measures adopted shall also be reported.

   c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

   d. When no excess emissions have occurred or the CEM system has not been inoperative, repaired, or adjusted, such information shall be stated in the report.

   e. Results of quarterly monitor performance audits, as required in 40 CFR Part 60, Appendix F.

5. Excess emissions shall be defined as:

   a. any consecutive 24-hour period during which the average emission of NO_x, as measured by the CEM system, exceeds the corresponding mass or concentration emission limit set for NO_x in section V.B.1.b.(6) of this permit.

   b. any eight-hour period during which the average emission of CO, as measured by the CEM system, exceeds the corresponding mass or concentration emission limit set for CO in section V.B.1.b.(7) of this permit.

c. any 3-hour period during which the average emission of SO_2, as measured by the CEM system, exceeds the corresponding mass or concentration emission limits set for SO_2 in section V.B.1.b.(8) of this permit.

d. any 6-minute period during which the average opacity, as measured by the CEM system, exceeds 20% opacity, except for one 27% opacity per each one-hour period.

6. For the purposes of this permit, excess emissions indicated by the CEM systems, except during startup or shutdown, shall be considered violations of the applicable emission limits.

7. AESPR shall maintain a file of all measurements, including CEM system performance evaluations; all CEM systems or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 40 CFR Part 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least ten years following the date of such measurement, maintenance, reports, and records.

8. Emissions in excess of the applicable emission limit listed under section V.B.1.b. of this permit, during periods of startup and shutdown, shall not be considered a violation of the applicable emission limit.

9. AESPR shall keep and update as needed the following records:

a. AESPR shall keep readily accessible records of fire-fighting activities related to research or training.

b. AESPR shall maintain records to show when air pollution control equipment is not operating and the reasons for not operating (during startup, shutdown or malfunction periods).

10. Pursuant to section 60.7 (b) of the 40 CFR, AESPR shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative, for units subject to the 40 CFR Part 60.

11. AESPR shall maintain records of all measurements, including CEM system performance evaluations; all CEM systems or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 40 CFR Part 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least five years (except records required by

the PSD permit, which will be retained for at least 10 years) following the date of such measurement, maintenance, reports, and records.

12. The Board may, at its discretion or as required by EPA, require AESPR to perform additional reporting to ensure compliance with the terms and conditions of this permit. [Rule 603(a)(5)(iii) of the RCAP]

13. Any deviations from the permit requirements according to conditions 16 and 17, section III of this permit shall be reported to:

    Chief, Inspection and Compliance Division
    Air Quality Area
    Environmental Quality Board
    P.O. Box 11488
    San Juan, PR 00910
    787-767-8181

Section IX - Insignificant Emission Units

Note: The following list of insignificant activities was provided by the permittee for a better understanding of its operations and layout. Since there is no requirement to update this list, activities may have changed since this filing; however, AESPR must include the list for insignificant activities, which are exempted because of size or production rate, and some may need a construction permit under Rule 203 of the RCAP.

Emission Unit ID	Description (Basis for exemption)
Two 5,073 gal turbine lube oil storage tanks	Appendix B(1), B(3)(ii)(N) of the RCAP. Also exempt by Rule 206 (F)(4) of the RCAP.
1000-gal used lube oil storage tank	Appendix B(1), B(3)(ii)(N) of the RCAP. Also exempt by Rule 206 (F)(4) of the RCAP.
Urea storage in bags and urea feed system	Appendix B(1) of the RCAP and Appendix B.3.ii.P of the RCAP. (Emissions less than 1 ton per year of PM)
Magnesium oxide storage silo	Appendix B(1) of the RCAP and Appendix B.3.ii.P of the RCAP. (Emissions less than 1 ton per year of PM)

Emission Unit ID	Description (Basis for exemption)
Sodium carbonate (soda ash) storage silo	Appendix B(1) of the RCAP and Appendix B.3.ii.P of the RCAP. (Emissions less than 1 ton per year of PM)
Propane storage tanks	Appendix B(1) of the RCAP and Appendix B.3.ii.P of the RCAP (Emissions less than 1 ton per year)

Section X - Permit Shield

A. As specified under Rule 603(D) of the RCAP, compliance with the conditions of the permit shall be deemed compliance with any applicable requirement as of the date of permit issuance, but only if such applicable requirement is included and specifically identified in the permit. Moreover, the permittee shall be deemed in compliance with any other requirement specifically identified in the permit as "Non Applicable".

1. Non Applicable Requirements

Non - applicable requirements		
State	**Federal**	**Reason**
	40 CFR Part 60 Subpart Kb, Standards for Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 [EU-5]	See Section X, Part (B) of this Permit
	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, 40 CFR Part 60 Subpart IIII [EU-7, EU-9]	See Section X, Part (B) of this Permit
	National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers, 40 CFR Part 63 Subpart Q [EU-4]	See Section X, Part (B) of this Permit

Non - applicable requirements		
State	**Federal**	**Reason**
	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR Part 63, Subpart DDDDD	See Section X, Part (B) of this Permit
	40 CFR Part 64 – Compliance Assurance Monitoring, 40 CFR Part 64	See Section X, Part (B) of this Permit
	40 CFR Part 82 Subpart B – Protection of Stratospheric Ozone: Servicing of Motor Vehicle Air Conditioners	See Section X, Part (B) of this Permit
	40 CFR Part 82 Subpart E –Protection of Stratospheric Ozone: The Labeling of Products Using Ozone-Depleting Substances	See Section X, Part (B) of this Permit
	Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units, 40 CFR Part 60 subpart Db [EU-1, EU-2]	See Section X, Part (B) of this Permit
	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR Part 60 Subpart Dc [EU-1, EU-2]	See Section X, Part (B) of this Permit
	Standards of Performance for Storage Vessels For Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced after June 11, 1973, and prior to May 19, 1978, 40 CFR Part 60 Subpart K [EU-5]	See Section X, Part (B) of this Permit

2. Reasons for Non - Applicability

Coding for Non Applicability	
Code	**Reason**
40 CFR Part 60 Subpart Kb, [EU-5]	The tank has a capacity greater than or equal to 151 m^3, and stores a liquid with a maximum true vapor pressure less than 3.5 kPa.
40 CFR Part 60 Subpart IIII [EU-7, EU-9]	The engines were not constructed, modified or reconstructed after July 11, 2005.

Coding for Non Applicability	
Code	**Reason**
40 CFR Part 63 Subpart Q [EU-4]	The cooling tower is not operated with chromium-based water treatment chemicals.
40 CFR Part 63 Subpart DDDDD [EU-1, EU-2]	According to §63.7491 of the 40 CFR, electric utility steam generating units (EUSGU's, as defined in §63.7575 of the 40 CFR), including a unit covered by 40 CFR Part 60 Subpart Da, are not subject to this subpart. The rule was vacated and remanded by the Court of Appeals for the District of Columbia Circuit on June 8, 2007. A revised rule was proposed on June 4, 2010. As proposed, a EUSGU is still not subject to the regulation.
40 CFR Part 64	According to §64.2(b) of the 40 CFR, the requirements of this subpart shall not apply to emissions limitations or standards proposed by the Administrator after November 15, 1990, pursuant to section 111 or 112 of the Act (Boilers are subject to 40 CFR Part 60 Subpart Da, under section 111 of the Act)
40 CFR Part 82 Subpart B	Does not apply at the time of the permit issuance because AESPR does not perform reparations to motor vehicles air conditioners involving ozone-depleting refrigerants (or regulated substitute substance).
40 CFR Part 82 Subpart E	Does not apply at the time of the permit issuance because AESPR does not transport, store, sell or produce ozone-depleting Class I or Class II substances with the intention of introducing them to interstate commerce.
40 CFR Part 60 subpart Db [EU-1, EU-2]	According to §60.40b of the 40 CFR Part 60, steam generating units meeting the applicability requirements under subpart Da (40 CFR Part 60) are not subject to this subpart).
40 CFR Part 60 Subpart Dc [EU-1, EU-2]	According to §60.40c, subpart Dc applies to steam generating units with a design capacity of 100MMBtu/hr or less, but greater than or equal to 10 MMBtu/hr. The units at AESPR are bigger than 100 MMBtu/hr.
40 CFR Part 60 Subpart K [EU-5]	The tank construction commenced after the year 2000.

B. The permit shield covers any alternate scenario as long as it is defined and allowed under the conditions of this permit and a construction permit.

Section XI - Permit Approval

By virtue of the authority conferred upon the Environmental Quality Board by the Public Policy Environmental Act, Law No. 416, September 22, 2004, as amended, and after verifying the administrative record and compliance with the Uniform Administrative Procedure Act, Law No. 170, August 12, 1988, as amended, the Clean Air Act, the Public Policy Environmental Act and the Regulation for the Control of Atmospheric Pollution, the Environmental Quality Board approves this permit subject to all the terms and conditions herein established.

In San Juan, Puerto Rico, **October 31, 2011.**

ENVIRONMENTAL QUALITY BOARD

/s/
Reynaldo Matos Jiménez
Associate Member

/s/
Wanda García Hernández
Alternate Member

APPENDIXES

Appendix I - Definitions and Abbreviations

I. Definitions:

1. **Permittee-**Person and/or entity to which the Puerto Rico Environmental Quality Board has emitted an Operating Permit for an Emission Source under Title V.
2. **Regulation-**Regulation for the Control of Atmospheric Pollution of the Environmental Quality Board.
3. **Responsible Official-**As defined in the Regulation for the Control of Atmospheric Pollution of the Environmental Quality Board.
4. **Title V-**Title V of the Clean Air Act (42 U.S.C. 7661)

II. Abbreviations

1. **AOS –** Alternate Operating Scenario
2. **BF-** Bag Filter
3. **Btu-**British Thermal Unit
4. **CEMS –** Continuous Emission Monitoring System
5. **CERCLA –** Comprehensive Environmental Emergency Response, Compensation & Liability Act
6. **CFB –** Circulating Fluid Bed
7. **CFR-**United States Code of Federal Regulations
8. CI – Compression Ignition
9. **CMS –** Continuous Monitoring System
10. **CO-**Carbon Monoxide
11. **COMS –** Continuous Opacity Monitoring System
12. **CTM –** Conditional Test Method
13. **DC-** Dust Collector
14. **DS –** Dust Suppression
15. **dscf -** dry standard cubic feet
16. **EPA-**Environmental Protection Agency
17. **EQB-**Puerto Rico Environmental Quality Board
18. **ESP –** Electrostatic Precipitator

19. **FF-** Fabric Filter
20. **gph –** gallons per hour
21. **H_2SO_4** – Sulfuric Acid
22. **HAP –** Hazardous Air Pollutant
23. **HF –** Hydrogen Fluorides
24. **HHV** – High Heating Value
24. **HIBK** – Heated beak Pack Style Method
25. **kPa** - kilopascal
25. **lb** - pounds
26. **LLV –** Low Heating Value
27. **MMBtu –** Millions Btu
28. **Mn -** Manganese
29. **NAAQS-**National Ambient Air Quality Standards
30. **NAICS** - North American Industry Classification System
31. **ND –** Not Detected
32. **NH_3** - Ammonia
33. **Ni -** Nickel
34. **NO_x -**Nitrogen oxides
35. **P –** Phosphorus
36. **PM –** particulate matter
37. **PM_{10}-**Particulate matter whose particulate diameter has a size of aerodynamic mass equal or less than ten (10) microns
38. **ppm -** parts per million
39. **ppm_v –** parts per million by volume
40. **ppm_{vd} –** parts per million by volume, dry basis
41. **PREPA** – Puerto Rico Electric Power Authority
42. **PSD** – Prevention of Significant Deterioration
43. **QA/QC-**Quality Assurance/ Quality Control
44. **RATA** – Relative Accuracy Test Audit
45. **RCAP-**Regulations for the Control of Atmospheric Pollution of the Environmental Quality Board

46. RICE - Reciprocating Internal Combustion Engine
47. **RMP –** Risk Management Program
48. SI – Spark Ignition
49. **SIC-**Standard Industrial Classification
50. **SNCR –** Selective Non-Catalytic Reduction
51. **SO_2-**Carbon Dioxide
52. **tpy** – ton per year
53. **VF –** Vent Filter
54. **VOC-**Volatile Organic Compound
52. **wt -** weight

Appendix II – Control Devices Descriptions

Emission point	Control device ID	Description	Regulated pollutant	Efficiency (%)	Basis of Emission Estimate
EP-1 and EP-2	CD-1-1 and CD-2-1	Circulating Fluidized Bed Combustion with Limestone Injection for SO_2 Control, Low Temperature Combustion and Staged Combustion for NO_x Control	PM	> 99	E (Manufacturer Data)
	CD-1-2 , CD-2-2	Non-selective catalytic reduction using urea injection	SO_2	98.79[12]	
	CD-1-3 , CD-2-3	Circulating dry scrubbers with lime injection			
	CD-1-4, CD-2-4	Electrostatic Precipitators			
EP-3	CD-3-1 and CD-3-2	Fabric filter	PM_{10}	99	E (Manufacturer Data)
EP-4	CD-4-1	Drift eliminator	PM_{10}	Drift rate = 0.001% of circulating flow	E (Manufacturer Data)
EP-13A	CD-13A	Enclosure and dust collector (DC1)	PM, PM_{10}	99	D (Engineering estimate) and C (AP-42 13.2.4-3)
EP-14B	CD-14B	Enclosure and dust collector (DC2)	PM, PM_{10}	99	D (Engineering estimate) and C (AP-42 13.2.4-3)
EP-15C	CD-15C	Enclosure in tunnel and fabric filter	PM, PM_{10}	99	D (Engineering estimate) and C (AP-42 13.2.4-3)
EP-16A2	CD-16A2	Enclosure and dust collector	PM, PM_{10}	99	D (Engineering estimate) and C (AP-42 13.2.4-3)
EP-17	CD-17	Vent filter on surge hopper	PM, PM_{10}	99	D (Engineering estimate) and C (AP-42, 11.12-4)
EP-17A	CD-17A	Bag Filters (Filter 800A and 800B)	PM, PM_{10}	99	D (Engineering estimate) and C (AP-42, 11.12-4)

[12] When burning worst-case coal only. Based on coal feed and 100% conversion of S to SO_2

Emission point	Control device ID	Description	Regulated pollutant	Efficiency (%)	Basis of Emission Estimate
EP-18	CD-18	Fabric Filter	PM, PM_{10}	99	D (Engineering estimate) and C (AP-42, 11.12-4)
EP-19A	CD-19A	Enclosed and Sealed with FF (FA-1-025 and FA-2-025)	PM, PM_{10}	99	D (Engineering estimate) and C (AP-42, 11.12-4)
EP-19B	CD-19B	Enclosed and Sealed with FF (Filter 806)	PM, PM_{10}	99	D (Engineering estimate) and C (AP-42 13.2.4-3)
EP-19D	CD-19D	Enclosed and Sealed with FF (Filter 806)	PM, PM_{10}	99	D (Engineering estimate) and C (AP-42 13.2.4-3)

Appendix III–Fugitive Emissions Description and PM/PM_{10} Emission Control Techniques for Fugitive Emissions

Emission Point	Description	Control Device ID[13]	Type	Minimum Design % Efficiency
EF-10A1	Automatic transfer from the ship's coal to the hopper in the dock	CD-10A1	Enclosed	99
EF-10A2	Ship Unloading Conveyor	CD-10A2	Enclosed	99
EF-10B1	Conveyor transfer to loading hopper	CD-10B1	DS	90
EF-10B2	Transfer from loading hopper to TC1	CD-10B2	Enclosed with DS	99
EF-10C1	Conveyor (TC1)	CD-10C1	Enclosed and sealed	99
EF-10C2	Transfer house (TH1)	CD-10C2	Enclosed with DS	99
EF-10F	Conveyor (TC2)	CD-10F	Enclosed and sealed	99
EF-10E1	Transfer house (TH2)	CD-10E1	Enclosed with DS	99
EF-10E7	Transfer from TC4 to LS1	CD-10E7	Enclosed with DS	99
EF-10G1	Conveyor (TC3)	CD-10G1	Enclosed and sealed	99
EF-10G2	Transfer from conveyor TC3 to TC4	CD-10G2	Enclosed with DS	99
EF-10G3	Transfer house (TH3)	CD-10G3	Enclosed with DS	99
EF-10H1	Conveyor to stacking tubes	CD-10H1	Enclosed and sealed	99
EF-10H2	2 stacking tubes, one operating	CD-10H2	Enclosure tube	75
EF-10I	Conveyor to stacking tube (LS1)	CD-10I	Enclosed and sealed	99
EF-10J	Stacking tube (ST3)	CD-10J	Enclosed	99
EF-10J1	Reclaim hopper	CD-10J1	Wetting	98
EF-10J2	Transfer from feeder breaker (FB1) to conveyor (MA1)	CD-10J2	Wetting	98
EF-10J3	Conveyor (MA1) (ash rock)	CD-10J3	Enclosed and sealed	99
EF-10J5	Conveyor (MA2)	CD-10J5	Enclosed and sealed	99
EF-10J6	Conveyor (TC5)	CD-10J6	Enclosed and sealed	99

[13] Represents Control Techniques for fugitives emissions

Emission Point	Description	Control Device ID[13]	Type	Minimum Design % Efficiency
EF-10J7	Transfer house (TH1A)	CD-10J7	Enclosed with DS	99
EF-10J8	Feeder breaker	CD-10J8	Enclosed	98
EF-10J9	Radial stacker conveyor (AR)	CD-10J9	Wetting	98
EF-10J10	Radial stacker transfer point (AR)	CD-10J10	Wetting	98
EF-10J11	Truck loading at radial stacker or aggregate yard (AR)	CD-10J11	Wetting	98
EF-10J12	Truck traffic on unpaved road (AR)	CD-10J12	Wetting	70
EF-10J13	Truck traffic on paved rock	CD-10J13	Street sweeping	55
EF-10J14	Truck loading at ash silo	CD-10J14	Vented to filter	99
EF-10J15	Truck traffic on paved road	CD-10J15	Street Sweeping	55
EF-10K1	Transfer from TC1 to TC6	CD-10K1	Enclosed with DS	99
EF-10K2	Conveyor (TC6)	CD-10K2	Enclosed and sealed	99
EF-10L	Transfer from conveyor TC6 to ship loader boom	CD-10L	Enclosed with DS	99
EF-10M1	Ship loading conveyor (SC1)	CD-10M1	Enclosed	99
EF-10M2	Transfer to ship from ship loading conveyor (SC1)	CD-10M2	Enclosed	99
EF-11A	Truck traffic to storage	CD-11A	Street sweeping	55
EF-11B	Limestone unloading	CD-11B	Inside Dome	99
EF-11C	Bulldozing from truck unloading to pile	CD-11C	Inside Dome	
EF-12A	20-day active storage pile	None	None	N/A
EF-12B	30-day inactive storage pile	CD-12B	Covered with manufactured aggregate	100
EF-12D	Transfer from reclaim hoppers to conveyor CC1	CD-12D	Enclosed	99
EF-12E	Conveyor (CC1)	CD-12E	Enclosed	99

Emission Point	Description	Control Device ID[13]	Type	Minimum Design % Efficiency
EF-14A	Powerhouse conveyor (CC2)	CD-14A	Enclosed and sealed	99
EF-14C	Tripper conveyor	CD-14C	Enclosed inside building	99
EF-15A	60,000 ton limestone storage pile in dome	CD-15A	Inside dome	99
EF-15B	Bulldozing to reclaim hopper	CD-15B	Inside Dome	99
EF-16A	Conveyor to limestone process building (LS1)	CD-16A	Enclosed	99
EF-18B	Truck traffic to storage	CD-18B	Street sweeping	55
EP-19C	Bed ash pneumatic conveyor (bed ash separators)	CD-19C	Enclosed	99
EF-20A	Batch Mixer	CD-20A	Enclosed	99
EF-20A1	Transfer from batch mixer to conveyor (BCA1)	CD-20A1	Wetting	98
EF-20B	Transfer into truck	CD-20B	Enclosed	98
EF-20C	Truck travel to spread & crush	CD-20C	Wetting	90
EF-20D	Transfer from truck	CD-20D	Wetting	98
EF-20E	Ash rock processing lifts	CD-20E	Wetting and Compaction	98
EF-20F	Ash rock lift fracture area	CD-20F	Wetting	98
EF-20G	Ash rock storage wind erosion	CD-20G	Wetting	98
EF-20H	Bulldozing	CD-20H	Wetting	98
EF-20I	Conveyor (BCA1)	CD-20I	Enclosed and sealed	99
EF-20J	Transfer from conveyor BCA1 to radial stacker conveyors	CD-20J	Wetting	98
EF-20K	Radial stacker conveyors (up to 5 in series)	CD-20K	Wetting	98
EF-20L	Radial stacker conveyor transfer points (5)	CD-20L	Wetting	98

Appendix IV – Summary of Initial Performance Test Results

A. EU-1 and EU-2

Parameter	Limit	Tested Value		Units	Method	Date of testing
		Boiler #1	Boiler #2			
NOx	0.10	0.071	0.074	lb/mmBtu	EPA 7E	10/02
	246.1	204.1	213.3	lb/hr		
	57	47.2	49.4	ppm@7%O_2		
SO_2	0.022	0.00037	0.0013	lb/MMBtu	EPA 6C	10/02
	54.1	0.91	3.22	lb/hr		
	9.0	0.15	0.54	ppm@7%O_2		
PM	0.015	0.013	0.005	lb/MMBtu	EPA 5	10/02 (Unit 1) 06/03 (Unit 2)
	36.9	31.1	11.6	lb/hr		
PM-10	0.03	0.023	0.019	lb/MMBtu	EPA 201A/202	10/02
	73.8	59.0	0.019	lb/hr		
CO	0.10	0.015	0.01646.7	lb/MMBtu	EPA 10	10/02
	246.1	43.1	45.4	lb/hr		
	94	16.4	17.3	ppm@7%O_2		
VOC	0.0047	0.00066	0.00012	lb/MMBtu	EPA 25A	10/02
	11.6	1.71	0.284	lb/hr		
	7.70	1.43	0.253	ppm@7%O_2		
H_2SO_4	0.0024	0.0018	0.006	lb/MMBtu	EPA 8	07/03 (Unit 1) 10/02 (Unit 2)
	5.9	4.72	1.58	lb/hr		
	0.64	0.490	0.169	ppm@7%O_2		
Lead		3.20E-06	4.10E-06	lb/MMBtu	EPA 29	10/02
Fluorides	0.000478	<0.0003	<0.0003	lb/MMBtu	EPA 13B	10/02
	1.18	<0.663	<0.837	lb/hr		
Ammonia	10	2.38	3.16	ppm@7%O_2	CTM-027	10/02
Opacity	20	5.2	4.4	%	EPA 9	

B. EU-3 Limestone Dryer

Parameter	Limit	Tested Value	Limit Units	Test Method	Date of Testing
PM	0.095	0.081	lb/mmBtu	5	9/2002
	1.24	0.942	lb/hr		9/2002

Parameter	Limit	Tested Value	Limit Units	Test Method	Date of Testing
SO_2	0.02	0.0	lb/mmBtu	6C	9/2002
	0.26	0.0	lb/hr		9/2002
NOx	0.15	0.044	lb/mmBtu	7E	9/2002
	1.95	0.520	lb/hr		9/2002
CO	0.02	0.0	lb/mmBtu	10	9/2002
	0.26	0.0	lb/hr		9/2002
VOC	0.01	0.0001	lb/mmBtu	25A	9/2002
	0.13	0.0006	lb/hr		9/2002
PM_{10}	0.095	0.59	lb/mmBtu	EPA	3/2003
	1.24	0.66	lb/hr	201A/202	3/2003
Opacity	7	0.0	%	EPA 9	9/2002

C. Cooling Tower

Parameter	Limit	Tested Value	Limit Units	Test Method	Date of Testing
Drift rate	0.001	0.00022	percent of circulating water flow	EPA 50	7/2002

D. Summary of Opacity Observation at Miscellaneous Sources

Emission Source	Opacity Limit	Opacity Tested Value	Date of Testing
Coal Crusher	20%	0.0%	10/2002
Power Building Dust Collector (CC3)	20%	0.0%	10/2002
Limestone Silo "A"	7%	0.0%	10/2002
Limestone Silo "B"	7%	0.0%	10/2002

Emission Source	Opacity Limit	Opacity Tested Value	Date of Testing
Limestone Reclaim Baghouse	7%	0.0%	10/2002
Ash Silo East	20%	0.0%	10/2002
Ash Silo West	20%	0.0%	10/2002
Ash Silo Unloading	20%	28.3%	10/2002

E. **Synopsis of Ammonia Slip Sampling**

Emission Unit	Boiler Load (%)	Urea injection rate (gph)	Concentration ppm@7% O_2[14]	Date of Test
EU-1	74	71	2.02	10/1 to10/9/2002
	100	148	2.38	
	64	95	5.00	
	64	150	7.36	
	85	150	3.90	
	85	71	2.28	
	50	99	12.75	
	53	68	9.41	
	53	80	4.33	
	52	120	7.29	
EU-2	64	88	3.68	10/3 to 10/9/2002
	65	150	5.39	
	85	150	3.98	
	85	102	3.26	
	100	134	1.92	
	100	120	3.16	
	53	148	8.96	
	53	174	5.91	

F. CMS Initial Certification

Type	Pollutant	Method	Date of Testing
CEMS	O_2/CO_2	RATA (EPA 3A)	10/2/02 EU-1 10/4/02 EU-2
CEMS	NO_X	RATA (EPA 7E)	10/2/02 EU-1 10/4/02 EU-2

[14] Permit Limit of 10 ppm @ 7%O_2

Type	Pollutant	Method	Date of Testing
CEMS	CO	RATA (EPA 10)	10/2/02 EU-1 10/4/02 EU-2
CEMS	SO_2	RATA (EPA 6C)	10/2/02 EU-1 10/4/2 EU-2
CMS	Volumetric Flow	RATA	9/30 to 10/4/02 EU-1 10/2 to 10/8/02 EU-2
COMS	Opacity	Certification (40 CFR, Appendix B, Specification 1)	4/02 (Calibration Drift Tests from 9/26 to 10/4/02)