

# State of New Jersey Department of Environmental Protection

CHRIS CHRISTIE

Division of Air Quality

BOB MARTIN

Commissioner

KIM GUADAGNO Lt. Governor Division of Air Quality
Bureau of Air Permits

401 E. State Street, 2<sup>nd</sup> floor, P.O. Box 27
Trenton, NJ 08625-0027

#### Air Pollution Control Operating Permit Significant Modification and Preconstruction Approval

Permit Activity Number: BOP100003

Program Interest Number: 73242

Mailing Address	Plant Location
James Maiz Sr. VP RC Cape May Holdings LLC 24 waterway Ave - Ste 800 Woodlands, TX 77380	B L ENGLAND GENERATING STATION 900 N Shore Rd Upper Twp Cape May County, New Jersey

Initial Operating Permit Approval Date: Significant Modification Approval Date: Operating Permit Expiration Date:

December 30, 2005 December 16, 2010 December 29, 2010

This significant modification is approved and issued under the authority of Chapter 106, P.L. 1967 (N.J.S.A. 26:2C-9.2). The equipment at the facility must be operated in accordance with the requirements of this permit.

This approval, in response to your application, merges the provisions of the previously approved operating permit and the changes from this significant modification into a single comprehensive permit that replaces the one previously issued. This significant modification incorporates changes to compliance plan for emission unit, U1, and U2 per Amendments to ACO.

Equipment at the facility referenced by this significant modification is covered by the permit shield, pursuant to the provisions of N.J.A.C. 7:27-22.17. However, this permit shield does not cover physical changes which were undertaken at the facility after March 3, 2003 and for which the facility did not seek an applicability determination for the Prevention of Significant Deterioration rule, codified at 40 CFR 52.21 (PSD), from the United States Environmental Protection Agency (USEPA). The issuance of this permit should not in any way be construed as a determination by the Department that the PSD rules do not apply. Any questions on applicability of PSD should be directed to USEPA Region II, Air Programs Branch, 21st Floor, 290 Broadway, New York, NY 10007-1866 (Phone: 212-637-4074). Pursuant to N.J.A.C. 7:27-22.33(e), this significant modification consists of both a preconstruction approval and operating permit approval. This operating permit does not include compliance schedules as part of the approved compliance plan.

The permittee shall submit to the Department and to the EPA on forms provided by the Department, at the addresses given below, a periodic compliance certification, in accordance with N.J.A.C. 7:27-22.19 and the schedule for compliance certifications set forth in the compliance plan in this operating permit. The annual compliance certification reporting period will cover the calendar year ending December 31. The annual compliance certification is due to the Department and the EPA within 60 days after the end of each calendar year during which this permit was in effect. Forms provided by the Department can be found on the Department's website at: <a href="http://www.nj.gov/dep/enforcement/compliancecertsair.htm">http://www.nj.gov/dep/enforcement/compliancecertsair.htm</a>.

The annual compliance certification report may also be considered as your six month deviation report for the period from July 1 through December 31 which is due by January 30 of each year, as required by paragraph 13 in Section F, General Provisions and Authorities, of this permit, if the annual compliance certification is submitted by January 30.

New Jersey Department of Environmental Protection Air & Environmental Quality Compliance & Enforcement 401 East State Street, P. O. Box 422 Trenton, New Jersey 08625-0422

United States Environmental Protection Agency, Region II Air Compliance Branch 290 Broadway New York, New York 10007-1866 New Jersey Department of Environmental Protection Air and Environmental Quality Compliance & Enforcement Southern Regional Enforcement Office One Port Center, 2 Riverside Drive Camden, New Jersey 08103

Your facility's current approved operating permit and any previous versions (e.g. superseded, expired, or terminated) are now available for download in the PDF format at: http://www.nj.gov/dep/aqpp/. After accessing the website, click on "Approved Operating Permits" listed under "Reports" and then type in the Program Interested (PI) Number as instructed on the screen. A RADIUS file for your permit, containing Facility Specific Requirements (Compliance Plan), Inventories, and Compliance Schedules (if needed), can be obtained by contacting your permit writer. Upon importing this information into your personal computer with RADIUS software, you will have up-to-date information in RADIUS format. RADIUS software, instructions, and help are available at the Department's website at <a href="https://www.state.nj.us/dep/aqpp">www.state.nj.us/dep/aqpp</a>. We also have an Operating Permit Help Line available from 9:00 AM to 4:00 PM daily, where you may speak to someone about any questions you may have. The Operating Permit Help Line number is 609-633-8248.

If, in your judgment, the Department is imposing any unreasonable condition of approval in this permit\_modification action, you may contest the Department's decision on the modification and request an adjudicatory hearing pursuant to N.J.S.A. 52:14b-1 et seq. and N.J.A.C. 7:27-22.32(a). All requests for an adjudicatory hearing must be received in writing by the Department within 20 calendar days of the date you receive this letter. The request must contain the information requested in N.J.A.C. 7:27-1.32 and the information on the enclosed Administrative Hearing Request Checklist and Tracking Form.

The permittee is responsible for submitting a timely and administratively complete operating permit renewal application. The application is considered timely if it is received at least 12 months before the expiration date of the operating permit. To be deemed administratively complete, an application for renewal of the operating permit shall include all of the information required by the application form for the renewal and the information required pursuant to N.J.A.C. 7:27-22.30(d). However, consistent with N.J.A.C. 7:27-22.30(c), the permittee is encouraged to submit the renewal application at least 15 months prior to expiration of the operating permit, so that the Department can notify the applicant of any deficiencies in the application. This will allow the permittee to correct any deficiencies, and to better ensure that the application is administratively complete by the renewal deadline. Only applications which are timely and administratively complete will be eligible for coverage by an application shield. The renewal application can be found at our website, <a href="http://www.state.nj.us/dep/aqpp/downloads/forms/OPRenewal.PDF">http://www.state.nj.us/dep/aqpp/downloads/forms/OPRenewal.PDF</a>.

Permittees that are subject to Compliance Assurance Monitoring (CAM), pursuant to 40 CFR 64, shall develop a CAM Plan for modified equipment as well as existing sources. Details of the rule and guidance on how to prepare a plan can be found at EPA's website: <a href="www.epa.gov/ttn/emc/cam.html">www.epa.gov/ttn/emc/cam.html</a>. In addition, CAM Plans must be included as part of the permit renewal application. Permittees that do not submit a CAM Plan may have their modification applications denied, pursuant to N.J.A.C. 7:27-22.3.

If you have any comments or questions regarding this permit approval, please call your permit writer, Piyush Desai, at (609) 292-1313.

Approved by:

Yogesh Doshi

Air Quality Permitting Element

Enclosure

CC:

S. Riva, USEPA Region II

R. Wormley - SRO (w/o enclosure)]

P. Desai (w/o enclosure)

A. Shawl (w/o enclosure) -

B. L. England – 900 North Shore Road, Marmora, NJ 08223

#### BOP100003

New Jersey Department of Environmental Protection Facility Specific Requirements Date: 12/16/2010

Subject Item:

GR2 U2 CDs requirements are listed.

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Applicable RACT requirements are listed in the group GR1. Requirements listed under GR1 are in effect before and after the installation and operation of SCR.  Applicable control devices requirements are listed in the group GR2.	None.	None.	None.
10	Applicable requirements for hourly emission limits for HAPs and other pollutants are listed in GR4.	1 Menus	Copyright Copyri	y Hadden
ide.	Requirements listed under these groups are applicable to U2, OS1 - OS5. [N.J.A.C. 7:27-22.16(a)]			
2	Nitrogen oxides emissions shall be controlled by selective non-catalytic reduction and overfire air dampers. Use of SNCR is optional after installation and operation of SCR. [N.J.A.C. 7:27-22.16(a)]	Monitored by continuous emission monitoring system continuously for the NOx concentration in the flue gas; and process monitoring system, continuously, for ammonia. [N.J.A.C. 7:27-22.16(e)]	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(e)]	None.
3	Sulfur dioxide emissions shall be controlled by limestone forced oxidation flue gas desulfurization scrubber system. [N.J.A.C. 7:27-22.16(e)]	Monitored by continuous emission monitoring system continuously. If a continuous emission monitor system for SO2 on the inlet of the scrubber system malfunctions while Unit 2 is burning coal, and the outage lasts longer than 24 hours, then starting on the 24th hour and every three hours thereafter, B. L. England Station	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously.  An operation, inspection and maintenance plan for the scrubber system shall be maintained at the facility. [N.J.A.C. 7:27-22.16(e)]	None.
10.4		shall sample the coal fired to the unit not being continuously monitored for SO2 emissions, composite the samples taken each day into a daily sample, and analyze the daily coal sample for sulfur content according to ASTM methods D2013, D3172, D3177, and D3180. [N.J.A.C. 7:27-22.16(e)]		
	Urea: When the SNCR (CD5) system is operating, daily records of urea usage shall be maintained. [N.J.A.C. 7:27-22.16(a)]	Monitored by material feed/flow monitoring continuously. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. Maintain daily urea usage records per day. [N.J.A.C. 7:27-22.16(o)]	None.

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
5	Particulate emissions from Unit #2 cyclone boiler shall be controlled by electrostatic precipitator during all times when the unit is operating. [N.J.A.C. 7:27-22.16(e)]	Monitored by continuous opacity monitoring system continuously, based on an instantaneous determination. [N.J.A.C. 7:27-22.16(e)]	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(e)]	None.
6	The electrostatic precipitator (ESP) must operate at all times when Unit 2 is burning coal. The ESP need not be energized when operating with only No. 6 fuel oil. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
7	Design Retention time for ESP is 10.59 seconds. [N.J.A.C. 7:27-22.16(a)]	None.	Nonc.	None:
8	Minimum apparent Migration design velocity for ESP is 15.3 feet per minute [N.J.A.C. 7:27-22.16(a)]	None:	None:	None.
9	Design Number of plate is 312, fields 16 and total plate surface area for ESP is 265,392 sq.ft. [N.J.A.C. 7:27-22.16(o)]	None.	None:	None:
10	Maximum design gas velocity across the ESP shall be 60 Feet per second. [N.J.A.C. 7:27-22.16(a)]	None:	None.	None.
11	Particulate design removal efficiency for ESP shall be no less than 98.6%. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
12	Design Aspect Ratio for ESP shall be maintained at 41. [N.J.A.C. 7:27-22.16(a)]	None.	None:	None:
13	Opacity: During periods of Continuous Opacity Monitoring System (COMS) downtime, the permittee will maintain the Current to T/R Set >= 0 and <= 34 KW for CD3. There is no violation if the continuous monitoring shows compliance with emission limits but these surrogate parameters are out of the stated range. [N.J.A.C. 7:27-22.16(a)]		Opacity: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously during periods of COMs downtime. Record Voltage. [N.J.A.C. 7:27-22.16(o)]	None:

Ref.#	11tequirement	Monitoring Requirement	Recordkeeping Requirement	0.1
	Temperature at Reagent Injection Point: During periods of NOx Continuous Emissions Monitoring System (CEMS) downtime, the permittee will maintain the temperature at Reagent Injection Point between >= 1900 and <= 2600 degrees F for CD5. There is no violation if the continuous monitoring shows compliance with emission limits but these surrogate parameters are out of the stated range. This requirement applies to SNCR. [N.J.A.C. 7:27-22.16(a)]	Temperature at Reagent Injection Point: Monitored by temperature instrument continuously during the periods of CEMs downtime. [N.J.A.C. 7:27 22.16(o)]	Temperature at Reagent Injection Point: Recordkeeping by strip chart or data acquisition (DAS) system continuously during the periods of CEMs downtime. Reagent Injection Point temperature is measured and recorded. [N.J.A.C. 7:27-22.16(e)]	Submittal/Action Requirement None.
	When burning coal, Unit 2 shall emit no more than 10% of the annual SO2 emissions that would result from burning coal without controls, based on the actual amount of coal burned per year and the 2.6 % annual average coal sulfur content. [N.J.A.C. 7:27-22.16(e)]	Monitored by continuous emission monitoring system continuously and by calculations based on the coal sulfur content data and quantity of coal burned in Unit 2. Determining compliance with this annual limit shall not consider SO2 emissions or coal burned during periods of boiler start up and shutdown or during periods when an affected scrubber system is out of service for maintenance or to correct a scrubber system malfunction, or during periods when fuel oil is being burned. [N.J.A.C. 7:27-22.16(e)]		None.
t a u	The electrostatic precipitator shall be operated and maintained in accordance with the manufacturer's recommendations as amended by retrofit technology. ESP will be updated to meet ACO requirements.  N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
H H H H	CENTAL THORITORING BYSICH	Pressure Drop: Monitored by pressure drop instrument continuously during periods of CEMs downtime. [N.J.A.C. 7:27-22.16(o)]	Pressure Drop: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously during periods of CEMs downtime. [N.J.A.C. 7:27-22.16(o)]	None.
Fo M	ollowing mafe	None.	None.	None.

### New Jersey Department of Environmental Protection Facility Specific Requirements

Date: 12/16/2010

	L. H. Doguiyamant	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
Ref.#	Applicable Requirement  The permittee shall replace the catalyst bed as necessary to ensure that NOx emissions do not exceed the maximum permit allowable emission rate. [N.J.A.C. 7:27-22.16(a)]	<del>None.</del>	None.	None:
<del>0</del>	Temperature at Catalyst Bed >= 600 and Temperature at Catalyst Bed <= 800 degrees F for CD17. The permittee shall not be considered in violation for any deviation from this requirement if corresponding NOx emissions are in compliance with applicable emission limits as established in this permit. [N.J.A.C. 7:27-22.16(a)]	Temperature at Catalyst Bed: Monitored by temperature instrument continuously, based on an instantaneous determination. The permittee shall install, calibrate and maintain the monitor(s) in accordance with the manufacturer's specifications. The monitor(s) shall be ranged such that the allowable value is approximately mid-scale of the full range current/voltage output. [N.J.A.C. 7:27-22.16(o)]	Temperature at Catalyst Bed: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	
<del></del>	Ammonia: When the SCR system is operating, daily records of aqueous ammonia usage shall be maintained Applies to CD17. [N.J.A.C. 7:27-22.16(a)]	Ammonia: Monitored by material feed/flow monitoring continuously. [N.J.A.C. 7:27-22.16(o)]	Ammonia: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. Maintain daily aqueous ammonia usage records per day. [N.J.A.C. 7:27-22.16(o)]	None:
<del>22</del>	B.L. England may inject sorbent as necessary for control of H2SO4 emissions. If SO3 reagent is needed, the acceptable minimum slurry injection rate into the boiler will be determined through stack testing upon commencement of operation after the addition of the SCR. Applies to CD16.	Monitored by material feed/flow monitoring continuously, based on a 1 hour block average. [N.J.A.C. 7:27-22.16(0)]	Recordkeeping by data acquisition system (DAS) / electronic data storage each hour during operation. [N.J.A.C. 7:27-22.16(0)]	None:
23	[N.J.A.C. 7:27-22.16(a)]  The electrostatic precipitator, flue gas desulfurization, SCR, and Sorbent injection system, (CD3, CD4, CD16, CD17, and CD200), shall be operated at all times that the Boiler, Unit#2 is operating, except during start-up and shutdown. SNCR (CD5) can be operated as needed, based on MM 080001 application. [N.J.A.C. 7:27-22.16(a)]	Other: The permittee shall record the time and duration of the operation of all CD's listed in the applicable requirement.[N.J.A.C. 7:27-22.16(o)].	Recordkeeping by manual logging of parameter or storing data in a computer data system upon occurrence of event. Record the time and duration of the operation of the unit#2 and the CDs listed in the applicable requirement in a log book. [N.J.A.C. 7:27-22.16(o)]	l .

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### New Jersey Department of Environmental Protection Facility Specific Requirements

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Ref.#	11 Liequit ement	Monitoring Requirement	Recordkeeping Requirement	Submittel/Action Descri
24	Selective Catalytic Reduction (SCR - CD17): NOx Percentage Removal >= 90 % (design value). The permittee shall not be considered in violation for any deviation from this requirement if corresponding NOx emissions from the unit#2 boiler are in compliance with applicable emission limits as established in this permit. [N.J.A.C. 7:27-22.16(a)]		Recordkeeping by manual logging of parameter or storing data in a computer data system at the approved frequency. The permittee shall keep SCR manufacturer's documentation, as-built performance guarantee and operation and maintenance manual on-site. [N.J.A.C. 7:27-22.16(o)]	Submittal/Action Requirement None.
<del>25</del>	Ammonia Slip <- 10 ppmvd @ 7% O2.  Maximum concentration value from 080001 minor modification application. [N.J.A.C. 7:27-22.16(a)]  Ammonia Slip <- 10 ppmvd @ 7% O2.	Ammonia Slip: Monitored by parametric monitoring system continuously, based on a 1 hour block average. [N.J.A.C. 7:27-22.16(o)]	Ammonia Slip: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(e)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): Every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-22.16(o)]
	Maximum concentration value from 080001 miner modification application. [N.J.A.C. 7:27-22.16(a)]	Ammonia Slip: Monitored by stack emission testing annually, based on the average of three Department validated stack test runs. Refer to stack testing requirements specified in this permit at U2 OS Summary, Ref. #1. [N.J.A.C. 7:27-22.16(o)]	Ammonia Slip: Recordkeeping by stack test results annually. Refer to stack testing requirements specified in this permit at U2 OS Summary, Ref. #1. [N.J.A.C. 7:27 22.16(o)]	Stack Test—Submit protocol, conduct test and submit results: Annually. Refer to stack testing requirements specified in this permit at U2 OS Summary, Ref. #1. [N.J.A.C. 7:27-22.16(o)]
	Nitrogen oxides emissions shall be controlled by SCR and/or SNCR technology and overfire air dampers. [N.J.A.C. 7:27-22.16(a)]	Monitored by continuous emission monitoring system continuously for the NOx concentration in the flue gas. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(o)]	None.
8	Concentration of Reagent in Solution < 20 %. [N.J.A.C. 7:27-22.16(a)]	Other: Bills of lading or invoices per each delivery.[N.J.A.C. 7:27-22.16(o)].	Concentration of Reagent in Solution: Recordkeeping by invoices / bills of lading / certificate of analysis per delivery. [N.J.A.C. 7:27-22.16(o)]	None.

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### New Jersey Department of Environmental Protection Facility Specific Requirements

Date: 12/16/2010

**Emission Unit:** 

U1 Unit 1 Steam Generator

**Operating Scenario:** 

**OS Summary** 

		Manitaring Requirement	Recordkeeping Requirement	
kef.#	Conduct comprehensive stack testing at emission point, PT1, as follows: For coal firing, stack tests for criteria pollutants (TSP & PM-10), heavy metals (As, Be, Cd, Cu, Cr, Co, Pb, Mn, Hg, Ni), ammonia (NH3) and acid gases (H2SO4, HCl & HF) shall be conducted annually to demonstrate compliance with the emission limits. The first of the annual stack tests must be conducted within 180 days from the date of the approved initial operating permit (IOP).  Additionally, while coal firing, conduct stack test for criteria pollutants (TSP, PM-10, NOx, CO, VOC, SO2), heavy metals and acid gases as listed above, non-metals (Se), total dioxins/furans, PAH, and POM within 42 months from the date of the approved IOP. Three consecutive stack testing runs shall be conducted with unit operating at between 90 -100% of maximum heat input. Heat input (MMBtu/hr, HHV) shall be determined for each stack test. The permittee shall conduct any additional stack emission testing for the pollutants for which an emission limit has been set in Section J, Facility Specific Requirements, of Title V IOP, or any other air pollutants potentially emitted by the station, upon	Monitoring Requirement  Monitored by stack emission testing at the approved frequency, based on any 60 minute period. Stack testing shall be conducted for TSP, PM-10, NOx, SO2, CO, VOC, and HAPs and other air contaminants, as applicable. (See Applicable Requirement). Permanent sampling and testing facilities shall be provided as required by the Department to determine the nature and quantity of emissions from the boilers. Such facilities shall conform to all applicable laws and regulations concerning safe construction or safe practices. [N.J.A.C. 7:27-22.16(e)]  &. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by stack test results at the approved frequency [N.J.A.C. 7:27-22.16(e)] &. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. Submit a stack test protocol to the Bureau of Technical Services (BTS) at PO Box 437, Trenton, NJ 08625 within 60 days from the date of the approved IOP. Within 30 days of protocol approval, the permittee must contact BTS at 609-530-4041 to schedule a mutually acceptable test date. See Applicable Requirement for test schedules. The stack test report must be submitted to BTS within 45 days after performing the stack test pursuant to N.J.A.C. 7:27-22.19(d). The test results must be certified by a New Jersey licensed professional engineer or certified industrial hygienist. POM analytical results must be submitted to BTS within 90 days after performing the stack test.  A copy of the test results must be submitted with the OP renewal application due at least 12 months prior to expiration of the OP. Test results shall report lb/hr, lb/MMBTU(HHV), ng/dscm for total dioxins/furans, PAH, and POM, and ppmvd @ 7% O2 except for particulate matter, dioxins/furans, PAH, and POM. Emissions of the following 16 POM constituents shall be speciated and reported: napthalene, acenaphthene, acenaphthylene, fluorene,
	Title V IOP, or any other air pollutants potentially emitted by the station, upon request by the Department.  After December 15, 2007, during the interim period when Unit 1 will operate on a limited basis in accordance with the Administrative Consent Order, Unit 1 will not be required to have stack testing performed. [N.J.A.C. 7:27-22.16(a)]	1		be speciated and reported: hapmache, acenaphthene, acenaphthylene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo(ghi)perylene, benzo(a)anthracene, chyrsene, benzo(b)fluoranthene, benzo(a)pyrene, dibenz(a,h)anthracene, and indeno(1,2,3-cd pyrene. [N.J.A.C. 7:27-22.16(e)] & [N.J.A.C. 7:27-22.18(e)] & [N.J.A.C. 7:27-22.18(h)]

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
3	The permittee shall operate and maintain continuous emission monitors and continuous data recorders to measure and record the concentration of O2, nitrogen oxides (as NO2), SO2, and CO in accordance with a protocol approved by the Chief, BTS. [N.J.A.C. 7:27-22.16(e)]	Other: The continuous monitors shall be calibrated daily using calibration standards acceptable to the Department.[N.J.A.C. 7:27-22.16(e)].	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. Written reports of excess emissions shall be reported on EEMPR forms and shall include the magnitude of excess emissions, the reasons for these exceedances and the corrective action taken. When no excess emissions have occurred, or the continuous monitoring systems have been inoperative, repaired, or adjusted, such information shall be stated in the report. EEMPR forms are available from REO. [N.J.A.C. 7:27-22.16(e)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): Every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1). Within thirty (30) days of the close of each calendar quarter, the reports shall be submitted to the Chief, REO, and Chief, BTS. [N.J.A.C. 7:27-22.16(e)]
4	The permittee shall operate and maintain a continuous opacity monitor and continuous data recorder to measure and record the opacity after ESP on Unit #1 in accordance with a protocol approved by the Chief, BTS. [N.J.A.C. 7:27-22.16(e)]	Other: The continuous monitors shall be ealibrated daily using calibration standards acceptable to the Department.[N.J.A.C. 7:27-22.16(e)].	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. Written reports of excess emissions shall be reported on EEMPR forms and shall include the magnitude of excess emissions, the reasons for these exceedances and the corrective action taken. When no excess emissions have occurred, or the continuous monitoring systems have been inoperative, repaired, or adjusted, such information shall be stated in the report. EEMPR forms are available from REO. [N.J.A.C. 7:27 22.16(e)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): Every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1). Within thirty (30) days of the close of each calendar quarter, the reports shall be submitted to the Chief, REO, and Chief, BTS. [N.J.A.C. 7:27-22.16(e)]
	The permittee shall operate and maintain continuous monitor and recorder, approved by the Chief, BTS, in Unit #1 flue to monitor and record the flue gas volumetric flow rate. [N.J.A.C. 7:27-22.16(e)]	Other: The continuous monitors shall be calibrated daily using calibration standards acceptable to the Department.[N.J.A.C. 7:27-22.16(e)].	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(e)]	None.
	The permittee shall not rely on the use of intermittent emission control strategies such as threttling back steam production, or other dispersion techniques as defined at 40 CFR Part 51.1(h), as a means of demonstrating compliance with the ambient air quality standards specified at N.J.A.C. 7:27-13.  N.J.A.C. 7:27-22.16(e)	None.	None.	None.

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
7	The permittee shall submit a quarterly excess emissions and monitoring systems performance report (EEMPR) to the Chief, REO, and Chief, BTS, within thirty (30) days of the close of each calendar quarter. [N.J.A.C. 7:27-22.16(e)]	Other: Monitored by continuous emission monitors, continuous opacity monitor, continuous flue gas flow monitor, and continuous data recorders. Equipment specification, calibration and operating procedures, and data evaluation and reporting procedures shall be approved by the Chief, BTS.[N.J.A.C. 7:27-22.16(e)].	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously or manual logging of parameter in a log book.  Written reports of excess emissions shall be reported on EEMPR forms and shall include the magnitude of excess emissions, the reasons for these exceedances and the corrective action taken.  When no excess emissions have occurred, or the continuous monitoring systems have been inoperative, repaired, or adjusted, such information shall be stated in the report.  EEMPR forms are available from REO.  [N.J.A.C. 7:27-22.16(e)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): Every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1). Within thirty (30) days of the close of each calendar quarter, the reports shall be submitted to the Chief, REO, and Chief, BTS. [N.J.A.C. 7:27-22.16(e)]
8	TSP <= 569.4 tons/yr. Annual limit based on preconstruction permit is in effect until December 14, 2013. Annual limit of 170.8 tons/yr, based on SM100003 application, will be in effect from December 15, 2013. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
9	PM-10 (Total) <= 1,198.34 tons/yr. Based on stack test results. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None:
10	Annual limit based on preconstruction permit, VOC (Total) <- 70.08 tons/yr.	None:	None:	None:
11	NOx (Total) <= 4,080.7 tons/yr. Annual limit based on preconstruction permit is in effect until December 14, 2013. Annual limit of 626.3 tons/yr, based on SM100003 application, will be in effect from December 15, 2013. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
12	Annual limit based on preconstruction permit, CO <= 438 tons/yr. [N.J.A.C. 7:27-22.16(e)]	None:	None:	None:
13	SO2 <= 31,457.16 tons/yr. Annual limit based on preconstruction permit is in effect until December 14, 2013. Annual limit of 854.1 tons/yr, based on SM100003 application, will be in effect from December 15, 2013. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

BOP100003

### New Jersey Department of Environmental Protection Facility Specific Requirements

Date: 12/16/2010

**Emission Unit:** 

U1 Unit 1 Steam Generator

Operating Scenario:

OS1 Unit 1 Firing Blended Coal with up to 8% Tire Derived Fuel (TDF) or #6FO Operating with ESP, SNCR & OFA

Ref.#	11 - the 2 coquit ement	Monitoring Requirement	Recordkeeping Requirement	Submitted/Action Description
1	Opacity <= 20 %. No visible emissions greater than 20% opacity, exclusive of visible condensed water vapor, except for a period of time of not longer than three (3) minutes in any consecutive 30 minute period. [N.J.A.C. 7:27-3.2(a)] & [N.J.A.C. 7:27-3.2(c)] &. [N.J.A.C. 7:27-22.16(c)]	Opacity: Monitored by continuous opacity monitoring system continuously, based on any consecutive 30 minute period. If the opacity measured at the monitor exceeds the limit specified in the Applicable Requirement, the permittee shall take action to reduce opacity to below that limit. [N.J.A.C. 7:27-22.16(e)]	Opacity: Recordkeeping by data acquisition system (DAS) / electronic data storage	Submittal/Action Requirement Submit notification: As per the approved schedule; the facility shall report to the Chief, REO, in writing within three (3) working days after the event of any opacity exceedance.  -[N.J.A.C. 7:27-22.16(e)]
	Maximum allowable emission rate of particles based on heat input rate (MMBtu/hr), Particulate Emissions <= 130 lb/hr. [N.J.A.C. 7:27-4.2(a)]	Particulate Emissions: Monitored by stack emission testing annually, based on any 60 minute period. Refer to stack testing requirements for TSP specified in this permit at U1 OS Summary, Ref.#1. [N.J.A.C. 7:27-4.4] & [N.J.A.C. 7:27-22.16(e)]	Particulate Emissions: Recordkeeping by stack test results annually. Refer to stack testing requirements for TSP specified in this permit at U1 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(e)]	Stack Test—Submit protocol, conduct test and submit results: As per the approved schedule. Refer to stack testing requirements for TSP specified in this permit at U1 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(e)]
	Sulfur Content in Fuel <-2 % by weight.  Maximum allowable sulfur content in fuel oil grades/viscosity and geographical zone. [N.J.A.C. 7:27-9.2(b)]	Sulfur Content in Fuel: Monitored by fuel sampling (e.g. oil) at the approved frequency, based on the averaging period as per Department approved test method. The permittee shall sample oil received at the station by collecting one (1) sample per month from each of the on site tanks in accordance with ASTM Method D4507. The sulfur content of No. 6 fuel oil samples shall be determined using ASTM Method D1552. [N.J.A.C. 7:27 22.16(e)]	Sulfur Content in Fuel: Recordkeeping by certified lab analysis results quarterly: once per quarter; quarters shall begin on January 1, April 1, July 1, and October 1 of each year. The permittee shall keep operating logs to accurately maintain records of the date received, supplier's name and address, quantity received, and mean sulfur content of each shipment of oil received at the station. [N.J.A.C. 7:27-22.16(e)]	Submit a report: Annually to the Chief, REO. Within thirty (30) days from the end of each calendar year, the permittee shall report the sulfur content of oil for each calendar quarter in writing to the Chief, Southern Regional Enforcement Office. [N.J.A.C. 7:27-22.16(e)]

### New Jersey Department of Environmental Protection Facility Specific Requirements

Date: 12/16/2010

- C !!	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
def.#	Adjust the combustion process in accordance with N.J.A.C. 7:27-19.16 by May 1 of each calendar year.  An exceedance of an emission limit which occurs during an adjustment of the combustion process, as a result of the	Monitored by continuous emission monitoring system continuously, or periodic emission monitoring (portable instrument), annually, and inspection. The owner or operator of the equipment or source operation shall:  1. Inspect the burner, and clean or replace any components of the burner as necessary to minimize total emissions of NOx and CO;  2. Inspect the flame pattern and make any adjustments to the burner necessary to optimize the flame pattern; and  3. Inspect the system controlling the air-to-fuel ratio, and ensure that it is correctly calibrated and functioning properly. [N.J.A.C. 7:27-19.16(a)] &. [N.J.A.C. 7:27-22.16(e)]	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously and manual logging of pararmeter, annually. The owner/operator of the adjusted equipment or source operation shall record each adjustment conducted under N.J.A.C. 7:27-19.16(a) in a log book or other format approved in writing by the Department, containing the following information for each adjustment: 1. The date of adjustment and the times at which it began and ended; 2. The name, title, and affiliation of the person who made the adjustment; 3. The NOx concentration in the effluent stream, in either ppmdv or ppmv, after each adjustment was made; 4. The CO concentration in the effluent stream, in either ppmdv or ppmv, after each adjustment was made; 5. The concentration of O2 at which the CO and NOx concentrations were measured; and 6. Any other information which the Department or the EPA has required as a condition of approval of any permit or certificate issued for the equipment or source operation. [N.J.A.C. 7:27-19.16(c)]	None.
&	When combusting fuel oil, the owner or operator of a cyclone-fired wet bottom utility boiler shall cause it to emit NOx at a rate no greater than the applicable maximum allowable NOx emission rate specifed in Table 1.  Maximum allowable NOx emission rate for oil, NOx (Total) <= 0.43 lb/MMBTU. [N.J.A.C. 7:27-19.4(a)]	NOx (Total): Monitored by continuous emission monitoring system continuously, based on one calendar day average between May 1 and September 30, and a 30-day rolling average (rolling 1-day basis) from October 1 through April 30; and flue gas flow monitor and/or fuel flow instrument, continuously. [N.J.A.C. 7:27-19.4(a)]	NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously and calculations.  B. L. England Station shall calculate the average NOx emission rate using the data from the CEM systems for the NOx concentration in the flue gas, and either the flue gas flow rate or the fuel flow rate. To calculate the emission rate using the NOx concentration and the fuel flow rate, B. L. England Station shall use the conversion procedure set forth in the Acid Rain regulations at 40 CFR Part 75, Appendix F, or an alternative procedure that the Department and EPA determines will yield the same result. [N.J.A.C. 7:27-19.4(a)]	None:

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Ref.#	11 - and an ement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
10	NOx (Total) <- 0.6 lb/MMBTU. When combusting blended coal, with or without tire derived fuel, the owner or operator of a cyclone-fired wet bettom utility boiler shall cause it to emit NOx at a rate no greater than the applicable maximum allowable NOx emission rate specifed in Table 1. [N.J.A.C. 7:27-19.4(a)]	NOx (Total): Monitored by continuous emission monitoring system continuously, based on one calendar day average between May 1 and September 30. A continuous emissions monitoring system shall be operated under N.J.A.C. 7:27-19.18. [N.J.A.C. 7:27-19.15(a)1i]	NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. The owner or operator shall calculate the average NOx emission rate using the data from such a system for the NOx concentration in the flue gas and either the flue gas flow rate or the fuel flow rate. To calculate the emission rate using the NOx concentration and fuel flow rate, the owner or operator shall use the conversion procedure set forth in the Acid Rain regulations at 40 CFR 75, Appendix F, or an alternative procedure that the Department and EPA determines will yield the same result. [N.J.A.C. 7:27 19.15(a)1i]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): Every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-22.16(e)]
	NOx (Total) <- 0.6 lb/MMBTU. When combusting blended coal, with or without tire-derived fuel, the owner or operator of a cyclone fired wet bottom utility boiler shall cause it to emit NOx at a rate no greater than the applicable maximum allowable NOx emission rate specifed in Table 1. [N.J.A.C. 7:27-19.4(a)]	NOx (Total): Monitored by continuous omission monitoring system continuously, based on a rolling 30 day average (rolling 1 day basis) from October 1 through April 30. A continuous emissions monitoring system shall be operated under N.J.A.C. 7:27-19.18. [N.J.A.C. 7:27-19.15(a)1ii]	NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. The owner or operator shall calculate the average NOx emission rate using the data from such a system for the NOx concentration in the flue gas and either the flue gas flow rate or the fuel flow rate. To calculate the emission rate using the NOx concentration and fuel flow rate, the owner or operator shall use the conversion procedure set forth in the Acid Rain regulations at 40 CFR 75, Appendix F, or an alternative procedure that the Department and EPA determines will yield the same result. [N.J.A.C. 7:27-19.15(a)1]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): Every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-22.16(o)]
	December 15, 2013. Maximum emission limit based on the Administrative Consent Order issued on January 24, 2006 and	The second section of the second section is a second section of the second section of the second section is a second section of the second section is a second section of the second section of the second section is a second section of the second section of the second section is a second section of the sec	NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously The owner or operator shall calculate the average NOx emission rate using the data from such a system for the NOx concentration in the flue gas and either the flue gas flow rate or the fuel flow rate. To calculate the emission rate using the NOx concentration and fuel flow rate, the owner or operator shall use the conversion procedure set forth in the Acid Rain regulations at 40 CFR 75, Appendix F, or an alternative procedure that the Department and EPA determines will yield the same result. [N.J.A.C. 7:27-22.16(0)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): Every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-22.16(o)]

### New Jersey Department of Environmental Protection Facility Specific Requirements

Date: 12/16/2010

	Facility Specific Requirements				
- au	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement	
<b>Ref.#</b> 12	NOx (Total) <= 0.11 lb/MMBTU based on a 30-day rolling average, effective from December 15, 2013. Maximum emission limit based on the Administrative Consent Order issued on January 24, 2006 and Administrative Consent Order Amendment issued January 13, 2010. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by continuous emission monitoring system continuously, based on a rolling 30 day average (rolling 1 day basis). A continuous emissions monitoring system shall be operated under N.J.A.C. 7:27-19.18. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously The owner or operator shall calculate the average NOx emission rate using the data from such a system for the NOx concentration in the flue gas and either the flue gas flow rate or the fuel flow rate. To calculate the emission rate using the NOx concentration and fuel flow rate, the owner or operator shall use the conversion procedure set forth in the Acid Rain regulations at 40 CFR 75, Appendix F, or an alternative procedure that the Department and EPA determines will yield the same result. [N.J.A.C. 7:27-22.16(0)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): Every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-22.16(o)]	
13	NOx (Total) <= 341 ppmvd @ 7% O2, based on 0.60 lb/MMBtu, when combusting blended coal, with or without tire-derived fuel, in a cyclone-fired wet boiler, the maximum allowable NOx concentration rate for coal. [N.J.A.C. 7:27-19.4(a)]	NOx (Total): Monitored by continuous emission monitoring system continuously; based on any 60 minute period and stack emission testing based on the average of three 1- hour tests at the approved frequency. Refer to stack testing requirements specified in this permit at U1 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(e)]	NOx (Total): Recordkeeping by strip chart, data acquisition (DAS) system, or other method approved by BTS continuously and stack test results at the approved frequency. Refer to stack testing requirements specified in this permit at U1 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(c)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. Refer to stack testing requirements specified in this permit at U1 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(e)]	
14	NOx (Total) <= 780 lb/hr, based on 0.60 lb/MMBtu, when combusting blended coal, with or without tire-derived fuel, in a eyelone-fired wet boiler, the maximum allowable NOx emission rate for coal, [N.J.A.C. 7:27-19.4(a)]	NOx (Total): Monitored by continuous emission monitoring system continuously, based on any 60 minute period and stack emission testing based on the average of three 1-hour tests at the approved frequency. Refer to stack testing requirements specified in this permit at U1 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(e)]	NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously and stack test results at the approved frequency. Refer to stack testing requirements specified in this permit at U1 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(c)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. Refer to stack testing requirements specified in this permit at U1 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(c)]	
15	TSP <= 0.03 lb/MMBTU based on a 30-day rolling average, effective from December 15 2013. Maximum emission limit based on the Administrative Consent Order issued on January 24, 2006 and Administrative Consent Order Amendment issued on January 13, 2010. [N.J.A.C. 7:27-22.16(a)]	TSP: Monitored by stack emission testing annually, based on the average of three	TSP: Recordkeeping by stack test results annually. [N.J.A.C. 7:27-22.16(0)]	Stack Test - Submit protocol, conduct test and submit results: Annually. Refer to stack testing requirements specified in this permit at U1 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(o)]	

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Ref.#	Applicable Requirement	Monitoria D	Leading dispersion of measures and account for the contract of	
16	SO2 <= 0.25 lb/MMBTU based on 24 hour	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requireme
7	Average, effective from December 15, 2013.  Maximum emission limit based on the Administrative Consent Order issued on January 24, 2006 and Administrative Consent Order Amendment issued on January 13, 2010. [N.J.A.C. 7:27-22.16(a)]	SO2: Monitored by continuous emission monitoring system continuously, based on a daily average. A continuous emissions monitoring system shall be operated under N.J.A.C. 7:27-19.18. [N.J.A.C. 7:27-22.16(o)]	CO2. D	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): Every April 30, July 30, Octol 30, and January 30 for the preceding quaryear (the quarter years begin on January 1 April 1, July 1, and October 1) electronic through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-22.16(o)]
	SO2 <= 0.15 lb/MMBTU based on a 30-day rolling average, effective from December 15, 2013. Maximum emission limit based on the Administrative Consent Order issued on January 24, 2006 and Administrative Consent Order Amendment issued on January 13, 2010. [N.J.A.C. 7:27-22.16(a)]	SO2: Monitored by continuous emission monitoring system continuously, based on a rolling 30 day average (rolling 1 day basis). A continuous emissions monitoring system shall be operated under N.J.A.C. 7:27-19.18. [N.J.A.C. 7:27-22.16(o)]	SO2: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. The owner or operator shall calculate the average SO2 emission rate using the data from such a system for the SO2 concentration in the flue gas and either the flue gas flow rate or the fuel flow rate. To calculate the emission rate using the SO2 concentration and fuel flow rate, the owner or operator shall use the conversion procedure set forth in the Acid Rain regulations at 40 CFR 75, Appendix F, or an alternative procedure that the Department and EPA determines will yield the same result. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): Every April 30, July 30, Octobe 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1) electronical through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-22.16(0)]
I	Maximum gross heat input from preconstruction permit, Maximum Gross leat Input <- 1,300 MMBTU/hr (HHIV). N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
I	Hours of Operation While Firing Coal <- 1,760 hr/yr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
e ti	Jnit #1 boiler fuels limited to bituminous oal, low sulfur coal, mixed with up to 8%	Monitored by review of fuel delivery records per delivery. [N.J.A.C. 7:27-22.16(e)]	Recordkeeping by invoices / bills of lading per delivery. [N.J.A.C. 7:27-22.16(e)]	None.

	1 Lla Dagniyament	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
Ref.# 3	Applicable Requirement  The permittee shall analyze sulfur in coal in accordance with protocol approved by the Chief, BTS, using an on-line nuclear cross belt analyzer that provides real time analysis of sulfur in coal conveyed to Unit #1.  The nuclear analyzer shall be located and operated on the existing 30 inch coal conveyor belt, #17, before the crusher.  [N.J.A.C. 7:27-22.16(c)]  Sulfur Content in Fuel <= 1 % by weight. Based on preconstruction permit, maximum	Other: The precision of the nuclear analyzer for measuring the sulfur content of the feed coal shall be 0.08% or greater at one sigma. The permittee shall check the calibration of the instrument in accordance with a protocol, approved by the Chief, BTS, for the ongoing verification of calibration and performance of the analyzer [N.J.A.C. 7:27-22.16(e)].  Sulfur Content in Fuel: Monitored by fuel compling (e.g. oil) at the approved	Sulfur Content in Fuel: Recordkeeping by certified lab analysis results quarterly: once per quarter; quarters shall begin on January	Submit a report: Annually to the Chief, REO. Within thirty (30) days from the end of each calendar year, the permittee shall
	allowable sulfur content of No. 6 fuel oil. [N.J.A.C. 7:27-22.16(a)]	frequency, based on the averaging period as per Department approved test method. The permittee shall sample oil received at the station by collecting one (1) sample per month from each of the on site tanks in accordance with ASTM Method D4507. The sulfur content of No. 6 fuel oil samples shall be determined using ASTM Method D1552. [N.J.A.C. 7:27-22.16(e)]	1, April 1, July 1, and October 1 of each year. [N.J.A.C. 7:27-22.16(e)]	report the sulfur content of oil for each ealendar quarter in writing to the Chief, Southern Regional Enforcement Office. [N.J.A.C. 7:27-22.16(e)]
<u></u>	Maximum quantity of tire derived fuel (TDF)in total fuel input <= 8% by weight. [N.J.A.C. 7:27-22.16(e)]	None:	Recordkeeping by manual logging of parameter each month during operation. [N.J.A.C. 7:27-22.16(e)]	None:
26	Particulate emissions from Unit #1 cyclone boiler shall be controlled by electrostatic precipitator during all times when the unit is operating. [N.J.A.C. 7:27-22.16(e)]	Monitored by continuous opacity monitoring system continuously, based on any consecutive 30-minute period. [N.J.A.C. 7:27-22.16(e)]	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(e)]	None.
27	Nitrogen oxides emissions shall be controlled by selective non-catalytic reduction and overfire air dampers. [N.J.A.C. 7:27-22.16(e)]	Monitored by continuous emission monitoring system continuously for the NOx concentration in the flue gas; and process monitoring system, continuously, for ammonia. [N.J.A.C. 7:27-22.16(e)]	continuously. [N.J.A.C. 1.21-22.15(9)]	Stack Test - Submit protocol, conduct test
<del>28</del>	Maximum allowable emission rate based on preconstruction permit, TSP <= 130 lb/hr. [N.J.A.C. 7:27-22.16(e)]	TSP: Monitored by stack emission testing annually, based on any 60 minute period. Refer to stack testing requirements specified in this permit at U1 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(e)]	Rei.#1. [N.J.A.C. 7.27-22.10(0)]	and submit results: As per the approved schedule. Refer to stack testing requirement specified in this permit at U1 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(e)]
<del>29</del>	Maximum allowable emission rate based on stack test results. PM-10 (Total) <= 273.59 lb/hr. [N.J.A.C. 7:27-22.16(a)]		PM-10 (Total): Recordkeeping by stack test results annually. Refer to stack testing requirements specified in this permit at U1 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(e)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. Refer to stack testing requirement specified in this permit at U1 OS Summary Ref.#1. [N.J.A.C. 7:27-22.16(0)]

BOP100003

### New Jersey Department of Environmental Protection Facility Specific Requirements

Date: 12/16/2010

**Emission Unit:** 

**U2 Unit 2 Steam Generator** 

**Operating Scenario:** 

**OS Summary** 

Ref.#	Trmaio reduit ement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
	Conduct comprehensive stack testing at emission point, PT2, as follows: For coal firing, stack tests for criteria pollutants (TSP & PM-10), heavy metals (As, Be, Cd, Cu, Cr, Co, Pb, Mn, Hg, Ni), ammonia (NH3), and acid gases (H2SO4, HCl & HF) shall be conducted annually to demonstrate compliance with the emission limits. The first of the annual stack tests must be conducted within 180 days from the date of the approved initial operating permit. Additionally, while coal firing, conduct stack test for criteria pollutants (TSP, PM-10, NOx, SO2, CO, VOC), heavy metals and acid gases as listed above, non-metals (Se), total dioxins/furans, PAH, and POM within 42 months from the date of the approved Initial Operating Permit. When stack testing, three consecutive runs shall be conducted with unit operating at between 90 -100% of maximum heat input. Heat input (MMBtu/hr, HHV) shall be determined for each stack test. The permittee shall conduct any additional stack emission testing for the pollutants for which an emission limit has been set in Section J, Facility Specific Requirements, of this Initial Title V Operating Permit, or any other air pollutants potentially emitted by the station, upon request by the Department. [N.J.A.C. 7:27-22.16(e)]	Monitored by stack emission testing at the approved frequency, based on each of three Department validated stack test runs. Stack testing shall be conducted for TSP, PM-10, NOx, CO, VOC & SO2, and HAPs and other air contaminants, as applicable. (See Applicable Requirement). Stack test for TSP and PM10 is annual and for NOx, CO, VOC & SO2 is once per 5-year term. Stack test for HAPs is listed in its corresponding individual applicable requirement. Permanent sampling and testing facilities shall be provided as required by the Department to determine the nature and quantity of emissions from the boilers. Such facilities shall conform to all applicable laws and regulations concerning safe construction or safe practices. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by stack test results at the approved frequency [N.J.A.C. 7:27-22.16(e)] &. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule Submit a stack test protocol to the Bureau of Technical Services (BTS) at PC Box 437, Trenton, NJ 08625 within 60 days from the date of the approved initial operating permit. Within 30 days of protocomproved, the permittee must contact BTS 609-530-4041 to schedule a mutually acceptable test date. See Applicable Requirement for test schedules. Submit the source emissions test report to BTS, within 90 days after completion of the source emissions testing (N.J.A.C.7:27-22.18(e)(3)], pursuant to N.J.A.C. 7:27-22.18(e)(3)], pursuant to N.J.A.C. 7:27-22.19(d). The test results must be certified by a New Jersey licensed professional engineer or certified industrial hygienist. A copy of the test results must be submitted with the operating permit renewal application due at least 12 months prior to expiration of the Operating Permit. Test results shall report lb/hr, lb/MMBTU(HHV), ng/dscm for total dioxins/furans, PAH, and POM and ppmvd @ 7% O2 except for particulate matter, dioxins/furans, PAH and POM. Emissions of the following 16 POM constituents shall be speciated and reported: napthalene, acenaphthene, acenaphthylene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo(ghi)perylene, benzo(b)fluoranthene, benzo(a)pyrene, dibenz(a,h)anthracene, and indeno(1,2,3-cd) pyrene. [N.J.A.C. 7:27-22.18(e)] & [N.J.A.C. 7:27-22.18(e)] & [N.J.A.C. 7:27-22.18(e)]

	A. P. H. D. animomont	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
Ref.#	The owner or operator shall develop a QA/QC plan for all CEMS/COMS required by this permit. This QA/QC plan shall incorporate at a minimum those procedures outlined in 40 CFR, Part 60, Appendix F and/or 40 CFR, Part 75, Appendix B for CEMS and those procedures outlined in 40 CFR, Part 60, Appendix B, Specification One and 40 CFR, Part 51, Proposed RM 203 for COMS, published Department Technical Manuals or other procedures approved in writing by the Department. The QA/QC plan shall designate a coordinator for the facility who is responsible to ensure that the QA/QC plan is implemented. The Department reserves the right to require the QA/QC plan to be revised at any time based on the results of quarterly EEMPR reviews, inspections, audits or any other information available to the Department. All procedures outlined in the QA/QC plan shall commence upon the completion date of the PST. All redundant CEMS/COMS must undergo the	Other: The QA/QC coordinator shall be responsible for reviewing the QA/QC plan on an annual basis. [N.J.A.C. 7:27-22.16(o)].	Other: Maintain readily accessible records of the QA/QC plan including QA date and quarterly reports. [N.J.A.C. 7:27-22.16(o)].	Submit a report: Every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1). All quarterly and annual QA data shall be included in quarterly EEMPR reports and kept on file at the facility. The QA data must be made available to the Department upon request. Any changes to the QA/QC plan shall be submitted in writing to the Supervisor/CEMS Program of the Bureau of Technical Services. [N.J.A.C. 7:27-22.16(o)]
4	QA/QC procedure. [N.J.A.C. 7:27-22.16(a)]  The permittee shall operate and maintain continuous emission monitors and continuous data recorders to measure and record the concentration of O2, nitrogen oxides (as NO2), SO2, and CO in accordance with a protocol approved by the Chief, BTS. [N.J.A.C. 7:27-22.16(e)]	Other: The continuous monitors shall be calibrated daily using calibration standards acceptable to the Department.[N.J.A.C. 7:27-22.16(e)].	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. Written reports of excess emissions shall be reported on EEMPR forms and shall include the magnitude of excess emissions, the reasons for these exceedances and the corrective action taken. When no excess emissions have occurred, or the continuous monitoring systems have been inoperative, repaired, or adjusted, such information shall be stated in the report. EEMPR forms are available from REO. [N.J.A.C. 7:27-22.16(e)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): Every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1). Within thirty (30) days of the close of each calendar quarter, the reports shall be submitted to the Chief, REO, and Chief, BTS. [N.J.A.C. 7:27-22.16(e)]

Ref.#	11 1	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Da
5	The permittee shall operate and maintain a continuous opacity monitor and continuous data recorder to measure and record the opacity between the ESP and the wet scrubber on Unit #2 in accordance with a protocol approved by the Chief, BTS.  [N.J.A.C. 7:27-22.16(e)]	Other: The continuous monitors shall be calibrated daily using calibration standards acceptable to the Department.[N.J.A.C. 7:27-22.16(e)].	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. Written reports of excess emissions shall be reported on EEMPR forms and shall include the magnitude of excess emissions, the reasons for these exceedances and the corrective action taken. When no excess emissions have occurred, or the continuous monitoring systems have been inoperative, repaired, or adjusted, such information shall be stated in the report. EEMPR forms are available from REO. [N.J.A.C. 7:27-22.16(e)]	Submittal/Action Requirement Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): Every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1). Within thirty (30) days of the close of each calendar quarter, the reports shall be submitted to the Chief, REO, and Chief, BTS. [N.J.A.C. 7:27-22.16(e)]
**	The permittee shall operate and maintain continuous monitor and recorder, approved by the Chief, BTS, in Unit #2 flue to monitor and record the flue gas volumetric flow rate. [N.J.A.C. 7:27-22.16(e)]	Other: The continuous monitors shall be calibrated daily using calibration standards acceptable to the Department.[N.J.A.C. 7:27-22.16(e)].	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously . [N.J.A.C. 7:27-22.16(e)]	None.
	The permittee shall not rely on the use of intermittent emission control strategies such as throttling back steam production, or other dispersion techniques as defined at 40 CFR Part 51.1(h), as a means of demonstrating compliance with the ambient air quality standards specified at NJAC 7:27-13.  [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
	The permittee shall submit a quarterly excess emissions and monitoring systems performance report (EEMPR) to the Chief, REO, and Chief, BTS, within thirty (30) days of the close of each calendar quarter. [N.J.A.C. 7:27-22.16(e)]	Other: Monitored by continuous emission monitors, continuous opacity monitor, continuous flue gas flow monitor, and continuous data recorders. Equipment specification, calibration and operating procedures, and data evaluation and reporting procedures shall be approved by the Chief, BTS.[N.J.A.C. 7:27-22.16(e)].	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously or manual logging of parameter in a log book.  Written reports of excess emissions shall be reported on EEMPR forms and shall include the magnitude of excess emissions, the reasons for these exceedances and the corrective action taken.  When no excess emissions have occurred, or the continuous monitoring systems have been inoperative, repaired, or adjusted, such information shall be stated in the report.  EEMPR forms are available from REO.  [N.J.A.C. 7:27-22.16(e)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): Every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1). Within thirty (30) days of the close of each calendar quarter, the reports shall be submitted to the Chief, REO, and Chief, BTS. [N.J.A.C. 7:27-22.16(e)]

### New Jersey Department of Environmental Protection Facility Specific Requirements

Date: 12/16/2010

	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
Ref.#	TSP <= 700.8 tons/yr. Annual limit based on preconstruction permit is in effect until April 30, 2010. Annual limit of 210.2 tons/yr, based on MM 080001 application, will be in effect from May 1, 2010.  [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
0	PM-10 (Total) <= 952.52 tons/yr. Based on stack test results.  New Annual limit will be established after the installation of SCR and from new first stack test results. That limit will be in effect from May 1, 2010. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None:
+	VOC (Total) <= 87.6 tons/yr. Annual limit based on preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.
12	NOx (Total) <= 5,022.4 tons/yr. Annual limit based on preconstruction permit is in effect until April 30, 2012. Annual limit of 770.9 tons/yr, based on SM 100003 application, will be in effect from May 1, 2012. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None:
13	CO <= 503.7 tons/yr. Annual limit based on preconstruction permit. [N.J.A.C. 7:27-22.16(o)]	None.	None:	None.
14	SO2 <= 7,376 tons/yr. Annual limit based on preconstruction permit (worst case operating scenario based on firing #6 fuel oil) is in effect until April 30, 2010.  Annual limit of 1051.2 tons/yr, based on MM 080001 application, will be in effect from May 1, 2010  . [N.J.A.C. 7:27-22.16(a)]	None.	None.	None:
<del>15</del>	Total HAPs <= 480 tons/yr. Annual limit based on operating permit application and preconstruction permit. [N.J.A.C. 7:27-22.16(a)] &. [N.J.A.C. 7:27-22.16(e)]	None:	None:	None.
<del>16</del>	Arsenic compounds <= 17.09 tons/yr. Annual limit based on preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None:	None:	None:
<del>17</del>	Beryllium compounds <= 0.0876 tons/yr.  Annual limit based on preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None:	None.

Ref.#	11 quirement	Monitoring Requirement	Recordkeeping Requirement	Submittel/Action D
<del>30</del>	Aerolein <- 0.079 tons/yr. Annual limit based on Initial Operating Permit application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	Submittal/Action Requirement  None.
31	Benzene <= 0.351 tons/yr. Annual limit based on Initial Operating Permit application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
<del>32</del>	Benzyl chloride <- 0.193 tons/yr. Annual limit based on Initial Operating Permit application. [N.J.A.C. 7:27-22.16(a)]	None:	None.	None:
33	Cyanide compounds <= 0.674 tons/yr.  Annual limit based on Initial Operating  Permit application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None:
34	Dimethyl sulfate < 0.013 tons/yr. Annual limit based on Initial Operating Permit application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
- 1	Formaldehyde < 1.58 tons/yr. Annual limit based on Initial Operating Permit application. [N.J.A.C. 7:27 22.16(a)]	None.	None.	None.
6	Methylhydrazine <= 0.046 tons/yr. Annual limit based on Initial Operating Permit application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
7	Dioxins/Furans (Total) < 0.00000124 ton/yr . Annual limit based on Initial Operating Permit application. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
	The permittee shall operate the Ammonia Injection Systems after the SCR system is installed and made operational during all periods that the unit#2 is operating, except during start-up, or shutdown. [N.J.A.C. 7:27-22.16(a)]	Other: The permittee shall monitor the time-periods when the Ammonia Injection System is operating, except during start-up, or shutdown.[N.J.A.C. 7:27-22.16(o)].	Other: The permittee shall record by manual logging or storing data in a computer data system, the date and time when Ammonia Injection System is operating.[N.J.A.C. 7:27-22.16(o)].	None.

### **New Jersey Department of Environmental Protection Facility Specific Requirements**

**Emission Unit:** 

U2 Unit 2 Steam Generator

**Operating Scenario:** 

OS1 Unit 2 Firing non-anthracite coal with up to 8% Tire Derived Fuel (TDF), Operating with ESP, SNCR, SCR, FGD, OFA, and Sorbent Injection (SI), OS3 Unit 2 Firing non-anthracite coal w/ up to 8% Tire Derived Fuel (TDF), and/or #6FO, Operating w/ ESP,

SNCR, SCR, FGD, OFA, and Sorbent Injection (SI)

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Applicable RACT requirements are listed in the group GR1. Requirements listed under GR1 are in effect before and after the installation and operation of SCR.	None.	None.	None.
	Applicable control devices requirements are listed in the group GR2.			
	Applicable requirements for hourly emission limits for HAPs and other pollutants are listed in GR4.			
	Requirements listed under these groups are applicable to U2, OS1 - OS5. [N.J.A.C. 7:27-22.16(a)]		the size one is	Submit notification: As per the approved
2	If FGD is operating, opacity events would not be considered an exceedance. This exemption to opacity is applied when coal or combination of coal and #6 oil are combinated in the boiler. Please see at GR1,	Other: If the opacity measured at the monitor exceeds the limit specified in the Applicable Requirement, the permittee shall take action to reduce opacity to below that limit.[N.J.A.C. 7:27-22.16(e)].	Other: The permittee shall notify SRO if COM indicates that opacity has been exceeded during times when the wet serubber malfunctions, becomes inoperable, or is bypassed.[N.J.A.C. 7:27-22.16(e)].	schedule, the facility shall report to the Chief, REO, in writing within three (3) working days after the event of any opacity exceedance.  [N.J.A.C. 7:27-22.16(e)]
3	reference #2. [N.J.A.C. 7:27-22.16(e)]  NOx (Total) <= 341 ppmvd @ 7% O2. The maximum allowable NOx concentration rate for coal, based on 0.60 lb/MMBtu, when combusting coal, with or without tire-derived fuel, in a cyclone fired wet boiler. [N.J.A.C. 7:27-22.16(e)]	NOx (Total): Monitored by continuous emission monitoring system continuously; based on a rolling 1 hour average. [N.J.A.C. 7:27-22.16(e)]	NOx (Total): Recordkeeping by strip chart or data acquisition (DAS) system continuously. [N.J.A.C. 7:27-22.16(e)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): Every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-22.16(0)]
4	Hours of Operation While Firing Coal <- 8,760 hr/yr. [N.J.A.C. 7:27-22.16(e)]	None.	None:	None:

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
10	SO2 <= 0.25 lb/MMBTU based on 24 hour average, effective from May 1, 2010. Maximum emission limit based on the Administrative Consent Order issued on January 24, 2006 and Administrative Consent Order Amendment issued on January 13, 2010. [N.J.A.C. 7:27-22.16(a)]	SO2: Monitored by continuous emission monitoring system continuously, based on a daily average. A continuous emissions monitoring system shall be operated under N.J.A.C. 7:27-19.18. [N.J.A.C. 7:27-22.16(o)]	SO2: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. The owner or operator shall calculate the average SO2 emission rate using the data from such a system for the SO2 concentration in the flue gas and either the flue gas flow rate or the fuel flow rate. To calculate the emission rate using the SO2 concentration and fuel flow rate, the owner or operator shall use the conversion procedure set forth in the Acid Rain regulations at 40 CFR 75, Appendix F, or an alternative procedure that the Department and EPA determines will yield the same result. [N.J.A.C. 7:27-22.16(0)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): Every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-22.16(o)]
11	SO2 <= 0.15 lb/MMBTU based on a 30-day rolling average, effective from May 1, 2010. Maximum emission limit based on the Administrative Consent Order issued on January 24, 2006 and Administrative Consent Order Amendment issued on January 13, 2010. [N.J.A.C. 7:27-22.16(a)]	SO2: Monitored by continuous emission monitoring system continuously, based on a rolling 30 day average (rolling 1 day basis). A continuous emissions monitoring system shall be operated under N.J.A.C. 7:27-19.18. [N.J.A.C. 7:27-22.16(o)]	SO2: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. The owner or operator shall calculate the average SO2 emission rate using the data from such a system for the SO2 concentration in the flue gas and either the flue gas flow rate or the fuel flow rate. To calculate the emission rate using the SO2 concentration and fuel flow rate, the owner or operator shall use the conversion procedure set forth in the Acid Rain regulations at 40 CFR 75, Appendix F, or an alternative procedure that the Department and EPA determines will yield the same result. [N.J.A.C. 7:27-22.16(0)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): Every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-22.16(o)]
12 	NOx (Total) <= 0.15 lb/MMBTU based on 24 hour rolling average, effective from May 1, 2010. Maximum emission limit based on the Administrative Consent Order issued on January 24, 2006 and Administrative Consent Order Amendment issued January 13, 2010. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by continuous emission monitoring system continuously, based on a daily average. A continuous emissions monitoring system shall be operated under N.J.A.C. 7:27-19.18. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously The owner or operator shall calculate the average NOx emission rate using the data from such a system for the NOx concentration in the flue gas and either the flue gas flow rate or the fuel flow rate. To calculate the emission rate using the NOx concentration and fuel flow rate, the owner or operator shall use the conversion procedure set forth in the Acid Rain regulations at 40 CFR 75, Appendix F, or an alternative procedure that the Department and EPA determines will yield the same result. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): Every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-22.16(o)]

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
13	NOx (Total) <= 0.11 lb/MMBTU based on a 30-day rolling average, effective from May 1, 2010. Maximum emission limit based on the Administrative Consent Order issued on January 24, 2006 and Administrative Consent Order Amendment issued January 13, 2010. [N.J.A.C. 7:27-22.16(a)]	NOx (Total): Monitored by continuous emission monitoring system continuously, based on a rolling 30 day average (rolling 1 day basis). A continuous emissions monitoring system shall be operated under N.J.A.C. 7:27-19.18. [N.J.A.C. 7:27-22.16(o)]	NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously The owner or operator shall calculate the average NOx emission rate using the data from such a system for the NOx concentration in the flue gas and either the flue gas flow rate or the fuel flow rate. To calculate the emission rate using the NOx concentration and fuel flow rate, the owner or operator shall use the conversion procedure set forth in the Acid Rain regulations at 40 CFR 75, Appendix F, or an alternative procedure that the Department and EPA determines will yield the same result. [N.J.A.C. 7:27-22.16(o)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): Every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-22.16(o)]
14	SO2 < 350 ppmvd @ 7% O2. Maximum allowable concentration based on preconstruction permit, when firing non-anthracite coal and/or low sulfur coal with/without TDF. This short term sulfur dioxide emission limit does not include SO2 emissions during periods when the scrubber is malfunctioning or is out of service for the maintenance or correction of a scrubber malfunction; or during periods of boiler start-up and shutdown. [N.J.A.C. 7:27-22.16(a)]	SO2: Monitored by continuous emission monitoring system continuously, based on a 30 day rolling average. If a continuous SO2 emission monitor system malfunction or outage continues longer than twenty four (24) hours, starting on the 24th hour, and every three (3) hours thereafter, the permitee shall sample the coal fired to the Unit#2 not being continuously monitored for SO2 emissions, composite the samples taken each day into a daily sample, analyze the daily coal sample for sulfur content according to ASTM methods D2013, D3173, D3177, and D3180, and record the results. In lieu of the daily coal sample, the permitee may use real time data from nuclear analyzer approved by Chief, BTS. [N.J.A.C. 7:27-22.16(e)]	SO2: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(e)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): Every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1) electronically through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27-22.16(e)]
15	SO2 <- 350 ppmvd @ 7% O2. Maximum allowable concentration based on preconstruction permit, when firing non-anthracite coal and /or low sulfur coal with/without TDF.  This short term sulfur dioxide emission limit does not include SO2 emissions during periods when the scrubber is malfunctioning or is out of service for the maintenance or correction of a scrubber malfunction; or during periods of boiler start-up and shutdown.  [N.J.A.C. 7:27-22.16(a)]	SO2: Monitored by stack emission testing once initially and prior to permit renewal, based on the average of three 1-hour tests. Refer to stack testing requirements specified in this permit at U2 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(e)]	SO2: Recordkeeping by stack test results once initially and prior to permit renewal. Refer to stack testing requirements specified in this permit at U2 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(e)]	Submit a stack test protocol: Once initially and prior to permit renewal. Refer to stack testing requirements specified in this permit at U2 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(e)]

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### New Jersey Department of Environmental Protection Facility Specific Requirements

Date: 12/16/2010

Ref.#	11 qui cinent	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
16	SO2 <- 2,315 ppmvd @ 7% O2 maximum allowable concentration based on preconstruction permit, when firing non-anthracite coal and/or low sulfur coal with/without TDF during periods when the scrubber is malfunctioning or is out of service for the maintenance or correction of a scrubber malfunction. [N.J.A.C. 7:27-22.16(a)]	SO2: Monitored by continuous emission monitoring system continuously, based on a 30 day rolling average. If a continuous SO2 emission monitor system malfunction or outage continues longer than twenty four (24) hours, starting on the 24th hour, and every three (3) hours thereafter, the permittee shall sample the coal fired to the Unit#2 not being continuously monitored for SO2 emissions, composite the samples taken each day into a daily sample, analyze the daily coal sample for sulfur content according to ASTM methods D2013, D3173, D3177, and D3180, and record the results. In lieu of the daily coal sample, the permitee may use real time data from nuclear analyzer approved by Chief, BTS. [N.J.A.C. 7:27-22.16(e)]	SO2: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(e)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): Every April 30, July 30, Octobe 30, and January 30 for the preceding quarte year (the quarter years begin on January 1, April 1, July 1, and October 1) electronicall through the NJDEP online EEMPR web portal. [N.J.A.C. 7:27 22.16(e)]
	SO2 <- 2,315 ppmvd @ 7% O2 maximum allowable concentration based on precentration permit, when firing non-anthracite coal and/or low sulfur coal with/without TDF during periods when the scrubber is malfunctioning or is out of service for the maintenance or correction of a scrubber malfunction. [N.J.A.C. 7:27-22.16(e)]	SO2: Monitored by stack emission testing once initially and prior to permit renewal, based on the average of three 1 hour tests. Refer to stack testing requirements specified in this permit at U2 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(e)]	SO2: Recordkeeping by stack test results once initially and prior to permit renewal. Refer to stack testing requirements specified in this permit at U2 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(e)]	Submit a stack test protocol: Once initially and prior to permit renewal. Refer to stack testing requirements specified in this permit at U2 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(e)]
	TSP <= 0.03 lb/MMBTU based on a 30-day rolling average, effective from May 1, 2010. Maximum emission limit based on the Administrative Consent Order issued on January 24, 2006 and Administrative Consent Order Amendment issued on January 13, 2010.  [N.J.A.C. 7:27-22.16(a)]	TSP: Monitored by stack emission testing annually, based on the average of three Department validated stack test runs . [N.J.A.C. 7:27-22.16(o)]	TSP: Recordkeeping by stack test results annually. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: Annually. Refer to stack testing requirements specified in this permit at U2 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(o)]

BOP100003

### New Jersey Department of Environmental Protection Facility Specific Requirements

Date: 12/16/2010

**Emission Unit:** 

U3 Unit 3 Steam Generator

Operating Scenario:

**OS Summary** 

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Conduct comprehensive stack testing at emission point, PT3, as follows: For #6 fuel oil firing, stack tests for criteria pollutants (TSP, PM-10, VOC, CO & NOx), and mercury shall be conducted annually to demonstrate compliance with the emission limits. Ammonia shall be stack tested annually. The first of the annual stack tests must be conducted within 180 days from the date of the approved initial operating permit. Additionally, while firing #6 fuel oil, conduct stack test for criteria pollutants (TSP, PM-10, NOx, CO, & VOC), heavy metals (As, Be, Cd, Cu, Cr, Co, Pb, Mn, Hg, Ni), ammonia, acid gases (H2SO4 & HF), and PAH within 42 months from the date of the approved Initial Operating Permit. Three consecutive stack testing runs shall be conducted with unit operating at between 90 -100% of maximum heat input. Heat input (MMBtu/hr, HHV) shall be determined for each stack test. The permittee shall conduct any additional stack emission testing for the pollutants for which an emission limit has been set in Section J, Facility Specific Requirements, of this Initial Title V Operating Permit, or any other air pollutants potentially emitted by the station, upon request by the Department. [N.J.A.C. 7:27-22.16(a)] & [N.J.A.C. 7:27-22.16(a)]	hAPs and other air contaminants, as applicable. (See Applicable Requirement). Permanent sampling and testing facilities shall be provided as required by the Department to determine the nature and quantity of emissions from the boilers. Such facilities shall conform to all applicable laws and regulations concerning safe construction or safe practices. [N.J.A.C. 7:27-22.16(e)] &. [N.J.A.C. 7:27-22.16(o)]	Recordkeeping by stack test results at the approved frequency [N.J.A.C. 7:27-22.16(e)] &. [N.J.A.C. 7:27-22.16(o)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule Submit a stack test protocol to the Bureau of Technical Services (BTS) at PO Box 437, Trenton, NJ 08625 within 60 days from the date of the approved initial operating permit. Within 30 days of protocol approval, the permittee must contact BTS at 609-530-4041 to schedule a mutually acceptable test date. See Applicable Requirement for test schedules. The stack test report must be submitted to BTS within 45 days after performing the stack test pursuant to N.J.A.C. 7:27-22.19(d). The test results must be certified by a New Jersey licensed professional engineer or certified industrial hygienist. A copy of the test results must be submitted with the operating permit renewal application due at least 12 months prior to expiration of the Operating Permit. Test results shall report lb/hr, lb/MMBtu(HHV), ng/dscm for PAH, and ppmvd @ 7% O2 except for particulate matter and PAH. [N.J.A.C. 7:27-22.16(e)] & [N.J.A.C. 7:27-22.18(h)]

Ref.#	Applicable Requirement	Monitoring Requirement	Recording Passing	
2	The permittee shall operate and maintain continuous emission monitors and continuous data recorders to measure and record the concentration of O2, nitrogen oxides (as NO2), SO2, and CO in accordance with a protocol approved by the Chief, BTS. [N.J.A.C. 7:27-22.16(e)]	Other: The continuous monitors shall be calibrated daily using calibration standards acceptable to the Department.[N.J.A.C. 7:27-22.16(e)].	Recordkeeping Requirement  Recordkeeping by data acquisition system (DAS) / electronic data storage continuously or manual logging of parameter in a log book.  Written reports of excess emissions shall be reported on EEMPR forms and shall include the magnitude of excess emissions, the reasons for these exceedances and the corrective action taken.  When no excess emissions have occurred, or the continuous monitoring systems have been inoperative, repaired, or adjusted, such information shall be stated in the report.  EEMPR forms are available from REO. [N.J.A.C. 7:27-22.16(e)]	(EEMPR): Every April 30, July 30, October 30, and January 30 for the preceding quart
3	The permittee shall operate and maintain a continuous opacity monitor and continuous data recorder to measure and record the opacity after cyclone on Unit #3 in accordance with a protocol approved by the Chief, BTS. [N.J.A.C. 7:27-22.16(e)]	Other: The continuous monitors shall be calibrated daily using calibration standards acceptable to the Department.[N.J.A.C. 7:27-22.16(e)].	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously or manual logging of parameter in a log book.  Written reports of excess emissions shall be reported on EEMPR forms and shall include the magnitude of excess emissions, the reasons for these exceedances and the corrective action taken.  When no excess emissions have occurred, or the continuous monitoring systems have been inoperative, repaired, or adjusted, such information shall be stated in the report.  EEMPR forms are available from REO.  [N.J.A.C. 7:27-22.16(e)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): Every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1). Within thirty (30) days of the close of each calendar quarter, the reports shall be submitted to the Chief, REO, and Chief, BTS. [N.J.A.C. 7:27-22.16(e)]
b	The permittee shall operate and maintain continuous monitor and recorder, approved by the Chief, BTS, in Unit #3 flue to monitor and record the flue gas volumetric low rate. [N.J.A.C. 7:27-22.16(e)]	Other: The continuous monitors shall be calibrated daily using calibration standards acceptable to the Department.[N.J.A.C. 7:27-22.16(e)].	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously or manual logging of parameter in a log book. [N.J.A.C. 7:27-22.16(e)]	None.
H H H H	The permittee shall not rely on the use of atermittent emission control strategies such a throitling back steam production, or other ispersion techniques as defined at 40 CFR art 51.1(h), as a means of demonstrating empliance with the ambient air quality andards specified at NJAC 7:27-13.  N.J.A.C. 7:27-22.16(e)]	None.	None.	None:

2.6.4	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
Ref.#	The permittee shall submit a quarterly excess emissions and monitoring systems performance report (EEMPR) to the Chief, REO, and Chief, BTS, within thirty (30) days of the close of each calendar quarter. [N.J.A.C. 7:27-22.16(e)]	Other: Monitored by continuous emission monitors, continuous opacity monitor, continuous flue gas flow monitor, and continuous data recorders. Equipment specification, calibration and operating procedures, and data evaluation and reporting procedures shall be approved by the Chief, BTS.[N.J.A.C. 7:27-22.16(e)].	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously or manual logging of parameter in a log book.  Written reports of excess emissions shall be reported on EEMPR forms and shall include the magnitude of excess emissions, the reasons for these exceedances and the corrective action taken.  When no excess emissions have occurred, or the continuous monitoring systems have been inoperative, repaired, or adjusted, such information shall be stated in the report.  EEMPR forms are available from REO.  [N.J.A.C. 7:27-22.16(c)]	Submit an Excess Emissions and Monitoring Systems Performance Report (EEMPR): Every April 30, July 30, October 30, and January 30 for the preceding quarter year (the quarter years begin on January 1, April 1, July 1, and October 1). Within thirty (30) days of the close of each calendar quarter, the reports shall be submitted to the Chief, REO, and Chief, BTS. [N.J.A.C. 7:27-22.16(e)]
1	TSP <= 753.4 tons/yr. Annual limit based on preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None:	None:	None.
3	PM-10 (Total) <= 2,215 tons/yr. Based on stack test results. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None:
<del>)</del>	VOC (Total) <= 100.7 tons/yr. Annual limit based on preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None:	None.
10	NOx (Total) <= 1,506.7 tons/yr. Annual limit based on preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	
11	CO <= 1,314 tons/yr. Annual limit based on preconstruction permit. [N.J.A.C.	None:	None:	None:
12	7:27-22.16(e)] SO2 <= 7,897.1 tons/yr. Annual limit based on preconstruction permit. [N.J.A.C.	None.	None.	None.
<del>13</del>	7:27-22.16(e)]  Total HAPs <= 124.94 tons/yr. Annual limit based on operating permit application and preconstruction permit. [N.J.A.C. 7:27-22.16(e)] &. [N.J.A.C. 7:27-22.16(e)]	None:	None:	None:
14	Arsenie compounds <= 0.789 tons/yr. Annual limit based on preconstruction permit. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None:
<del>15</del>	Beryllium compounds <= 0.176 tons/yr.  Annual limit based on preconstruction permit. [N.J.A.C. 7:27 22.16(e)]	None:	None:	Hollo

BOP100003

### New Jersey Department of Environmental Protection Facility Specific Requirements

Date: 12/16/2010

**Emission Unit:** 

**U3 Unit 3 Steam Generator** 

**Operating Scenario:** 

OS1 Unit 3 Firing No. 6 Oil Operating Cyclone and SNCR

Ref.#	Transie Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
+	Opacity <- 20 %. No visible emissions greater than 20% opacity, exclusive of visible condensed water vapor, except for a period of time of not longer than three (3) minutes in any consecutive 30 minute period. [N.J.A.C. 7:27-3.2(a)] & [N.J.A.C. 7:27-3.2(e)]	Opacity: Monitored by continuous opacity monitoring system continuously, based on any consecutive 30 minute period. If the opacity measured at the monitor exceeds the limit specified in the Applicable Requirement, the permittee shall take action to reduce opacity to below that limit. [N.J.A.C. 7:27 22.16(c)]	Opacity: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(e)]	Submit notification: As per the approved schedule, the facility shall report to the Chief, REO, in writing within three (3) working days after the event of any opacity exceedance.  [N.J.A.C. 7:27-22.16(e)]
2	Maximum allowable emission rate of particles based on heat input rate (MMBtu/hr), Particulate Emissions <= 172 lb/hr. [N.J.A.C. 7:27 - 4.2(a)]	Particulate Emissions: Monitored by stack emission testing annually, based on any 60 minute period. Refer to stack testing requirements for TSP specified in this permit at U3 OS Summary, Ref.#1. [N.J.A.C. 7:27 4.4] &. [N.J.A.C. 7:27 22.16(e)]	Particulate Emissions: Recordkeeping by stack test results annually. Refer to stack testing requirements for TSP specified in this permit at U3 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(a)]	Stack Test – Submit protocol, conduct test and submit results: As per the approved schedule. Refer to stack testing requirements for TSP specified in this permit at U3 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(a)]
	Sulfur Content in Fuel <= 2 % by weight. Maximum allowable sulfur content in fuel oil grades/viscosity (No. 6) and geographical zone (Zone 1). [N.J.A.C. 7:27-9.2(b)]	Sulfur Content in Fuel: Monitored by fuel sampling (e.g. oil) at the approved frequency, based on the averaging period as per Department approved test method. The permittee shall sample oil received at the station by collecting one (1) sample per month from each of the on-site tanks in accordance with ASTM Method D4507. The sulfur content of No. 6 fuel oil samples shall be determined using ASTM Method D1552. [N.J.A.C. 7:27-22.16(e)]	Sulfur Content in Fuel: Recordkeeping by certified lab analysis results quarterly: once per quarter; quarters shall begin on January 1, April 1, July 1, and October 1 of each year. The permittee shall keep operating logs to accurately maintain records of the date received, supplier's name and address, quantity received, and mean sulfur content of each shipment of oil received at the station. [N.J.A.C. 7:27-22.16(e)]	Submit a report: Annually to the Chief, REO. Within thirty (30) days from the end of each calendar year, the permittee shall report the sulfur content of oil for each calendar quarter in writing to the Chief, Southern Regional Enforcement Office. [N.J.A.C. 7:27-22.16(e)]
1	The owner or operator of any utility boiler, regardless of size, or any non-utility boiler with a maximum gross heat input of at least 50,000,000 Btu/hr shall not exceed concentrations of VOC (Total) <- 50 ppmvd @ 7% O2. [N.J.A.C. 7:27-16.8(b)1]	VOC (Total): Monitored by stack emission testing once initially and every 5 years, based on the average of three 1 hour tests; each performed over a consecutive 60-minute period specified by the Department and performed in compliance with N.J.A.C. 7:27-16.22 Refer to stack testing requirements specified in this permit at U3 OS Summary, Ref.#1. [N.J.A.C. 7:27-16.2(a)2]	VOC (Total): Recordkeeping by stack test results once initially and every 5 years. Refer to stack testing requirements specified in this permit at U3 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(e)]	Stack Test—Submit protocol, conduct test and submit results: As per the approved schedule. Refer to stack testing requirements specified in this permit at U3 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(e)]

### New Jersey Department of Environmental Protection Facility Specific Requirements

Date: 12/16/2010

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
Ke1.#	The owner or operator of any utility boiler, regardless of size, or any non-utility boiler with a maximum gross heat input of at least 50,000,000 Btu/hr shall not exceed concentrations of CO <= 100 ppmvd @ 7%	CO: Monitored by continuous emission monitoring system continuously, based on one calendar day, not including periods of equipment downtime. [N.J.A.C. 7:27-16.8(f)] &. [N.J.A.C. 7:27-16.23(a)1]	CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(e)]	None:
5	Adjust the combustion process in accordance with N.J.A.C. 7:27-19.16 by May 1 of each calendar year.  An exceedance of an emission limit which occurs during an adjustment of the combustion process, as a result of the adjustment, is not a violation of this permit. Before the combustion process adjustment begins, and after it has been completed, the maximum emission rate of NOx shall not exceed the maximum allowable emission rate specified in this approval. [N.J.A.C. 7:27-16.8(b)3]	Monitored by continuous emission monitoring system continuously, or periodic emission monitoring, annually, and inspection.  The owner or operator of the equipment or source operation shall:  1. Inspect the burner, and clean or replace any components of the burner as necessary to minimize total emissions of NOx and CO;  2. Inspect the flame pattern and make any adjustments to the burner necessary to optimize the flame pattern; and  3. Inspect the system controlling the air-to-fuel ratio, and ensure that it is correctly calibrated and functioning properly. [N.J.A.C. 7:27-19.16(a)]	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously and manual logging of pararmeter, annually. The owner/operator of the adjusted equipment or source operation shall record each adjustment conducted under N.J.A.C. 7:27-19.16(a) in a log book or other format approved in writing by the Department, containing the following information for each adjustment: 1. The date of adjustment and the times at which it began and ended; 2. The name, title, and affiliation of the person who made the adjustment; 3. The NOx concentration in the effluent stream, in either ppmdv or ppmv, after each adjustment was made; 4. The CO concentration in the effluent stream, in either ppmdv or ppmv, after each adjustment was made; 5. The concentration of O2 at which the CO and NOx concentrations were measured; and 6. Any other information which the Department or the EPA has required as a condition of approval of any permit or certificate issued for the equipment or source operation. [N.J.A.C. 7:27-19.16(c)]	Submit a report: Annually. Submit electronically an annual adjustment combustion process report to the Department within 45 days after the adjustment of the combustion process is completed, based on the gross heat input of the boiler in the format the Department specifies at its website. The report shall contain the following information:  1. The concentrations of NOx and CO in the effluent stream in ppmvd, and O2 in percendry basis, measured before and after the adjustment of the combustion process.  2. The converted emission values in lb/MM BTU for the measurements taken before and after the adjustment of the combustion process;  3. A description of any corrective actions taken as a part of the combustion adjustment; and  4. The type and amount of fuel used over the tamount of the process over the tamount adjustment.  [N.J.A.C. 7:27-19.16(c) and. [N.J.A.C. 7:27-19.16(d)]

Ref.#	11 qui ement	Monitoring Requirement	Recordkeeping Requirement	Submittel/Action D
1 th	NOx (Total) <= 0.2 lb/MMBTU, maximum allowable NOx emission rate.  When combusting fuel oil, the owner or operator of a tangential-fired utility boiler shall cause it to emit NOx at a rate no greater than the applicable maximum allowable NOx emission rate specifed in Table 1. [N.J.A.C. 7:27-19.4(a)] &. [N.J.A.C. 7:27-22.16(e)]	NOx (Total): Monitored by continuous emission monitoring system continuously, based on one calendar day average between May 1 and September 30, and a 30-day rolling average (rolling 1-day basis) from October 1 through April 30; and flue gas flow monitor and/or fuel flow instrument, continuously. [N.J.A.C. 7:27-19.4(a)]	NOx (Total): Recordkeeping by data acquisition system (DAS) / electronic data storage continuously and calculations. When continuous emission monitors (CEMs) are used to determine compliance with the approved NOx emission limits, B. L. England Station shall calculate the average NOx emission rate using the data from the CEM systems for the NOx	None.
	for the control of the second	betrapose es juga (la companya estado	concentration in the flue gas, and either the flue gas flow rate or the fuel flow rate. To calculate the emission rate using the NOx concentration and the fuel flow rate, B. L. England Station shall use the conversion procedure set forth in the Acid Rain regulations at 40 CFR Part 75, Appendix F, or an alternative procedure that the Department and EPA determines will yield the same result. [N.J.A.C. 7:27-19.4(a)]	The country of regions from an interest shall character at the country of the cou
	Maximum gross heat input from preconstruction permit, Maximum Gross Heat Input <- 1,720 MMBTU/hr (HHV). [N.J.A.C. 7:27 22.16(e)]	None.	None.	None.
	Hours of Operation While Firing Fuel Oil	None:	None:	None.
	Unit #3 boiler fuel limited to No. 6 fuel oil, and No. 2 fuel oil for start-up. [N.J.A.C.	Monitored by review of fuel delivery records per delivery. [N.J.A.C. 7:27-22.16(e)]	Recordkeeping by invoices / bills of lading per delivery. [N.J.A.C. 7:27-22.16(e)]	None.

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
<del>1</del>	Annual heat input to the cyclone boiler, based on the Maximum Gross Heat Input, is 15,067,200 MMBtu (IHIV)/any consecutive 365 days.  Total annual heat input during any consecutive 365-day period shall be calculated by adding the total heat input to the cyclone boiler for a given day to the total heat input during the preceding 364-day period.  Daily MMBtu fuel use shall be calculated using the following formula:  MMBtu/day = (x Mgal #6 fuel oil/day x 150 MMBtu/Mgal), where x = #6 fuel oil combusted daily.  This procedure will begin the first day following the issuance of the Operating Permit. This accounting will not include heat input for the days prior to the Operating	Monitored by fuel flow/firing rate instrument continuously, based on a consecutive 365 day period (rolling 1 day basis) and calculations. [N.J.A.C. 7:27-22.16(a)]	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. Compliance shall be determined based on a 365 consecutive day period computed with daily sums. [N.J.A.C. 7:27-22.16(a)]	Submit a report: As per the approved schedule, verify compliance with annual emission limits based on fuel usage. Results shall be reported annually within 30 days of the close of the calendar year. [N.J.A.C. 7:27-22.16(a)]
12	Permit approval. [N.J.A.C. 7:27-22.16(e)]  Sulfur Content in Fuel <= 1 % by weight based on preconstruction permit. Maximum allowable sulfur content of No. 6 fuel oil. [N.J.A.C. 7:27-22.16(a)]	Sulfur Content in Fuel: Monitored by fuel sampling (e.g. oil) each month during operation. The permittee shall sample oil received at the station by collecting one (1) sample per month from each of the on-site tanks in accordance with ASTM Method D4507. The sulfur content of No. 6 fuel oil samples shall be determined using ASTM Method D1552. [N.J.A.C. 7:27-22.16(e)]	Sulfur Content in Fuel: Recordkeeping by certified lab analysis results quarterly: once per quarter; quarters shall begin on January 1, April 1, July 1, and October 1 of each year. [N.J.A.C. 7:27-22.16(e)]	Submit a report: Annually to the Chief, REO. Within thirty (30) days from the end of each calendar year, the permittee shall report the sulfur content of oil for each calendar quarter in writing to the Chief, Southern Regional Enforcement Office. [N.J.A.C. 7:27-22.16(e)]
13	Particulate emissions from Unit #3 tangential-fired boiler shall be controlled by cyclone during all times when the unit is operating. [N.J.A.C. 7:27-22.16(e)]	Monitored by continuous opacity monitoring system continuously, based on any consecutive 30-minute period. [N.J.A.C. 7:27-22.16(e)]	Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(e)]	None.
14	Nitrogen oxides emissions shall be controlled by selective non-catalytic reduction. [N.J.A.C. 7:27-22.16(e)]	Monitored by continuous emission monitoring system continuously for the NOx concentration in the flue gas; and process monitoring system, continuously, for ammonia. [N.J.A.C. 7:27-22.16(e)]	continuously. [N.J.A.C. 7:27-22.10(6)]	None.
15	Maximum allowable emission rate based on preconstruction permit, TSP <= 172 lb/hr. [N.J.A.C. 7:27-22.16(e)]		TSP: Recordkeeping by stack test results annually. Refer to stack testing requirements specified in this permit at U3 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(e)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. Refer to stack testing requirements specified in this permit at U3 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(e)]

Ref.#	11 - Table 2 and all cineme	Monitoring Requirement	Recordkeeping Requirement	0.1
16	Maximum allowable emission rate based on stack test results. PM-10 (Total) <= 505.71 lb/hr. [N.J.A.C. 7:27-22.16(a)]	PM-10 (Total): Monitored by stack emission testing annually, based on each of three Department validated stack test runs. Refer to stack testing requirements specified in this permit at U3 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(o)]	PM-10 (Total): Recordkeeping by stack test results annually. Refer to stack testing requirements specified in this permit at U3 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(o)]	Submittal/Action Requirement  Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. Refer to stack testing requirement specified in this permit at U3 OS Summary Ref.#1. [N.J.A.C. 7:27-22.16(o)]
<del>17</del>	Maximum allowable emission rate based on preconstruction permit, VOC (Total) <= 23 lb/hr. [N.J.A.C. 7:27-22.16(e)]	VOC (Total): Monitored by stack emission testing at the approved frequency, based on any 60 minute period. Refer to stack testing requirements specified in this permit at U3 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(e)]	VOC (Total): Recordkeeping by stack test results at the approved frequency. Refer to stack testing requirements specified in this permit at U3 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(e)]	Stack Test—Submit protocol, conduct test and submit results: As per the approved schedule. Refer to stack testing requiremen specified in this permit at U3 OS Summary Ref.#1. [N.J.A.C. 7:27-22.16(e)]
18	Maximum allowable emission rate based on precenstruction permit, CO <= 300 lb/hr. [N.J.A.C. 7:27-22.16(e)]	CO: Monitored by stack emission testing at the approved frequency, based on the average of three 1-hour tests. Refer to stack testing requirements specified in this permit at U3-OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(e)]	CO: Recordkeeping by stack test results at the approved frequency. Refer to stack testing requirements specified in this permit at U3 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(e)]	Stack Test—Submit protocol, conduct test and submit results: As per the approved schedule. Refer to stack testing requirement specified in this permit at U3 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(e)]
9	Maximum allowable concentration rate based on preconstruction permit, CO <= 100 ppmvd @ 7% O2. [N.J.A.C. 7:27-22.16(e)]	CO: Monitored by continuous emission monitoring system continuously, based on a 3-hour rolling average based on a 1-hour block average and stack emission testing based on the average of three 1-hour tests at the approved frequency. Refer to stack testing requirements specified in this permit at U3 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(e)]	CO: Recordkeeping by data acquisition system (DAS) / electronic data storage continuously and stack test results at the approved frequency. Refer to stack testing requirements specified in this permit at U3 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(e)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. Refer to stack testing requirement specified in this permit at U3 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(e)]
1	Maximum allowable emission rate based on preconstruction permit, NOx (Total) <= 344 lb/hr. [N.J.A.C. 7:27-22.16(e)]	NOx (Total): Monitored by stack emission testing at the approved frequency, based on the average of three 1-hour tests. Refer to stack testing requirements specified in this permit at U3 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(e)]	NOx (Total): Recordkeeping by stack test results at the approved frequency. Refer to stack testing requirements specified in this permit at U3 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(e)]	Stack Test - Submit protocol, conduct test and submit results: As per the approved schedule. Refer to stack testing requirements specified in this permit at U3 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(e)]
	NOx (Total) <= 140 ppmvd @ 7% O2.  Maximum concentration value from preconstruction permit,. [N.J.A.C.  7:27-22.16(e)]	NOx (Total): Monitored by continuous emission monitoring system continuously, based on a 3 hour rolling average based on a 1 hour block average and stack emission testing based on the average of three 1 hour tests at the approved frequency. Refer to	NOx (Total): Recordkeeping by strip chart, data acquisition (DAS) system, or other method approved by BTS continuously and stack test results at the approved frequency. Refer to stack testing requirements specified in this permit at U3 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(e)]	Stack Test—Submit protocol, conduct test and submit results: As per the approved schedule. Refer to stack testing requirements specified in this permit at U3 OS Summary, Ref.#1. [N.J.A.C. 7:27-22.16(e)]

BOP100003

### New Jersey Department of Environmental Protection Facility Specific Requirements

Date: 12/16/2010

**Emission Unit:** 

**U6 Emergency Fire Water Pump Engine** 

**Operating Scenario:** 

**OS Summary** 

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1.	Annual emission limit based on operating permit application. TSP <- 1.53 tons/yr.	None:	None:	None.
2	(N.J.A.C. 7:27-22.16(a)]  Annual emission limit based on operating permit application. PM-10 (Total) <= 1.53 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
3	Annual emission limit based on operating permit application. VOC (Total) <= 1.8 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None:	
4	Annual emission limit based on operating permit application. CO <- 4.69 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None:	None:	None.
5	Annual emission limit based on operating permit application. SO2 <= 1.49 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	Annual emission limit based on operating permit application. NOx (Total) <= 21.6 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	140HC.

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### New Jersey Department of Environmental Protection Facility Specific Requirements

Date: 12/16/2010

**Emission Unit:** 

**U6 Emergency Fire Water Pump Engine** 

**Operating Scenario:** 

**OS1 Emergency Fire Water Pump Engine** 

Ref.#	Trtoquirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
+	No visible emissions greater than 20% opacity, exclusive of visible condensed water vapor, for more than 10 consecutive seconds. Opacity <= 20 %. [N.J.A.C. 7:27-3.5]	None.	None.	None.
2	Maximum allowable particulate emission limit from the combustion of fuel based on rated heat input of source. Particulate Emissions <= 0.672 lb/hr. [N.J.A.C. 7:27-4.2(a)]	None.	None.	None.
3	Maximum allowable sulfur content in fuel oil by fuel oil type/viscosity and geograghical zone. Sulfur Content in Fuel <= 0.3 % by weight. [N.J.A.C. 7:27- 9.2(b)]	Sulfur Content in Fuel: Monitored by fuel sampling (e.g. oil) once per bulk fuel shipment. [N.J.A.C. 7:27-9.2(b)]	Sulfur Content in Fuel: Recordkeeping by fuel certification receipts once per bulk fuel shipment. Records of the name of the oil supplier and a statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil as specified at 40 CFR Part 60.41c shall be maintained. [N.J.A.C. 7:27-9.2(b)]	None.
4	Fuel use limited to diesel fuel. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
	Maximum Gross Heat Input <= 1.12 MMBTU/hr (HHV). [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
	Maximum emission rate based on operating permit application. TSP <= 0.35 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
	Maximum emission rate based on operating permit application. PM-10 (Total) <= 0.35 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
1	Maximum emission rate based on operating permit application. VOC (Total) <= 0.41 (b/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
11	Maximum emission rate based on operating permit application. CO <= 1.07 lb/hr. N.J.A.C. 7:27-22.16(a)]	None:	None.	None.

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### New Jersey Department of Environmental Protection Facility Specific Requirements

Date: 12/16/2010

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
10	Maximum emission rate based on operating permit application. SO2 <= 0.34 lb/hr.	None.	None.	None.
11	[N.J.A.C. 7:27-22.16(a)]  Maximum emission rate based on operating permit application. NOx (Total) <= 4.94 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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New Jersey Department of Environmental Protection Facility Specific Requirements Date: 12/16/2010

**Emission Unit:** 

**U7** Coal and Tire-Derived Fuel Handling

**Operating Scenario:** 

OS1 Coal Handling at Rotary Dumper/Hopper

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement		
1	Maximum allowable emission rate for particles, Particulate Emissions <= 0.5 lb/hr. [N.J.A.C. 7:27-6.2(a)]	None.	None.	None.		
2	Coal unloading, processing and transferring operations shall be covered. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.		
3	Fugitive dust emissions from coal unloading shall be controlled by surfactant-based wet suppression. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.		
4.0	Feed rate of coal transferred from rotary dumper to concrete hoppers. Coal Flowrate = 1,200 tons/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.		
5	Maximum emission rate from operating permit application. TSP <= 0.5 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None:	None.		
6	Maximum emission rate from operating permit application. PM-10 (Total) <= 0.21 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.		

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#### New Jersey Department of Environmental Protection Facility Specific Requirements

Date: 12/16/2010

**Emission Unit:** 

**U7 Coal and Tire-Derived Fuel Handling** 

**Operating Scenario:** 

OS2 Coal handling on receiving conveyors #11 & #12 (underground with dust suppression)

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Maximum allowable emission rate for particles, Particulate Emissions <= 0.5 lb/hr. [N.J.A.C. 7:27-6.2(a)]	None:	None:	None:
2	Coal unloading, processing and transferring operations shall be covered. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
3	Fugitive dust emissions from coal receiving shall be controlled by surfactant-based wet suppression. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
4	Feed rate of coal transferred from rotary dumper to receiving conveyor(s) #11 & #12. Coal Flowrate <= 1,500 tons/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None:	None.
5	Maximum emission rate from operating permit application. TSP <= 0.5 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None:	None:
6	Maximum emission rate from operating permit application. PM-10 (Total) <= 0.21 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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#### New Jersey Department of Environmental Protection Facility Specific Requirements

Date: 12/16/2010

**Emission Unit:** 

**U7 Coal and Tire-Derived Fuel Handling** 

**Operating Scenario:** 

OS4 Coal Handling on Reclaim Conveyors #15 & #16 with vibrating feeders to Transfer Tower

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement		
1	Maximum allowable emission rate for particles, Particulate Emissions <= 0.5 lb/hr. [N.J.A.C. 7:27-6.2(a)]	None:	None.	None:		
2	Coal unloading, processing and transferring operations shall be covered. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.		
3	Feed rate of coal transferred from reclaim conveyors #15 & #16 to transfer conveyor #17 at transfer tower. Coal Flowrate <= 400 tons/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.		
4	Reclaim vibrating feeders shall be adjusted to achieve the allowable total flow of coal.  [N.J.A.C. 7:27-22.16(a)]	Monitored by gravimetric monitoring continuously. [N.J.A.C. 7:27-22.16(a)]  Recordkeeping by data acquisition system (DAS) / electronic data storage continuously. [N.J.A.C. 7:27-22.16(e)]		None.		
5	Fugitive dust emissions from Conveyor #16 vibrating feeders shall be controlled by surfactant-based wet suppression. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.		
6	Maximum emission rate from operating permit application. TSP <= 0.18 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None:	None.		
7	Maximum emission rate from operating permit application. PM-10 (Total) <= 0.062 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.		

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#### New Jersey Department of Environmental Protection **Facility Specific Requirements**

Date: 12/16/2010

**Emission Unit:** 

U7 Coal and Tire-Derived Fuel Handling

**Operating Scenario:** 

OS5 Coal Handling at Crusher 1 Hopper (with dust suppression)

Def#	A. P. II D.						
Ref.#		Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement			
1	Maximum allowable emission rate for particles, Particulate Emissions <- 0.5 lb/hr. [N.J.A.C. 7:27 - 6.2(a)]	None.	None.	None.			
2	Coal unloading, processing and transferring operations shall be covered. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.			
3	The dust suppression system will be operating while the coal crushers 1 and/or 2 are in operation. The dust suppression system consists of water spray or equivalent. [N.J.A.C. 7:27-22.16(e)]	Monitored by visual determination at the approved frequency. The owner/operator shall observe water spray, or equivalent dust suppression system, is operating while the coal crushers 1 and/or 2 are in operation.  [N.J.A.C. 7:27-22.16(e)]	Recordkeeping by manual logging of parameter at the approved frequency. Operator shall record the dates and times (start and stop) that the dust suppression system is in operation in a permanently bound logbook. [N.J.A.C. 7:27-22.16(a)]	None.			
4	Feed rate of coal transferred from transfer conveyor #17 to crusher hopper and crusher 1, Coal Flowrate <= 450 tons/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.			
	The online nuclear cross belt analyzer shall be maintained and operated on the 30" conveyor #17 before the crusher according to protocol approved by BTS. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.			
	Maximum emission rate from operating permit application. TSP <= 0.052 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.			
	Maximum emission rate from preconstruction permit. PM-10 (Total) <= 0.025 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.			

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#### New Jersey Department of Environmental Protection Facility Specific Requirements

Date: 12/16/2010

**Emission Unit:** 

**U7 Coal and Tire-Derived Fuel Handling** 

**Operating Scenario:** 

OS6 Coal Handling at Shaker Unloading Hopper

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement		
1	Maximum allowable emission rate for particles, Particulate Emissions <= 0.5 lb/hr. [N.J.A.C. 7:27-6.2(a)]	None:	None.	None.		
2	Coal unloading, processing and transferring operations shall be covered. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.		
3	Feed rate of coal transferred from railear shaker unloader/hopper to receiving conveyor #1. Coal Flowrate <= 600 tons/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None:		
4	Maximum emission rate from operating permit application. TSP <= 0.18 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.		
5	Maximum emission rate from operating permit application. PM-10 (Total) <= 0.062 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.		

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#### New Jersey Department of Environmental Protection **Facility Specific Requirements**

Date: 12/16/2010

**Emission Unit:** 

**U7 Coal and Tire-Derived Fuel Handling** 

**Operating Scenario:** 

OS7 Coal Handling at Crusher 2 Hopper (with dust suppression)

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement		
+	Maximum allowable emission rate for particles, Particulate Emissions <- 0.5 lb/hr. [N.J.A.C. 7:27-6.2(a)]	None:	None.			
2	Coal unloading, processing and transferring operations shall be covered. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.		
3	The dust suppression system will be operating while the coal crushers 1 and/or 2 are in operation. The dust suppression system consists of water spray or equivalent. [N.J.A.C. 7:27-22.16(e)]	Monitored by visual determination at the approved frequency. The owner/operator shall observe water spray, or equivalent dust suppression system, is operating while the coal crushers 1 and/or 2 are in operation.  [N.J.A.C. 7:27-22.16(e)]	Recordkeeping by manual logging of parameter at the approved frequency. Operator shall record the dates and times (start and stop) that the dust suppression system is in operation in a permanently bound logbook. [N.J.A.C. 7:27-22.16(a)]	None.		
	Feed rate of coal transferred from transfer conveyor #1 to crusher hopper and crusher 2, Coal Flowrate <= 450 tons/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.		
	Maximum emission rate from operating permit application. TSP <= 0.052 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None:	None.	None:		
	Maximum emission rate from preconstruction permit. PM-10 (Total) <= 0.025 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.		

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New Jersey Department of Environmental Protection Facility Specific Requirements Date: 12/16/2010

**Emission Unit:** 

U7 Coal and Tire-Derived Fuel Handling

**Operating Scenario:** 

OS10 Coal/Tire-Derived Fuel (TDF) Handling on 30" main feed Conveyor #2 (with dust suppression)

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
†	Maximum allowable emission rate for particles, Particulate Emissions <= 0.5 lb/hr. [N.J.A.C. 7:27 - 6.2(a)]	None.	None.	None.
2	Coal unloading, processing and transferring operations shall be covered. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
3	Feed rate of coal/TDF transferred from erusher house to tripper conveyor #3 at the power house. Coal/TDF Flowrate <= 420 tons/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
4	Fugitive dust emissions from coal/TDF conveying shall be controlled by surfactant-based wet suppression. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	Maximum emission rate from operating permit application. TSP <= 0.18 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
6	Maximum emission rate from operating permit application. PM-10 (Total) <= 0.062 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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#### New Jersey Department of Environmental Protection Facility Specific Requirements

Date: 12/16/2010

**Emission Unit:** 

**U7 Coal and Tire-Derived Fuel Handling** 

**Operating Scenario:** 

OS11 Coal/Tire-Derived Fuel Handling on Tripper Conveyor #3 to Unit 1 Coal Bunker

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
+	Maximum allowable emission rate for particles, Particulate Emissions	None.	None:	None.
2	Coal unloading, processing and transferring operations shall be covered. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
3	Maximum limit of blended coal and/or TDF transferred from tripper conveyor #3 to Unit 1 bunker, Coal/TDF Flowrate <- 420 tons/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
4	TSP: Maximum emission rate from operating permit application is Below Reporting Threshold. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
-	PM-10 (Total): Maximum emission rate from operating permit application is Below Reporting Threshold. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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## New Jersey Department of Environmental Protection Facility Specific Requirements

Date: 12/16/2010

**Emission Unit:** 

**U7 Coal and Tire-Derived Fuel Handling** 

**Operating Scenario:** 

OS12 Coal Handling on Tripper Conveyor #3 to Unit 2 Coal Bunker

		Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
Ref.#	Applicable Requirement	Monteoring readers	Nama	None.
1	Maximum allowable emission rate for particles, Particulate Emissions <= 0.5 lb/hr.	None.	None.	
	[N.J.A.C. 7:27-6.2(a)]		None.	None.
2	Coal unloading, processing and transferring operations shall be covered. [N.J.A.C.	None.		
	7:27-22.16(a)]		None.	None.
3	Maximum limit of non-anthracite coal and/or TDF transferred from tripper conveyor #3 to Unit 2 bunker, Coal/TDF Total Material Transferred <= 420 tons/hr. [N.J.A.C. 7:27-22.16(a)]	None.		None.
4	TSP: Maximum emission rate from operating permit application is Below Reporting Threshold. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.
5	PM-10 (Total): Maximum emission rate from operating permit application is Below Reporting Threshold. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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## New Jersey Department of Environmental Protection Facility Specific Requirements

Date: 12/16/2010

**Emission Unit:** 

**U8 Unit 3 Cooling Tower** 

**Operating Scenario:** 

**OS Summary** 

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submitted/A (C. D.
- 1	Annual emission limit based on maximum hours of operation. TSP <- 127.5 tons/yr. [N.J.A.C. 7:27-22.16(e)]	None.	None.	Submittal/Action Requirement
	Annual emission limit based on maximum hours of operation. PM-10 (Total) <= 127.5 tons/yr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.

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#### New Jersey Department of Environmental Protection Facility Specific Requirements

Date: 12/16/2010

**Emission Unit:** 

**U8 Unit 3 Cooling Tower** 

**Operating Scenario:** 

**OS1 Cooling Tower** 

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement			
023	Maximum allowable particulate emission rate from source emission point based on 99% efficiency of collection or based on 0.02 grains per SCF of stack gas flow as determined in the Table at N.J.A.C. 7:27-6.2(a) Particulate Emissions <= 30 lb/hr. [N.J.A.C. 7:27-6.2(a)]		None.	None.			
2 2	Opacity <= 20 %. Particulate emissions shall be no greater than 20% opacity, exclusive of visible condensed water vapor, except for a period of not longer than three minutes in any consecutive 30 minute period. [N.J.A.C. 7:27-6.2(e)]	None.	None.	None.			
3	This source shall be equipped with high efficiency drift eliminators. The quantity of drift shall be less than 0.002% of the circulating water flow. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.			
4 021 M	Maximum flowrate of cooling tower eirculating water. Flowrate <= 63,500 gal/min. [N.J.A.C. 7:27-22.16(e)]	None.	None:	par weeks year other but			
5	The natural draft cooling tower water shall be salt water. [N.J.A.C. 7:27-22.16(e)]	None.	None:	None.			
6	Water treatment chemicals containing hexavalent chromium shall not be added in the cooling tower circulating water. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None.			
<b>7</b> n 3	Sea salt concentration in the cooling tower circulating water shall be 45,000 ppm or less. [N.J.A.C. 7:27-22.16(e)]	None.	None.	None:			
8	Maximum emission rate from preconstruction pormit. TSP <= 29.11 lb/hr. [N.J.A.C. 7:27-22.16(e)]	None.	None:	None.			
9	Maximum emission rate from operating permit application. PM-10 (Total) <= 29.11 lb/hr. [N.J.A.C. 7:27-22.16(a)]	None.	None.	None.			

Date: 12/16/10

## New Jersey Department of Environmental Protection Emission Unit/Batch Process Inventory

U 7 Fuel Hand. Coal and Tire-Derived Fuel Handling

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Ann Oper. I	Hours	VOC		fm)	(de	mp. eg F)
OS1	FH-1	Coal Handling at Rotary Dumper/ Hopper	Normal - Steady State		(-)	PT22		Min.	Max.	Range	Min.	Max.	Min.	Max
OS2	FH-2	Coal handling on receiving conveyors #11 & #12 (underground with dust suppression)	Normal - Steady State	E10		PT23								
<del>0S3</del>	FH-3	Coal Handling on Stackout Conveyor #13	Normal - Steady - State	<del>-E11</del>		PT24								
OS4	FH-17	Coal Handling on Reclaim Conveyors #15 & #16 with vibrating feeders to Transfer Tower	Normal - Steady State	E12										
OS5	FH-4	Coal Handling at Crusher 1 Hopper (with dust suppression)	Normal - Steady State	E13		PT28								
OS6	FH-6	Coal Handling at Shaker Unloading Hopper	Normal - Steady State	E15		PT26								
OS7		Coal Handling at Crusher 2 Hopper (with dust suppression)	Normal - Steady State	E16		PT27								
<del>82C</del>			Normal - Steady State	<del>E17</del>		PT30								
<del>989</del>		Tire-Derived Fuel Handling on TDF Conveyor and Separator System	Normal - Steady - State	E18		PT30								
OS10			Normal - Steady State	E14		PT29								
DS11	FH-15	Coal/Tire-Derived Fuel	Normal - Steady I State	E19		PT29								



Date: 12/16/10

## New Jersey Department of Environmental Protection Emission Unit/Batch Process Inventory

U 7 Fuel Hand. Coal and Tire-Derived Fuel Handling

UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)		VOC	Flow (acfm)	Temp. (deg F)
OS12	FH-16	Coal Handling on Tripper Conveyor #3 to Unit 2 Coal Bunker				PT29		Min. Max.	Range Mi	n. Max.	Min. Ma

#### U8 C. Tower Unit 3 Cooling Tower

Hoc													
UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours	VOC	Flow (acfm)		Temp. (deg F)	
OS1	C. Tower	Cooling Tower	Normal - Steady	E21		PT21		Min. Max.	Range	Min.	Max.	Min.	Max.
			State			1121							

## U-9 Limestone Handling

						<del> </del>				<del></del>					
UOS NJID	Facility's Designation	UOS Description	Operation Type	Signif. Equip.	Control Device(s)	Emission Point(s)	SCC(s)	Annual Oper. Hours VOC			(	Flow (acfm)		Temp. (deg F)	
OS1	LS-I	Limestone Handling from	Normal - Steady	F22				Min.	Max.	Range	Min.	Max.	Min.	Max.	
		Truck	State	LLL	CD11 (P)	PT12	3-05-104-05								

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