


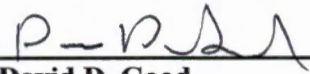


**AIR QUALITY PROGRAM**  
**301 39th Street, Bldg. #7**  
**Pittsburgh, PA 15201-1811**

**Title V Operating Permit**  
**& Federally Enforceable State Operating Permit**

<b><u>Issued To:</u></b>	<b>Brunot Island Power LLC</b>	<b><u>ACHD Permit #:</u></b>	<b>0056</b>
<b><u>Facility:</u></b>	<b>Brunot Island Generating Station Brunot Island Pittsburgh, PA</b>	<b><u>Date of Issuance:</u></b>	<b>August 26, 2019</b>
		<b><u>Expiration Date:</u></b>	<b>August 25, 2024</b>
		<b><u>Renewal Date:</u></b>	<b>February 25, 2024</b>

**Issued By:**   
**JoAnn Truchan, P.E.**  
**Section Chief, Engineering**

**Prepared By:**   
**David D. Good**  
**Air Quality Engineer**

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### AMENDMENTS:

<i>DATE</i>	<i>SECTION(S)</i>
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**I. CONTACT INFORMATION**

**Facility Location:** **Brunot Island Generating Station**  
Brunot Island  
Pittsburgh, PA

**Permittee/Owner:** **Brunot Island Power LLC**  
P.O. Box 99907  
Pittsburgh, PA 1533-0907

**Responsible Official:** **Kevin P. Panzino**  
Title: Plant Manager  
Company: **GenOn Power Midwest LP**  
Address: Cheswick Generating Station  
P.O. Box 65  
Cheswick, PA 15024  
Telephone Number: 724-275-1401  
E-Mail Address: [Kevin.Panzino@genon.com](mailto:Kevin.Panzino@genon.com)

**Alternate Responsible Official:** **Mark Gouveia**  
Title: Senior Vice President, Plant Operations  
Company: GenOn Energy, Inc.  
Address: Cheswick Generating Station  
P.O. Box 65  
Cheswick, PA 15024  
Telephone Number: 301-843-4555

**Facility Contact:** **William McGraw**  
Title: Environmental and Safety Manager  
Telephone Number: 724-275-1595  
Mobile Number: 724-333-2310  
E-mail Address: [William.McGraw@genon.com](mailto:William.McGraw@genon.com)

**AGENCY ADDRESSES:**

**ACHD Engineer:** **David D. Good**  
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**ACHD Contact:** **Chief Engineer**  
**Allegheny County Health Department**  
Air Quality Program  
301 39th Street, Building #7  
Pittsburgh, PA 15201-1891

**EPA Contact:** **Enforcement Programs Section (3AP12)**  
**USEPA Region III**  
1650 Arch Street  
Philadelphia, PA 19103-2029

## II. FACILITY DESCRIPTION

The Brunot Island Power LLC, Brunot Island Generating Station is a commercial electrical power generation facility. The source is composed of one 22 MW base rating no.2 fuel oil-fired simple cycle combustion turbine and three 63 MW base rating natural gas fired combined cycle combustion turbines. Each combined cycle turbine is equipped with a heat recovery steam generator (HRSG) that is supplied with duct burners rated at 240 MMBtu. The simple cycle combustion turbine has no emission controls and the combined cycle units are equipped with selective catalytic reduction (SCR) and water injection for NO<sub>x</sub> control. Additional emission units consist of one 84,000 gallon per minute cooling tower, two 765,810 gallon above ground storage tanks (ASTs) for no. 2 fuel oil, and one 20,500 gallon aqueous ammonia AST.

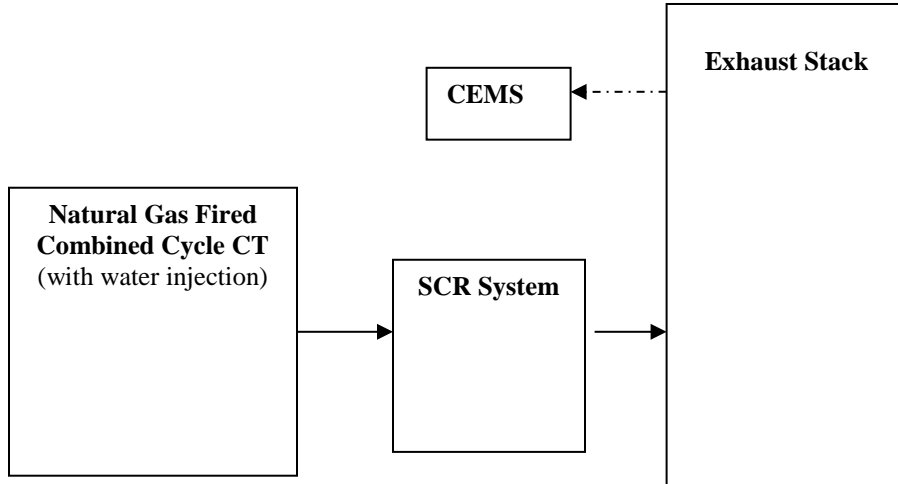
The facility is a major source of particulate matter (PM), particulate matter < 10 microns in diameter (PM<sub>10</sub>), particulate matter < 2.5 microns in diameter (PM<sub>2.5</sub>), nitrogen oxides (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), and volatile organic compounds (VOCs) and an area source of hazardous air pollutants (HAPs) as defined in section 2101.20 of Article XXI.

The emission units regulated by this permit are summarized in Table II-1:

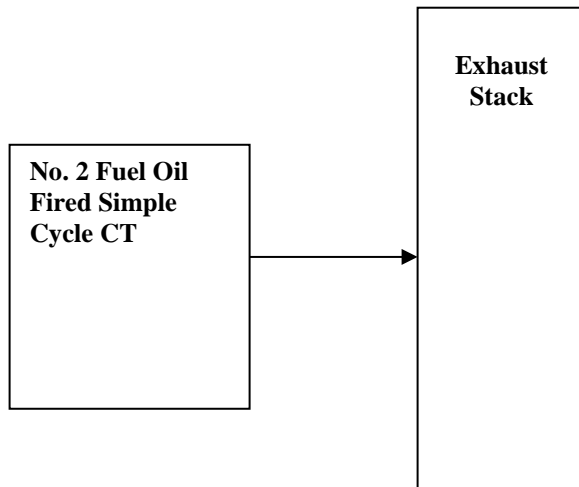
**TABLE II-1 - Emission Unit Identification**

I.D.	SOURCE DESCRIPTION	CONTROL DEVICE(S)	MAXIMUM CAPACITY	FUEL/RAW MATERIAL	STACK I.D.
1A	Combustion Turbine in Simple Cycle Mode	None	22 MW base - 300 x 10 <sup>6</sup> btu/hr	No.2 Fuel Oil	S-007
2A	Combustion Turbine and HRSG in Combined Cycle Mode	Water injection with SCR	63 MW base - 918 x 10 <sup>6</sup> btu/hr	Natural Gas	S-001/2
2B	Combustion Turbine and HRSG in Combined Cycle Mode	Water injection with SCR	63 MW base - 918 x 10 <sup>6</sup> btu/hr	Natural Gas	S-003/4
3	Combustion Turbine and HRSG in Combined Cycle Mode	Water injection with SCR	63 MW base - 918 x 10 <sup>6</sup> btu/hr	Natural Gas	S-005/6
CT1	Multi-cell Cooling tower	Mist eliminators	84,000 gpm	NA	CT-1
T001A	Aqueous Ammonia AST	Vapor balancing and bottom loading	20,500 gallons	NA	NA
T001 & T002	No.2 Fuel Oil ASTs	Conservation Vents	765,810 gallons (each)	No. 2 Fuel Oil	NA
1A-DS	Diesel Starter Engine	None	3.4 MMBtu/hr	No. 2 Fuel Oil	NA
FP1	Diesel Fire Pump	None	2.1 MMBtu/hr	No. 2 Fuel Oil	NA

**Block schematic of Units No. 2A, 2B, or 3**  
*(independent identical systems)*



**Block schematic of Unit No. 1A**



**DECLARATION OF POLICY**

*Pollution prevention is recognized as the preferred strategy (over pollution control) for reducing risk to air resources. Accordingly, pollution prevention measures should be integrated into air pollution control programs wherever possible, and the adoption by sources of cost-effective compliance strategies, incorporating pollution prevention, is encouraged. The Department will give expedited consideration to any permit modification request based on pollution prevention principles.*

**The permittee is subject to the terms and conditions set forth below. These terms and conditions constitute provisions of Allegheny County Health Department Rules and Regulations, Article XXI Air Pollution Control. The subject equipment has been conditionally approved, for operation. The equipment shall be operated in conformity with the plans, specifications, conditions, and instructions which are part of your application, and may be periodically inspected for compliance by the Department. In the event that the terms and conditions of this permit or the applicable provisions of Article XXI conflict with the application for this permit, these terms and conditions and the applicable provisions of Article XXI shall prevail. Additionally, nothing in this permit relieves the permittee from the obligation to comply with all applicable Federal, State and Local laws and regulations.**

**III. GENERAL CONDITIONS - Major Source****1. Prohibition of Air Pollution (§2101.11.a)**

It shall be a violation of this permit to fail to comply with, or to cause or assist in the violation of, any requirement of this permit, or any order or permit issued pursuant to authority granted by Article XXI. The permittee shall not willfully, negligently, or through the failure to provide and operate necessary control equipment or to take necessary precautions, operate any source of air contaminants in such manner that emissions from such source:

- a. Exceed the amounts permitted by this permit or by any order or permit issued pursuant to Article XXI;
- b. Cause an exceedance of the ambient air quality standards established by Article XXI §2101.10; or
- c. May reasonably be anticipated to endanger the public health, safety, or welfare.

**2. Definitions (§2101.20)**

- a. Except as specifically provided in this permit, terms used retain the meaning accorded them under the applicable provisions and requirements of Article XXI. Whenever used in this permit, or in any action taken pursuant to this permit, the words and phrases shall have the meanings stated, unless the context clearly indicates otherwise.
- b. Unless specified otherwise in this permit or in the applicable regulation, the term “year” shall mean any twelve (12) consecutive months.
- c. “RACT Order No. 217” shall be defined as Plan Approval Order and Agreement No. 217 Upon Consent, dated March 8, 1996.

**3. Conditions (§2102.03.c)**

It shall be a violation of this permit giving rise to the remedies provided by Article XXI §2109.02, for any person to fail to comply with any terms or conditions set forth in this permit.

**4. Certification (§2102.01)**

Any report, or compliance certification submitted under this permit shall contain written certification by a responsible official as to truth, accuracy, and completeness. This certification and any other certification required under this permit shall be signed by a responsible official of the source, and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

**5. Transfers (§2102.03.e, §2103.14.b)**

This permit shall not be transferable from one person to another, except in accordance with Article XXI §2102.03.e and in cases of change-in-ownership which are documented to the satisfaction of the Department, and shall be valid only for the specific sources and equipment for which this permit was issued. The transfer of permits in the case of change-in-ownership may be made consistent with the administrative permit amendment procedure of Article XXI §2103.14.b. The required documentation and fee must be received by the Department at least 30 days before the intended transfer date.

**6. Term (§2103.12.e, §2103.13.a)**

- a. This permit shall remain valid for five (5) years from the date of issuance, or such other shorter period if required by the Clean Air Act, unless revoked. The terms and conditions of an expired permit shall automatically continue pending issuance of a new operating permit provided the permittee has submitted a timely and complete application and paid applicable fees required under Article XXI Part C, and the Department through no fault of the permittee is unable to issue or deny a new permit before the expiration of the previous permit.
- b. Expiration. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with the requirements of Article XXI Part C.

**7. Need to Halt or Reduce Activity Not a Defense (§2103.12.f.2)**

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

**8. Property Rights (§2103.12.f.4)**

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

**9. Duty to Provide Information (§2103.12.f.5, §2101.07.d.4, §2101.07.d.5)**

- a. The permittee shall furnish to the Department in writing within a reasonable time, any information that the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit.



- b. Upon request, the permittee shall also furnish to the Department copies of any records required to be kept by the permit.
- c. Upon cause shown by the permittee the records, reports, or information, or a particular portion thereof, claimed by the permittee to be confidential shall be submitted to the Department in accordance with the requirements of Article XXI, §2101.07.d.4. Information submitted to the Department under a claim of confidentiality, shall be available to the US EPA and the PADEP upon request and without restriction. Upon request of the permittee the confidential information may be submitted to the USEPA and PADEP directly. Emission data or any portions of any draft, proposed, or issued permits shall not be considered confidential.

**10. Modification of Section 112(b) Pollutants which are VOCs or PM-10 (§2103.12.f.7)**

Except where precluded under the Clean Air Act or federal regulations promulgated under the Clean Air Act, if this permit limits the emissions of VOCs or PM-10 but does not limit the emissions of any hazardous air pollutants, the mixture of hazardous air pollutants which are VOCs or PM-10 can be modified so long as no permit emission limitations are violated. A log of all mixtures and changes shall be kept and reported to the Department with the next report required after each change.

**11. Right to Access (§2103.12.h.2)**

Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized Department and other federal, state, county, and local government representatives to:

- a. Enter upon the permittee's premises where a permitted source is located or an emissions-related activity is conducted, or where records are or should be kept under the conditions of the permit;
- b. Have access to, copy and remove, at reasonable times, any records that must be kept under the conditions of the permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
- d. As authorized by either Article XXI or the Clean Air Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements.

**12. Certification of Compliance (§2103.12.h.5, §2103.22.i.1)**

- a. The permittee shall submit on an annual basis, certification of compliance with all terms and conditions contained in this permit, including emission limitations, standards, or work practices. The certification of compliance shall be made consistent with General Condition III.4 above and shall include the following information at a minimum:
  - 1) The identification of each term or condition of the permit that is the basis of the certification;
  - 2) The compliance status;
  - 3) Whether compliance was continuous or intermittent;
  - 4) The method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with the provisions of this permit; and
  - 5) Such other facts as the Department may require to determine the compliance status of the source.

- b. All certifications of compliance must be submitted to the Administrator as well as the Department by March 1 of each year for the time period beginning January 1 and ending December 31 of the previous year. The next report shall be due March 1, 2020 for the time period beginning on the issuance date of this permit through December 31, 2019. Compliance certifications may be emailed to the Administrator at [R3-APD-Permits@epa.gov](mailto:R3-APD-Permits@epa.gov) in lieu of mailing a hard copy.

### 13. Record Keeping Requirements (§2103.12.j.1)

- a. The permittee shall maintain records of required monitoring information that include the following:
- 1) The date, place as defined in the permit, and time of sampling or measurements;
  - 2) The date(s) analyses were performed;
  - 3) The company or entity that performed the analyses;
  - 4) The analytical techniques or methods used;
  - 5) The results of such analyses; and
  - 6) The operating parameters existing at the time of sampling or measurement.
- b. The permittee shall maintain and make available to the Department, upon request, records including computerized records that may be necessary to comply with the reporting and emission statements in Article XXI §2108.01.e. Such records may include records of production, fuel usage, maintenance of production or pollution control equipment or other information determined by the Department to be necessary for identification and quantification of potential and actual air contaminant emissions.

### 14. Retention of Records (§2103.12.j.2)

The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation or equivalent electronic data, and copies of all reports required by this permit.

### 15. Reporting Requirements (§2103.12.k.)

- a. The permittee shall submit reports of any required monitoring at least every six (6) months. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by the Responsible Official.
- b. Prompt reporting of deviations from permit requirements is required, including those attributable to upset conditions as defined in this permit and Article XXI §2108.01.c, the probable cause of such deviations, and any corrective actions or preventive measures taken.
- c. All reports submitted to the Department shall comply with the certification requirements of General Condition III.4 above.
- d. Semiannual reports required by this permit shall be submitted to the Department as follows:
- 1) One semiannual report is due by July 31 of each year for the time period beginning January 1 and ending June 30.
  - 2) One semiannual report is due by January 31 of each year for the time period beginning July 1 and ending December 31 of the previous year.

**16. Severability Requirement (§2103.12.l)**

The provisions of this permit are severable, and if any provision of this permit is determined by a court of competent jurisdiction to be invalid or unenforceable, such a determination will not affect the remaining provisions of this permit.

**17. Existing Source Reactivations (§2103.13.d)**

The permittee shall not reactivate any source that has been out of operation or production for a period of one year or more unless the permittee has submitted a reactivation plan request to, and received a written reactivation plan approval from, the Department. Existing source reactivations shall meet all requirements of Article XXI §2103.13.d.

**18. Administrative Permit Amendment Procedures (§2103.14.b, §2103.24.b)**

An administrative permit amendment may be made consistent with the procedures of Article XXI §2103.14.b and §2103.24.b. Administrative permit amendments are not authorized for any amendment precluded by the Clean Air Act or the regulations thereunder.

**19. Revisions and Minor Permit Modification Procedures (§2103.14.c, §2103.24.a)**

Sources may apply for revisions and minor permit modifications on an expedited basis in accordance with Article XXI §2103.14.c and §2103.24.a.

**20. Significant Permit Modifications (§2103.14.d)**

Significant permit modifications shall meet all requirements of the applicable subparts of Article XXI, Part C, including those for applications, fees, public participation, review by affected States, and review by EPA, as they apply to permit issuance and permit renewal. The approval of a significant permit modification, if the entire permit has been reopened for review, shall commence a new full five (5) year permit term. The Department shall take final action on all such permits within nine (9) months following receipt of a complete application.

**21. Duty to Comply (§2103.12.f.1, §2103.22.g)**

The permittee shall comply with all permit conditions and all other applicable requirements at all times. Any permit noncompliance constitutes a violation of the Clean Air Act, the Air Pollution Control Act, and Article XXI and is grounds for any and all enforcement action, including, but not limited to, permit termination, revocation and reissuance, or modification, and denial of a permit renewal application.

**22. Renewals (§2103.13.b., §2103.23.a)**

Renewal of this permit is subject to the same fees and procedural requirements, including those for public participation and affected State and EPA review, that apply to initial permit issuance. The application for renewal shall be submitted at least six (6) months but not more than eighteen (18) months prior to expiration of this permit. The application shall also include submission of a supplemental compliance review as required by Article XXI §2102.01.

**23. Reopenings for Cause (§2103.15, §2103.25.a, §2103.12.f.3)**

- a. This permit shall be reopened and reissued under any of the following circumstances:
- 1) Additional requirements under the Clean Air Act become applicable to a major source with a remaining permit term of three (3) or more years. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended solely due to the failure of the Department to act on a permit renewal application in a timely fashion.
  - 2) Additional requirements, including excess emissions requirements, become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into this permit.
  - 3) The Department or EPA determines that this permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit.
  - 4) The Administrator or the Department determines that this permit must be reissued or revoked to assure compliance with the applicable requirements.
- b. This permit may be modified; revoked, reopened, and reissued; or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes, for changes that are provided for in this permit.

**24. Reopenings for Cause by the EPA (§2103.25.b)**

This permit may be modified, reopened and reissued, revoked or terminated for cause by the EPA in accordance with procedures specified in Article XXI §2103.25.b.

**25. Annual Operating Permit Administration Fee (§2103.40)**

In each year during the term of this permit, on or before the last day of the month in which the application for this permit was submitted, the permittee shall submit to the Department, in addition to any other applicable administration fees, an Annual Operating Permit Administration Fee in accordance with §2103.40 by check or money order payable to the "Allegheny County Air Pollution Control Fund" in the amount specified in the fee schedule applicable at that time.

**26. Annual Major Source Emissions Fees Requirements (§2103.41)**

No later than September 1 of each year, the permittee shall pay an annual emission fee in accordance with Article XXI §2103.41 for each ton of a regulated pollutant (except for carbon monoxide) actually emitted from the source. The permittee shall not be required to pay an emission fee for emissions of more than 4,000 tons of each regulated pollutant. The emission fee shall be increased in each year after 1995 by the percentage, if any, by which the Consumer Price Index for the most recent calendar year exceeds the Consumer Price Index for the previous calendar year.

**27. Other Requirements not Affected (§2104.08, §2105.02, §2105.05)**

Compliance with the requirements of this permit shall not in any manner relieve any person from the duty to fully comply with any other applicable Federal, State, or County statute, rule, regulation, or the like, including but not limited to the odor emission standards under Article XXI §2104.04, any applicable NSPSs, NESHAPs, MACTs, or Generally Achievable Control Technology (GACT) standards now or hereafter established by the EPA, and any applicable requirements of BACT or LAER as provided by Article XXI, any condition contained in any applicable Installation or Operating Permit and/or any additional or more stringent requirements contained in an order issued to such person pursuant to Article XXI Part I.

**28. Termination of Operation (§2108.01.a)**

In the event that operation of any source of air contaminants is permanently terminated, the person responsible for such source shall so report, in writing, to the Department within 60 days of such termination.

**29. Emissions Inventory Statements (§2108.01.e & g)**

- a. Emissions inventory statements in accordance with Article XXI §2108.01.e shall be submitted to the Department by March 15 of each year for the preceding calendar year. The Department may require more frequent submittals if the Department determines that more frequent submissions are required by the EPA or that analysis of the data on a more frequent basis is necessary to implement the requirements of Article XXI or the Clean Air Act.
- b. The failure to submit any report or update within the time specified, the knowing submission of false information, or the willful failure to submit a complete report shall be a violation of this permit giving rise to the remedies provided by Article XXI §2109.02.

**30. Tests by the Department (§2108.02.d)**

Notwithstanding any tests conducted pursuant to Article XXI §2108.02, the Department or another entity designated by the Department may conduct emissions testing on any source or air pollution control equipment. At the request of the Department, the person responsible for such source or equipment shall provide adequate sampling ports, safe sampling platforms and adequate utilities for the performance of such tests.

**31. Other Rights and Remedies Preserved (§2109.02.b)**

Nothing in this permit shall be construed as impairing any right or remedy now existing or hereafter created in equity, common law or statutory law with respect to air pollution, nor shall any court be deprived of such jurisdiction for the reason that such air pollution constitutes a violation of this permit.

**32. Enforcement and Emergency Orders (§2109.03, §2109.05)**

- a. The person responsible for this source shall be subject to any and all enforcement and emergency orders issued to it by the Department in accordance with Article XXI §2109.03, §2109.04 and §2109.05.
- b. Upon request, any person aggrieved by an Enforcement Order or Emergency Order shall be granted a hearing as provided by Article XXI §2109.03.d; provided however, that an Emergency Order

shall continue in full force and effect notwithstanding the pendency of any such appeal.

- c. Failure to comply with an Enforcement Order or immediately comply with an Emergency Order shall be a violation of this permit thus giving rise to the remedies provided by Article XXI §2109.02.

**33. Penalties, Fines, and Interest (§2109.07.a)**

A source that fails to pay any fee required under this permit when due shall pay a civil penalty of 50% of the fee amount, plus interest on the fee amount computed in accordance with Article XXI §2109.06.a.4 from the date the fee was required to be paid. In addition, the source may have this permit revoked for failure to pay any fee required.

**34. Appeals (§2109.10)**

In accordance with State Law and County regulations and ordinances, any person aggrieved by an order or other final action of the Department issued pursuant to Article XXI or any unsuccessful petitioner to the Administrator under Article XXI Part C, Subpart 2, shall have the right to appeal the action to the Director in accordance with the applicable County regulations and ordinances.

**35. Risk Management (§2104.08, 40 CFR Part 68)**

Should this stationary source, as defined in 40 CFR Part 68.3, become subject to Part 68, then the owner or operator shall submit a risk management plan (RMP) by the date specified in Part 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by General Condition III.12 above.

**36. Operational Flexibility (§2103.14.a)**

- a. The owner or operator shall not make any changes at this source, including trades of increases and decreases in emissions within the permitted source, without first obtaining a permit revision for such changes, unless:
- 1) The changes do not require an Installation Permit under §2102.04 of this Article or violate the terms of an Operating Permit or an Installation Permit;
  - 2) The permit specifically allows for changes that do not cause specific emissions increases greater than a de minimis emission increase, and the changes do not exceed such emissions increase allowed under the permit, in accordance with General Condition III.37 below;
  - 3) The changes do not violate major source applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements; and
  - 4) By no later than seven (7) days prior to the date on which the implementation of the proposed change is commenced, a written notification is submitted to the Department, for attachment to the Department's copy of the relevant permit, which includes:
    - a) A brief description of the change within the permitted source;
    - b) The date on which the change will occur;
    - c) The pollutants emitted; and
    - d) Any change in emissions.

**37. De Minimis Emission Increases (§2103.14.e)**

- a. The Department may allow, as a condition of an Operating Permit, de minimis emission increases from a new or existing source up to the amounts authorized in condition III.37.d below.
- b. A de minimis increase may not occur at a source if it either:
  - 1) Increases the emissions of a pollutant regulated under Section 112 of the Clean Air Act (42 U.S.C.A. §7412) except as authorized in conditions III.37.d.4) and 5) below;
  - 2) Subjects the source to the permit requirements of Article XXI, §§2102.05, 2102.06, or 2102.07 (relating to prevention of significant deterioration of air quality and major new source and major modification review); or
  - 3) Violates an applicable requirement of this Article, the state Air Pollution Control Act, the Clean Air Act, or the regulations promulgated under the Air Pollution Control Act or the Clean Air Act.
- c. The permittee shall provide the Department with 7 days prior written notice of any de minimis emission increase. The notice shall identify and describe the pollutants that will be emitted as a result of the de minimis emissions increase and provide emission rates in tons/year and in terms necessary to establish compliance consistent with any applicable requirement. The Department may disapprove or condition the de minimis emission increase at any time.
- d. Except as provided in condition III.37.e below, the maximum de minimis emission rate increases, as measured in tons/year, that may be authorized in the permit during the term of the permit are:
  - 1) Four tons of carbon monoxide from an emissions unit during the term of the permit and 20 tons of carbon monoxide at the source during the term of the permit;
  - 2) One ton of NOX from an emissions unit during the term of the permit and 5 tons of NOX at the source during the term of the permit;
  - 3) One and six-tenths tons of oxides of sulfur from an emissions unit during the term of the permit and 8.0 tons of oxides of sulfur at the source during the term of the permit;
  - 4) Six-tenths of a ton of PM10 from an emissions unit during the term of the permit and 3.0 tons of PM10 at the source during the term of the permit. This shall include emissions of a pollutant regulated under Section 112 of the Clean Air Act unless precluded by the Clean Air Act, the regulations thereunder, or Article XXI; and
  - 5) One ton of VOC's from an emissions unit during the term of the permit and 5 tons of VOC's at the source during the term of the permit. This shall include emissions of a pollutant regulated under Section 112 of the Clean Air Act unless precluded by the Clean Air Act, the regulations thereunder, or Article XXI.
- e. The Department may allow, as a condition of an operating permit, installation of the minor sources exempted under §2102.04.a.5 of Article XXI.
- f. De minimis emission threshold levels cannot be met by offsetting emission increases with emission decreases at the same emissions unit.

**38. Permit Shield (§2103.22, §2103.14.b.4)**

- a. The permittee's compliance with the conditions of this permit shall be deemed compliance with all major source applicable requirements as of the date of permit issuance, provided that:
  - 1) Such major source applicable requirements are included and are specifically identified in the

- permit; or
- 2) The Department, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.
- b. Nothing in Article XXI §2103.22.e or the Title V Permit shall alter or affect the following:
- 1) The provisions of Section 303 of the Clean Air Act and the provisions of Article XXI regarding emergency orders, including the authority of the Administrator and the Department under such provisions;
  - 2) The liability of any person who owns, operates, or allows to be operated, a source in violation of any major source applicable requirements prior to or at the time of permit issuance;
  - 3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; or
  - 4) The ability of the EPA or the County to obtain information from the permittee pursuant to Section 114 of the Clean Air Act, the provisions of Article XXI and State law.
- c. Unless precluded by the Clean Air Act or regulations therein, final action by the Department on administrative amendments, minor and significant permit modifications, and operational flexibility changes shall be covered by the permit shield provided such amendments, modifications and changes meet the relevant requirements of Article XXI.
- d. The permit shield authorized under Article XXI §2103.22 is in effect for the permit terms and conditions as identified in this permit.

**39. Circumvention (§2101.14)**

For purposes of determining compliance with the provisions of this permit and Article XXI, no credit shall be given to any person for any device or technique, including but not limited to the operation of any source with unnecessary amounts of air, the combining of separate sources except as specifically permitted by Article XXI and the Department, the use of stacks exceeding Good Engineering Practice height as defined by regulations promulgated by the US EPA at 40 CFR §§51.100 and 51.110 and Subpart I, and other dispersion techniques, which without reducing the amount of air contaminants emitted, conceals or dilutes an emission of air contaminants which would otherwise violate the provisions of this Article; except that, for purposes of determining compliance with Article §2104.04 concerning odors, credit for such devices or techniques, except for the use of a masking agent, may be given.

**40. Duty to Supplement and Correct Relevant Facts (§2103.11.d.2)**

- a. The permittee shall provide additional information as necessary to address requirements that become applicable to the source after the date it files a complete application but prior to the Department taking action on the permit application.
- b. The permittee shall provide supplementary fact or corrected information upon becoming aware that incorrect information has been submitted or relevant facts were not submitted.
- c. Except as otherwise required by this permit and Article XXI, the Clean Air Act, or the regulations thereunder, the permittee shall submit additional information as necessary to address changes occurring at the source after the date it files a complete application but prior to the Department taking action on the permit application.



- d. The applicant shall submit information requested by the Department which is reasonably necessary to evaluate the permit application.

**41. Effect (§2102.03.g.)**

Except as specifically otherwise provided under Article XXI, Part C, issuance of a permit pursuant to Article XXI Part B or Part C shall not in any manner relieve any person of the duty to fully comply with the requirements of this permit, Article XXI or any other provision of law, nor shall it in any manner preclude or affect the right of the Department to initiate any enforcement action whatsoever for violations of this permit or Article XXI, whether occurring before or after the issuance of such permit. Further, except as specifically otherwise provided under Article XXI Part C the issuance of a permit shall not be a defense to any nuisance action, nor shall such permit be construed as a certificate of compliance with the requirements of this permit or Article XXI.

**42. Installation Permits (§2102.04.a.1.)**

It shall be a violation of Article XXI giving rise to the remedies set forth in Article XXI Part I for any person to install, modify, replace, reconstruct, or reactivate any source or air pollution control equipment which would require an installation permit or permit modification in accordance with Article XXI Part B or Part C applies unless:

1. The Department has first issued an Installation Permit for such source or equipment; or
2. Such action is solely a reactivation of a source with a current Operating Permit which is approved under §2103.13 of this Article; or
3. Such source is exempt under Article XXI §2102.04.a.5.

***“PERMIT SHIELD” IN EFFECT.***

**IV. SITE LEVEL TERMS AND CONDITIONS****1. Reporting of Upset Conditions (§2103.12.k.2)**

The permittee shall promptly report all deviations from permit requirements, including those attributable to upset conditions as defined in Article XXI §2108.01.c, the probable cause of such deviations, and any corrective actions or preventive measures taken.

**2. Visible Emissions (§2104.01.a)**

Except as provided for by Article XXI §2108.01.d pertaining to a cold start, no person shall operate, or allow to be operated, any source in such manner that the opacity of visible emissions from a flue or process fugitive emissions from such source, excluding uncombined water:

- a. Equal or exceed an opacity of 20% for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period; or,
- b. Equal or exceed an opacity of 60% at any time.

**3. Odor Emissions (§2104.04) (County-only enforceable)**

No person shall operate, or allow to be operated, any source in such manner that emissions of malodorous matter from such source are perceptible beyond the property line.

**4. Materials Handling (§2104.05)**

The permittee shall not conduct, or allow to be conducted, any materials handling operation in such manner that emissions from such operation are visible at or beyond the property line.

**5. Operation and Maintenance (§2105.03)**

All air pollution control equipment required by this permit or any order under Article XXI, and all equivalent compliance techniques approved by the Department, shall be properly installed, maintained, and operated consistently with good air pollution control practice.

**6. Open Burning (§2105.50)**

No person shall conduct, or allow to be conducted, the open burning of any material, except where the Department has issued an Open Burning Permit to such person in accordance with Article XXI §2105.50 or where the open burning is conducted solely for the purpose of non-commercial preparation of food for human consumption, recreation, light, ornament, or provision of warmth for outside workers, and in a manner which contributes a negligible amount of air contaminants.

**7. Shutdown of Control Equipment (§2108.01.b)**

- a. In the event any air pollution control equipment is shut down for reasons other than a breakdown, the person responsible for such equipment shall report, in writing, to the Department the intent to shut down such equipment at least 24 hours prior to the planned shutdown. Notwithstanding the submission of such report, the equipment shall not be shut down until the approval of the Department is obtained; provided, however, that no such report shall be required if the source(s) served by such air pollution control equipment is also shut down at all times that such equipment is shut down.
- b. The Department shall act on all requested shutdowns as promptly as possible. If the Department does not take action on such requests within ten (10) calendar days of receipt of the notice, the request shall be deemed denied, and upon request, the owner or operator of the affected source shall have a right to appeal in accordance with the provisions of Article XI.
- c. The prior report required by Site Level Condition IV.7.a above shall include:
  - 1) Identification of the specific equipment to be shut down, its location and permit number (if permitted), together with an identification of the source(s) affected;
  - 2) The reasons for the shutdown;
  - 3) The expected length of time that the equipment will be out of service;
  - 4) Identification of the nature and quantity of emissions likely to occur during the shutdown;
  - 5) Measures, including extra labor and equipment, which will be taken to minimize the length of the shutdown, the amount of air contaminants emitted, or the ambient effects of the emissions;
  - 6) Measures which will be taken to shut down or curtail the affected source(s) or the reasons why it is impossible or impracticable to shut down or curtail the affected source(s) during the shutdown; and
  - 7) Such other information as may be required by the Department.

**8. Breakdowns (§2108.01.c)**

- a. In the event that any air pollution control equipment, process equipment, or other source of air contaminants breaks down in such manner as to have a substantial likelihood of causing the emission of air contaminants in violation of this permit, or of causing the emission into the open air of potentially toxic or hazardous materials, the person responsible for such equipment or source shall immediately, but in no event later than sixty (60) minutes after the commencement of the breakdown, notify the Department of such breakdown and shall, as expeditiously as possible but in no event later than seven (7) days after the original notification, provide written notice to the Department.
- b. To the maximum extent possible, all oral and written notices required shall include all pertinent facts, including:
  - 1) Identification of the specific equipment which has broken down, its location and permit number (if permitted), together with an identification of all related devices, equipment, and other sources which will be affected.
  - 2) The nature and probable cause of the breakdown.
  - 3) The expected length of time that the equipment will be inoperable or that the emissions will continue.
  - 4) Identification of the specific material(s) which are being, or are likely to be emitted, together

- with a statement concerning its toxic qualities, including its qualities as an irritant, and its potential for causing illness, disability, or mortality.
- 5) The estimated quantity of each material being or likely to be emitted.
  - 6) Measures, including extra labor and equipment, taken or to be taken to minimize the length of the breakdown, the amount of air contaminants emitted, or the ambient effects of the emissions, together with an implementation schedule.
  - 7) Measures being taken to shut down or curtail the affected source(s) or the reasons why it is impossible or impractical to shut down the source(s), or any part thereof, during the breakdown.
- c. Notices required shall be updated, in writing, as needed to advise the Department of changes in the information contained therein. In addition, any changes concerning potentially toxic or hazardous emissions shall be reported immediately. All additional information requested by the Department shall be submitted as expeditiously as practicable.
  - d. Unless otherwise directed by the Department, the Department shall be notified whenever the condition causing the breakdown is corrected or the equipment or other source is placed back in operation by no later than 9:00 AM on the next County business day. Within seven (7) days thereafter, written notice shall be submitted pursuant to Paragraphs a and b above.
  - e. Breakdown reporting shall not apply to breakdowns of air pollution control equipment which occur during the initial startup of said equipment, provided that emissions resulting from the breakdown are of the same nature and quantity as the emissions occurring prior to startup of the air pollution control equipment.
  - f. In no case shall the reporting of a breakdown prevent prosecution for any violation of this permit or Article XXI.

#### **9. Cold Start (§2108.01.d)**

In the event of a cold start on any fuel-burning or combustion equipment, except stationary internal combustion engines and combustion turbines used by utilities to meet peak load demands, the person responsible for such equipment shall report in writing to the Department the intent to perform such cold start at least 24 hours prior to the planned cold start. Such report shall identify the equipment and fuel(s) involved and shall include the expected time and duration of the startup. Upon written application from the person responsible for fuel-burning or combustion equipment which is routinely used to meet peak load demands and which is shown by experience not to be excessively emissive during a cold start, the Department may waive these requirements and may instead require periodic reports listing all cold starts which occurred during the report period. The Department shall make such waiver in writing, specifying such terms and conditions as are appropriate to achieve the purposes of Article XXI. Such waiver may be terminated by the Department at any time by written notice to the applicant.

#### **10. Emissions Inventory Statements (§2108.01.e)**

- a. Emissions inventory statements in accordance with §2108.01.e shall be submitted to the Department by March 15 of each year for the preceding calendar year. The Department may require more frequent submittals if the Department determines that more frequent submissions are required by the EPA or that analysis of the data on a more frequent basis is necessary to implement the requirements of Article XXI or the Clean Air Act.
- b. The failure to submit any report or update within the time specified, the knowing submission of

false information, or the willful failure to submit a complete report shall be a violation of this permit giving rise to the remedies provided by Article XXI §2109.02.

#### 11. Orders (§2108.01.f)

In addition to meeting the requirements of General Condition III.28 and Site Level Conditions IV.7 through IV.10 above, inclusive, the person responsible for any source shall, upon order by the Department, report to the Department such information as the Department may require in order to assess the actual and potential contribution of the source to air quality. The order shall specify a reasonable time in which to make such a report.

#### 12. Violations (§2108.01.g)

The failure to submit any report or update thereof required by General Condition III.28 and Site Level Conditions IV.7 through IV.11 above, inclusive, within the time specified, the knowing submission of false information, or the willful failure to submit a complete report shall be a violation of this permit giving rise to the remedies provided by Article XXI §2109.02.

#### 13. Emissions Testing (§2108.02)

- a. On or before December 31, 1981, and at two-year intervals thereafter, any person who operates, or allows to be operated, any piece of equipment or process which has an allowable emission rate, of 100 or more tons per year of particulate matter, sulfur oxides or volatile organic compounds shall conduct, or cause to be conducted, for such equipment or process such emissions tests as are necessary to demonstrate compliance with the applicable emission limitation(s) of this permit and shall submit the results of such tests to the Department in writing. Emissions testing conducted pursuant to this section shall comply with all applicable requirements of Article XXI §2108.02.e.
- b. **Orders.** In addition to meeting the requirements of Site Level Condition IV.13.a above, the person responsible for any source shall, upon order by the Department, conduct, or cause to be conducted, such emissions tests as specified by the Department within such reasonable time as is specified by the Department. Test results shall be submitted in writing to the Department within 90 days after completion of the tests, unless a different period is specified in the Department's order. Emissions testing shall comply with all applicable requirements of Article XXI §2108.02.e.
- c. **Tests by the Department.** Notwithstanding any tests conducted pursuant to Site Level Conditions IV.13.a and IV.13.b above, the Department or another entity designated by the Department may conduct emissions testing on any source or air pollution control equipment. At the request of the Department, the person responsible for such source or equipment shall provide adequate sampling ports, safe sampling platforms and adequate utilities for the performance of such tests.
- d. **Testing Requirements.** No later than 45 days prior to conducting any tests required by this permit, the person responsible for the affected source shall submit for the Department's approval a written test protocol explaining the intended testing plan, including any deviations from standard testing procedures, the proposed operating conditions of the source during the test, calibration data for specific test equipment and a demonstration that the tests will be conducted under the direct supervision of persons qualified by training and experience satisfactory to the Department to conduct such tests. In addition, at least 30 days prior to conducting such tests, the person responsible shall notify the Department in writing of the time(s) and date(s) on which the tests will be conducted and shall allow Department personnel to observe such tests, record data, provide pre-weighed

filters, analyze samples in a County laboratory and to take samples for independent analysis. Test results shall be comprehensively and accurately reported in the units of measurement specified by the applicable emission limitations of this permit.

- e. Test methods and procedures shall conform to the applicable reference method set forth in this permit or Article XXI Part G, or where those methods are not applicable, to an alternative sampling and testing procedure approved by the Department consistent with Article XXI §2108.02.e.2.
- f. **Violations.** The failure to perform tests as required by this permit or an order of the Department, the failure to submit test results within the time specified, the knowing submission of false information, the willful failure to submit complete results, or the refusal to allow the Department, upon presentation of a search warrant, to conduct tests, shall be a violation of this permit giving rise to the remedies provided by Article XXI §2109.02.

#### 14. Abrasive Blasting (§2105.51)

- a. Except where such blasting is a part of a process requiring an operating permit, no person shall conduct or allow to be conducted, abrasive blasting or power tool cleaning of any surface, structure, or part thereof, which has a total area greater than 1,000 square feet unless such abrasive blasting complies with all applicable requirements of Article XXI §2105.51.
- b. In addition to complying with all applicable provisions of §2105.51, no person shall conduct, or allow to be conducted, abrasive blasting of any surface unless such abrasive blasting also complies with all other applicable requirements of Article XXI unless such requirements are specifically addressed by §2105.51.

#### 15. Asbestos Abatement (§2105.62, §2105.63)

In the event of removal, encasement, or encapsulation of Asbestos-Containing Material (ACM) at a facility or in the event of the demolition of any facility, the permittee shall comply with all applicable provisions of Article XXI §2105.62 and §2105.63.

#### 16. Protection of Stratospheric Ozone (40 CFR Part 82)

- a. Permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
  - 1) All containers in which a Class I or Class II substance is stored or transported, all products containing a Class I substance, and all products directly manufactured with a process that uses a Class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106;
  - 2) The placement of the required warning statement must comply with the requirements pursuant to §82.108;
  - 3) The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110; and
  - 4) No person may modify, remove or interfere with the required warning statement except as described in §82.112.
- b. Permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F:

- 1) Persons opening appliances for maintenance, service, repair or disposal must comply with the prohibitions and required practices pursuant to §82.154 and §82.156;
  - 2) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158;
  - 3) Persons maintaining, servicing, repairing or disposing of appliances, must be certified by an approved technician certification program pursuant to §82.161;
  - 4) Persons maintaining, servicing, repairing or disposing of appliances must certify to the Administrator of the U.S. Environmental Protection Agency pursuant to §82.162;
  - 5) Persons disposing of small appliances, motor vehicle air conditioners (MVAC) and MVAC-like appliances, must comply with the record keeping requirements pursuant to §82.166;
  - 6) Owners of commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156; and
  - 7) Owners or operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.
- c. If the permittee manufactures, transforms, destroys, imports or exports a Class I or Class II substance, the Permittee is subject to all the requirements as specified in 40 CFR Part 82, Subpart A (Production and Consumption Controls).
- d. If the permittee performs a service on a motor vehicle that involves an ozone-depleting substance, refrigerant or regulated substitute substance in the MVAC, the Permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B (Servicing of Motor Vehicle Air Conditioners).
- e. The permittee may switch from any ozone-depleting substance to any alternative that is listed as acceptable in the Significant New Alternatives Policy (SNAP) program promulgated pursuant to 40 CFR Part 82, Subpart G.

#### 17. Volatile Organic Compound Storage Tanks (§2105.12.a)

No person shall place or store, or allow to be placed or stored, a volatile organic compound having a vapor pressure of 1.5 psia or greater under actual storage conditions in any aboveground stationary storage tank having a capacity equal to or greater than 2,000 gallons but less than or equal to 40,000 gallons, unless there is in operation on such tank pressure relief valves which are set to release at the higher of 0.7 psig of pressure or 0.3 psig of vacuum or at the highest possible pressure and vacuum in accordance with State or local fire codes, National Fire Prevention Association guidelines, or other national consensus standard approved in writing by the Department. Petroleum liquid storage vessels that are used to store produced crude oil and condensate prior to lease custody transfer are exempt from these requirements.

#### 18. Permit Source Premises (§2105.40)

- a. **General.** No person shall operate, or allow to be operated, any source for which a permit is required by Article XXI Part C in such manner that emissions from any open land, roadway, haul road, yard, or other premises located upon the source or from any material being transported within such source or from any source-owned access road, haul road, or parking lot over five (5) parking spaces:
- 1) Are visible at or beyond the property line of such source;
  - 2) Have an opacity of 20% or more for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period; or

3) Have an opacity of 60% or more at any time.

- b. **Deposition on Other Premises.** Visible emissions from any solid or liquid material that has been deposited by any means from a source onto any other premises shall be considered emissions from such source within the meaning of Site Level Condition IV.18.a above.

#### 19. Parking Lots and Roadways (§2105.42)

- a. The permittee shall not maintain for use, or allow to be used, any parking lot over 50 parking spaces or used by more than 50 vehicles in any day or any other roadway carrying more than 100 vehicles in any day or 15 vehicles in any hour in such manner that emissions from such parking lot or roadway:
- 1) Are visible at or beyond the property line;
  - 2) Have an opacity of 20% or more for a period or periods aggregating more than three (3) minutes in any 60 minute period; or
  - 3) Have an opacity of 60% or more at any time.
- b. Visible emissions from any solid or liquid material that has been deposited by any means from a parking lot or roadway onto any other premises shall be considered emissions from such parking lot or roadway.
- c. Site Level Condition IV.19.a above shall apply during any repairs or maintenance done to such parking lot or roadway.
- d. Notwithstanding any other provision of this permit, the prohibitions of Site Level Condition IV.19 may be enforced by any municipal or local government unit having jurisdiction over the place where such parking lots or roadways are located. Such enforcement shall be in accordance with the laws governing such municipal or local government unit. In addition, the Department may pursue the remedies provided by Article XXI §2109.02 for any violations of Site Level Condition IV.19.

#### 20. Permit Source Transport (§2105.43)

- a. No person shall transport, or allow to be transported, any solid or liquid material outside the boundary line of any source for which a permit is required by Article XXI Part C in such manner that there is any visible emission, leak, spill, or other escape of such material during transport.
- b. Notwithstanding any other provision of this permit, the prohibitions of Site Level Condition IV.20 may be enforced by any municipal or local government unit having jurisdiction over the place where such visible emission, leak, spill, or other escape of material during transport occurs. Such enforcement shall be in accordance with the laws governing such municipal or local government unit. In addition, the Department may pursue the remedies provided by Article XXI §2109.02 for any violation of Site Level Condition IV.20.

#### 21. Construction and Land Clearing (§2105.45)

- a. No person shall conduct, or allow to be conducted, any construction or land clearing activities in such manner that the opacity of emissions from such activities:
- 1) Equal or exceed 20% for a period or periods aggregating more than three (3) minutes in any



- sixty (60) minute period; or
- 2) Equal or exceed 60% at any time.

- b. Notwithstanding any other provision of this permit, the prohibitions of Site Level Condition IV.21 may be enforced by any municipal or local government unit having jurisdiction over the place where such construction or land clearing activities occur. Such enforcement shall be in accordance with the laws governing such municipal or local government unit. In addition, the Department may pursue the remedies provided by Article XXI §2109.02 for any violations of Site Level Condition IV.21.

## 22. Mining (§2105.46)

No person shall conduct, or allow to be conducted, any mining activities in such manner that emissions from such activities:

- a. Are visible at or beyond the property line;
- b. Have an opacity of 20% or more for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period; or,
- c. Have an opacity of 60% or more at any time.

## 23. Demolition (§2105.47)

- a. No person shall conduct, or allow to be conducted, any demolition activities in such manner that the opacity of the emissions from such activities equal or exceed 20% for a period or periods aggregating more than three (3) minutes in any 60 minute period.
- b. Notwithstanding any other provisions of this permit, the prohibitions of Site Level Condition IV.23 may be enforced by any municipal or local government unit having jurisdiction over the place where such demolition activities occur. Such enforcement shall be in accordance with the laws governing such municipal or local government unit. In addition, the Department may pursue the remedies provided by Article XXI §2109.02 for any violations of Site Level Condition IV.23.

## 24. Fugitive Emissions (§2105.49)

The person responsible for a source of fugitive emissions, in addition to complying with all other applicable provisions of this permit shall take all reasonable actions to prevent fugitive air contaminants from becoming airborne. Such actions may include, but are not limited to:

- a. The use of asphalt, oil, water, or suitable chemicals for dust control;
- b. The paving and maintenance of roadways, parking lots and the like;
- c. The prompt removal of earth or other material which has been deposited by leaks from transport, erosion or other means;
- d. The adoption of work or other practices to minimize emissions;
- e. Enclosure of the source; and
- f. The proper hooding, venting, and collection of fugitive emissions.

## 25. Episode Plans (§2106.02)

The permittee shall upon written request of the Department, submit a source curtailment plan, consistent with good industrial practice and safe operating procedures, designed to reduce emissions of air

contaminants during air pollution episodes. Such plans shall meet the requirements of Article XXI §2106.02.

**26. New Source Performance Standards (§2105.05)**

- a. It shall be a violation of this permit giving rise to the remedies provided by §2109.02 of Article XXI for any person to operate, or allow to be operated, any source in a manner that does not comply with all requirements of any applicable NSPS now or hereafter established by the EPA, except if such person has obtained from EPA a waiver pursuant to Section 111 or Section 129 of the Clean Air Act or is otherwise lawfully temporarily relieved of the duty to comply with such requirements.
- b. Any person who operates, or allows to be operated, any source subject to any NSPS shall conduct, or cause to be conducted, such tests, measurements, monitoring and the like as is required by such standard. All notices, reports, test results and the like as are required by such standard shall be submitted to the Department in the manner and time specified by such standard. All information, data and the like which is required to be maintained by such standard shall be made available to the Department upon request for inspection and copying.

**27. Acid Rain Program (§2103.22.j) (40 CFR 72 through 40 CFR 78)**

Pursuant to §2103.22 (Standard Acid Deposition Control Requirements), the Permittee shall comply with all provisions of the Acid Rain permit issued for this source, and any other applicable requirements contained in 40 CFR 72 through 40 CFR 78. The Acid Rain permit for this source is attached to this permit as Appendix A, and is incorporated by reference.

Emissions exceeding any allowances that the Permittee lawfully holds under the Title IV Acid Rain Program of the Clean Air Act are prohibited, subject to the following limitations: (§2103.22.j.7)

- a. No revision of this permit shall be required for increases in emissions that are authorized by allowances acquired under the Title IV Acid Rain Program, provided that such increases do not require a permit revision under any other applicable requirement.
- b. No limit shall be placed on the number of allowances held by the Permittee. The Permittee may not use allowances as a defense to noncompliance with any other applicable requirement.
- c. Any such allowance shall be accounted for according to the procedures established in regulations promulgated under Title IV of the Clean Air Act.

**28. NO<sub>x</sub> Emissions Averaging Plan**

- a. 25 Pa. Code §129.97 - Presumptive RACT requirements, RACT emission limitations and petition for alternative compliance schedule. The following Sources are included in a NO<sub>x</sub> Averaging Plan: CHESWICK MAIN BOILER NO. 1, CHESWICK AUXILIARY BOILER, BRUNOT ISLAND COMBUSTION TURBINES 2A, 2B AND 3, and BRUNOT ISLAND COMBUSTION TURBINE 1A unless or until ownership or operation is separated or until an application to terminate the plan and modify the respective permits is received by the Department.
  - 1) The owner and operator of a source listed in one or more of subsections (b)—(h) of 25 Pa. Code §129.97 located at a major NO<sub>x</sub> emitting facility or major VOC emitting facility subject to §129.96 (relating to applicability) shall comply with the applicable presumptive RACT

requirement or RACT emission limitation, or both, beginning with the specified compliance date as follows, unless an alternative compliance schedule is submitted and approved under subsections (k)—(m) of 25 Pa. Code §129.97 or §129.99 (relating to alternative RACT proposal and petition for alternative compliance schedule):

- a) January 1, 2017, for a source subject to §129.96(a).
  - b) January 1, 2017, or 1 year after the date the source meets the definition of a major NO<sub>x</sub> emitting facility or major VOC emitting facility, whichever is later, for a source subject to §129.96(b).
- 2) Except as specified under subsection (c) of 25 Pa. Code §129.97, the owner and operator of a NO<sub>x</sub> air contamination source specified in this subsection, which is located at a major NO<sub>x</sub> emitting facility or a VOC air contamination source specified in this subsection, which is located at a major VOC emitting facility subject to §129.96 may not cause, allow or permit NO<sub>x</sub> or VOCs to be emitted from the air contamination source in excess of the applicable presumptive RACT emission limitation:
- a) A combustion unit or process heater:
    - i) For a natural gas-fired combustion unit or process heater with a rated heat input equal to or greater than 50 million Btu/hour, 0.10 lb NO<sub>x</sub>/million Btu heat input. [CHESWICK MAIN BOILER NO. 1]
    - ii) For a distillate oil-fired combustion unit or process heater with a rated heat input equal to or greater than 50 million Btu/hour, 0.12 lb NO<sub>x</sub>/million Btu heat input. [CHESWICK AUXILIARY BOILER]
    - iii) For a coal-fired combustion unit with a rated heat input equal to or greater than 250 million Btu/hour that is:
      - (1) A tangentially fired combustion unit, 0.35 lb NO<sub>x</sub>/million Btu heat input. [CHESWICK MAIN BOILER NO. 1]
    - iv) For a coal-fired combustion unit with a selective catalytic reduction system operating with an inlet temperature equal to or greater than 600°F, 0.12 lb NO<sub>x</sub>/million Btu heat input. Compliance with this emission limit is also required when by-passing the selective catalytic reduction system. [CHESWICK MAIN BOILER NO. 1]
  - b) A combustion turbine:
    - i) For a combined cycle or combined heat and power combustion turbine with a rated output equal to or greater than 1,000 bhp and less than 180 MW when firing:
      - (1) Natural gas or a noncommercial gaseous fuel, 42 ppmvd NO<sub>x</sub> @ 15% oxygen. [BRUNOT ISLAND COMBUSTION TURBINES 2A, 2B AND 3; EQUIVALENT TO 0.155 lb/mmBtu]
      - (2) Natural gas or a noncommercial gaseous fuel, 5 ppmvd VOC (as propane) @ 15% oxygen.
    - ii) For a simple cycle or regenerative cycle combustion turbine with a rated output equal to or greater than 6,000 bhp when firing:

(1) Fuel oil, 96 ppmvd NO<sub>x</sub> @ 15% oxygen. [BRUNOT ISLAND COMBUSTION TURBINE 1A; EQUIVALENT TO 0.37 lb/mmBtu]

(2) Fuel oil, 9 ppmvd VOC (as propane) @ 15% oxygen.

c) A unit firing multiple fuels: [CHESWICK MAIN BOILER NO. 1]

i) The applicable RACT multiple fuel emission limit shall be determined on a total heat input fuel weighted basis using the following equation:

$$E_{HI\text{weighted}} = \frac{\sum_{n=1} E_i H_{ii}}{\sum_{n=1} H_{ii}} \text{ \{Equation 2\}}$$

Where:

$E_{HI\text{weighted}}$  = The heat input fuel weighted multiple fuel emission rate or emission limitation for the compliance period, expressed in units of measure consistent with the units of measure for the emission limitation.

$E_i$  = The emission rate or emission limit for fuel  $i$  during the compliance period, expressed in units of measure consistent with the units of measure for the emission limitation.

$H_{ii}$  = The total heat input for fuel  $i$  during the compliance period.

$n$  = The number of different fuels used during the compliance period.

ii) A fuel representing less than 1% of the unit's annual fuel consumption on a heat input basis is excluded when determining the applicable RACT multiple fuel emission limit calculated in accordance with subparagraph (i).

3) The requirements and emission limitations of this section supersede the requirements and emission limitations of a RACT permit issued to the owner or operator of an air contamination source subject to one or more of subsections (b)—(h) of 25 Pa. Code §129.97 prior to April 23, 2016, under § §129.91—129.95 (relating to stationary sources of NO<sub>x</sub> and VOCs) to control, reduce or minimize NO<sub>x</sub> emissions or VOC emissions, or both, from the air contamination source unless the permit contains more stringent requirements or emission limitations, or both.

4) The requirements and emission limitations of this section supersede the requirements and emission limitations of § §129.201—129.205, 145.111—145.113 and 145.141—145.146 (relating to additional NO<sub>x</sub> requirements; emissions of NO<sub>x</sub> from stationary internal combustion engines; and emissions of NO<sub>x</sub> from cement manufacturing) unless the requirements or emission limitations of § §129.201—129.205, § §145.111—145.113 or § §145.141—145.146 are more stringent.

b. 25 Pa. Code §129.98 - Facility-wide or system-wide NO<sub>x</sub> emissions averaging plan general requirements.

1) The owner or operator of a major NO<sub>x</sub>-emitting facility subject to 25 Pa. Code §129.96

(relating to applicability) that includes at least one air contamination source subject to a NO<sub>x</sub> RACT emission limitation in 25 Pa. Code §129.97 (relating to presumptive RACT requirements, RACT emission limitations and petition for alternative compliance schedule) that cannot meet the applicable NO<sub>x</sub> RACT emission limitation may elect to meet the applicable NO<sub>x</sub> RACT emission limitation in 25 Pa. Code §129.97 by averaging NO<sub>x</sub> emissions on either a facility-wide or system-wide basis using a 30-day rolling average. System-wide emissions averaging must be among sources under common control of the same owner or operator within the same ozone nonattainment area in this Commonwealth. [NOTE: THE CHESWICK STATION AND THE BRUNOT ISLAND STATION ARE BOTH UNDER COMMON OWNERSHIP. THE EMISION UNITS INCLUDED IN THE SYSTEM-WIDE NO<sub>x</sub> EMISSIONS AVERAGING PLAN ARE THE MAIN BOILER NO. 1 AND THE AUXILIARY BOILER AT CHESWICK AND COMBUSTION TURBINES 1A, 2A, 2B AND 3 AT BRUNOT ISLAND.]

- 2) The owner or operator of each facility that elects to comply with part §129.98(a) shall submit a written NO<sub>x</sub> emissions averaging plan to the Department or appropriate approved local air pollution control agency as part of an application for an operating permit modification or a plan approval, if otherwise required. The application incorporating the requirements of this section (25 Pa. Code §129.98) shall be submitted by the applicable date as follows:
  - a) October 24, 2016, for a source subject to 25 Pa. Code §129.96(a).
  - b) October 24, 2016, or 6 months after the date that the source meets the definition of a major NO<sub>x</sub> emitting facility, whichever is later, for a source subject to §129.96(b).
- 3) Each NO<sub>x</sub> air contamination source included in the application for an operating permit modification or a plan approval, if otherwise required, for averaging NO<sub>x</sub> emissions on either a facility-wide or system-wide basis using a 30-day rolling average submitted under part §129.98(b) must be an air contamination source subject to a NO<sub>x</sub> RACT emission limitation in 25 Pa. Code §129.97.
- 4) The application for the operating permit modification or the plan approval, if otherwise required, for averaging NO<sub>x</sub> emissions on either a facility-wide or system-wide basis using a 30-day rolling average submitted under part §129.98(b) must demonstrate that the aggregate NO<sub>x</sub> emissions emitted by the air contamination sources included in the facility-wide or system-wide NO<sub>x</sub> emissions averaging plan using a 30-day rolling average are not greater than the NO<sub>x</sub> emissions that would be emitted by the group of included sources if each source complied with the applicable NO<sub>x</sub> RACT emission limitation in 25 Pa. Code §129.97 on a source-specific basis.
- 5) The owner or operator shall calculate the alternative facility-wide or system-wide NO<sub>x</sub> RACT emissions limitation using a 30-day rolling average for the air contamination sources included in the application for the operating permit modification or plan approval, if otherwise required, submitted under part §129.98(b) by using the following equation to sum the emissions for all of the sources included in the NO<sub>x</sub> emissions averaging plan:

$$\left[ \sum ni = 1(Ei_{actual}) \right] \leq \left[ \sum ni = 1(Ei_{allowable}) \right]$$

Where:

n = The number of air contamination sources included in the NO<sub>x</sub> emissions averaging plan

E<sub>i actual</sub> = The actual NO<sub>x</sub> mass emissions, including emissions during startups, shutdowns and malfunctions, for air contamination source "i" on a 30-day rolling basis

$E_{i_{allowable}}$  = The allowable  $NO_x$  mass emissions computed using the allowable emission rate limitations for air contamination source "i" on a 30-day rolling basis specified in 25 Pa. Code §129.97. If an air contamination source included in an averaging plan is subject to a numerical emission rate limit that is more stringent than the applicable allowable emission rate limitation in 25 Pa. §129.97, then the numerical emission rate limit shall be used for the calculation of the allowable  $NO_x$  mass emissions.

- 6) The application for the operating permit modification or a plan approval, if otherwise required, specified in parts §129.98(b) through §129.98(e) may include facility-wide or system-wide  $NO_x$  emissions averaging using a 30-day rolling average only for  $NO_x$ -emitting sources or  $NO_x$ -emitting facilities that are owned or operated by the applicant.
- 7) The owner or operator of an air contamination source or facility included in the facility-wide or system-wide  $NO_x$  emissions averaging plan submitted in accordance with parts §129.98(b) through §129.98(h) shall submit the reports and records specified in 25 Pa. Code §129.98(g)(3) to the Department or appropriate approved local air pollution control agency on the schedule specified in 25 Pa. Code §129.98(g)(3) to demonstrate compliance with 25 Pa. Code §129.100.
- 8) The owner or operator of an air contamination source or facility included in a facility-wide or system-wide  $NO_x$  emissions averaging plan submitted in accordance with parts §129.98(b) through §129.98(h) that achieves emission reductions in accordance with other emission limitations required under the act or the Clean Air Act, or regulations adopted under the act or the Clean Air Act, that are not  $NO_x$  RACT emission limitations may not substitute those emission reductions for the emission reductions required by the facility-wide or system-wide  $NO_x$  emissions averaging plan submitted to the Department or appropriate approved local air pollution control agency under part §129.98(b).
- 9) The owner or operator of an air contamination source subject to a  $NO_x$  RACT emission limitation in 25 Pa. Code §129.97 that is not included in a facility-wide or system-wide  $NO_x$  emissions averaging plan submitted under part §129.98(b), shall operate the source in compliance with the applicable  $NO_x$  RACT emission limitation in 25 Pa. Code §129.97.
- 10) The owner and operator of the air contamination sources included in a facility-wide or system-wide  $NO_x$  emissions averaging plan submitted under part §129.98(b) shall be liable for a violation of an applicable  $NO_x$  RACT emission limitation at each source included in the  $NO_x$  emissions averaging plan.
- 11) Calculation of the Allowable  $NO_x$  Emissions ( $E_{i_{allowable}}$ )
  - a) For the NRG Cheswick Main Boiler No 1, the following equation (Equation 3) will be used to calculate Daily  $E_{i_{allowableM}}$  (in lbs):

$$\text{Daily } E_{i_{allowableM}} = [\sum n_i = 1(Z)(C_1) + (X)(C_2) + (G)(C3)] \text{ \{Equation 3\}}$$

Where:

Daily  $E_{i_{allowableM}}$  = The daily allowable  $NO_x$  mass emissions for the NRG Cheswick Main Boiler No. 1 computed using the allowable emission rate limitations for air contamination source "i" specified in 25 Pa. Code §129.97,

n = The number of operating hours in the day,

Z = 0.12 lb  $NO_x$ /mmBTU,

$C_1$  = The hourly heat input for coal-firing operations when SCR inlet T  $\geq$  600°F, expressed in units of mmBTU,

X = 0.35 lb  $NO_x$ /mmBTU,

$C_2$  = The hourly heat input for coal-firing operations when SCR inlet T < 600°F, expressed in units of mmBTU,

$G = 0.10 \text{ lb NO}_x/\text{mmBTU}$ ,

$C_3 =$  The hourly heat input for gas-firning operations, expressed in units of mmBTU,  
The hourly heat inputs ( $C_1$ ,  $C_2$ , and  $C_3$ ) shall be determined using fuel F-factors pursuant to 40 CFR Part 75, Appendix F, 40 CFR Part 60, and Appendix A, Method 19 and the data from the certified flue gas monitor. The SCR inlet temperature shall be continuously monitored for the Main Boiler No. 1.

- b) For the Cheswick Auxilliary Boiler, the following equation (Equation 4) will be used to calculate Daily  $E_{i\text{allowableA}}$  (in lbs.):

$$\text{Daily } E_{i\text{allowableA}} = [(Y)(FO)] \text{ \{Equation 4\}}$$

Where:

Daily  $E_{i\text{allowableA}} =$  The daily allowable  $\text{NO}_x$  mass emissions for the Cheswick Auxilliary Boiler computed using the allowable emission rate limitations for air contamination source "i" specified in 25 Pa. Code §129.97.,

$Y = 0.12 \text{ lb NO}_x/\text{mmBTU}$ ,

$FO =$  The daily total heat input for No. 2 Fuel Oil, expressed in units of mmBTU

- c) For the Brunot Island Combustion Turbine 1A, the following equation (Equation 5) will be used to calculate Daily  $E_{i\text{allowableBI1A}}$  (in lbs):

$$\text{Daily } E_{i\text{allowableBI1A}} = [(W)(FO)] \text{ \{Equation 5\}}$$

Where:

Daily  $E_{i\text{allowableBI1A}} =$  The daily allowable  $\text{NO}_x$  mass emissions for the Brunot Island Combustion Turbine 1A computed using the allowable emission rate limitations for air contamination source "i" specified in 25 Pa. Code §129.97,

$W = 0.37 \text{ lb NO}_x/\text{mmBTU}$  (equivalent to 96 ppmvd  $\text{NO}_x$  @ 15% oxygen),

$FO =$  The daily total heat input for No. 2 Fuel Oil, expressed in units of mmBTU,

The daily heat inputs shall be determined using fuel F-factors pursuant to 40 CFR Part 75, Appendix F, 40 CFR Part 60, Appendix A, Method 19, and fuel use records

- d) For each Brunot Island Combustion Turbines 2A, 2B & 3, the following equation (Equation 6) will be used to calculate Daily  $E_{i\text{allowableM}}$  (in lbs) for each turbine:

$$\text{Daily } E_{i\text{allowableBI}[2A,2B,3]} = [\sum n_i = 1(U)(CG_1) + (V)(G_2)] \text{ \{Equation 6\}}$$

Where:

Daily  $E_{i\text{allowableBI}[2A,2B,3]} =$  The daily allowable  $\text{NO}_x$  mass emissions for the Brunot Island Turbines 2A, 2B & 3 computed using the allowable emission rate limitations for air contamination source "i" specified in 25 Pa. Code §129.97,

$n =$  The number of operating hours in the day,

$U = 0.155 \text{ lb NO}_x/\text{mmBTU}$  (Equivalent to 42 ppmvd  $\text{NO}_x$  @ 15% oxygen),

$G_1 =$  The hourly heat input for operation when combustion turbine output is <60% load, expressed in units of mmBTU,

$V = 0.013 \text{ lb NO}_x/\text{mmBTU}$  (Equivalent to 3.5 ppmvd  $\text{NO}_x$  @ 15% oxygen),

$G_2 =$  Hourly heat input for operation when combustion turbine output is > 60% load, expressed in units of mmBTU,

The hourly heat inputs (G1 & G2) shall be determined using measurements and fuel F-factors pursuant to 40 CFR Part 75, Appendix F, 40 CFR Part 60, and Appendix A, Method 19 and fuel use records.

- e) The following equation (Equation 7) will be used to calculate Daily  $E_{i\text{allowable}}$ :

$$\text{Daily } E_{i\text{allowable}} = \text{Daily } E_{i\text{allowable}M} + \text{Daily } E_{i\text{allowable}A} + \text{Daily } E_{i\text{allowable}B11A} + \text{Daily } E_{i\text{allowable}B12} + \text{Daily } E_{i\text{allowable}B12A} + \text{Daily } E_{i\text{allowable}B13} \text{ \{Equation 7\}}$$

- f) The 30-day rolling system-wide allowable  $\text{NO}_x$  mass emissions ( $E_{i\text{allowable}}$ ) are calculated by summing the allowable  $\text{NO}_x$  mass emissions for the Cheswick Main Boiler No. 1, Cheswick Auxillary Boiler, Brunot Island Combustion Turbine 1A, Brunot Island Combustion Turbine 2A, Brunot Island Combustion Turbine 2B and Brunot Island Combustion Turbine 3 for each operating day (Daily  $E_{i\text{allowable}}$ ) and the previous 29 operating days. An operating day is a day in which any of the units in the plan combust fuel.

12) Comparison of  $E_{i\text{actual}}$  to  $E_{i\text{allowable}}$

- a) Beginning on January 1, 2017, the permittee shall demonstrate compliance with the alternative system-wide  $\text{NO}_x$  RACT emissions limitation using a 30-day rolling average by comparing  $E_{i\text{actual}}$  to  $E_{i\text{allowable}}$  for each system operating day.
- b) For each 30-day rolling period in which  $E_{i\text{actual}}$  exceeds  $E_{i\text{allowable}}$ , the permittee shall be liable for a violation of the applicable  $\text{NO}_x$  RACT emission limitation at each of the units included in the system-wide  $\text{NO}_x$  emissions averaging plan pursuant to 25 Pa. Code §129.98(m).

- c. 25 Pa. Code §129.100 – Compliance demonstration and recordkeeping requirements.

- 1) Except as provided in subsection (c) of 25 Pa. Code §129.100, the owner and operator of an air contamination source subject to a  $\text{NO}_x$  RACT requirement or RACT emission limitation or VOC RACT requirement or RACT emission limitation, or both, listed in § 129.97 (relating to presumptive RACT requirements, RACT emission limitations and petition for alternative compliance schedule) shall demonstrate compliance with the applicable RACT requirement or RACT emission limitation by performing the following monitoring or testing procedures:

- a) For an air contamination source with a CEMS, monitoring and testing in accordance with the requirements of Chapter 139, Subchapter C (relating to requirements for source monitoring for stationary sources) using a 30-day rolling average, except municipal waste combustors.

- i) A 30-day rolling average emission rate for an air contamination source that is a combustion unit shall be expressed in pounds per million Btu and calculated in accordance with the following procedure:

(1) Sum the total pounds of pollutant emitted from the combustion unit for the current operating day and the previous 29 operating days.

(2) Sum the total heat input to the combustion unit in million Btu for the current operating day and the previous 29 operating days.



- (3) Divide the total number of pounds of pollutant emitted by the combustion unit for the 30 operating days by the total heat input to the combustion unit for the 30 operating days.
    - ii) A 30-day rolling average emission rate for each applicable RACT emission limitation shall be calculated for an affected air contamination source for each consecutive operating day.
    - iii) Each 30-day rolling average emission rate for an affected air contamination source must include the emissions that occur during the entire operating day, including emissions from start-ups, shutdowns and malfunctions.
  - b) For an air contamination source without a CEMS, monitoring and testing in accordance with a Department-approved emissions source test that meets the requirements of Chapter 139, Subchapter A (relating to sampling and testing methods and procedures). The source test shall be conducted one time in each 5-year calendar period.
- 2) Except as provided in §129.97(k) and §129.99(i) (relating to alternative RACT proposal and petition for alternative compliance schedule), the owner and operator of an air contamination source subject to subsection (a) of 25 Pa. Code §129.100 shall demonstrate compliance with the applicable RACT requirement or RACT emission limitation in accordance with the procedures in subsection (a) of 25 Pa. Code §129.100 not later than:
  - a) January 1, 2017, for a source subject to §129.96(a) (relating to applicability).
  - b) January 1, 2017, or 1 year after the date that the source meets the definition of a major NO<sub>x</sub> emitting facility or major VOC emitting facility, whichever is later, for a source subject to §129.96(b).
- 3) The owner and operator of an air contamination source subject to this section and § 129.96—129.99 shall keep records to demonstrate compliance with § 129.96—129.99 in the following manner:
  - a) The records must include sufficient data and calculations to demonstrate that the requirements of § 129.96—129.99 are met.
  - b) Data or information required to determine compliance shall be recorded and maintained in a time frame consistent with the averaging period of the requirement.
- 4) The records shall be retained by the owner or operator for 5 years and made available to the Department or appropriate approved local air pollution control agency upon receipt of a written request from the Department or appropriate approved local air pollution control agency.
- 5) The permittee shall submit quarterly RACT system-wide NO<sub>x</sub> emissions averaging reports to the Department or appropriate approved local air pollution control agency. The permittee shall also submit a copy of each quarterly RACT system-wide NO<sub>x</sub> emissions averaging report described in this operating permit condition along with the quarterly CEMS reports. The permittee's demonstration of compliance with the system-wide NO<sub>x</sub> emissions limit shall be included in the quarterly RACT system-wide NO<sub>x</sub> emissions averaging report.

- 6) The quarterly RACT system-wide NO<sub>x</sub> emissions averaging reports shall be submitted according to the following schedule:
  - a) The quarterly report for the period of January 1 - March 31 is due no later than April 30.
  - b) The quarterly report for the period of April 1 - June 30 is due no later than July 30.
  - c) The quarterly report for the period of July 1 - September 30 is due no later than October 30.
  - d) The quarterly report for the period of October 1 - December 31 is due no later than January 30.
  - e) The permittee may request, in writing, an extension of time from the Department or appropriate approved local air pollution control agency for the filing of a quarterly RACT systemwide NO<sub>x</sub> emissions averaging report specified in part (a) of 25 Pa. Code §129.100, and the Department or appropriate approved local air pollution control agency may grant, in writing, the extension for reasonable cause.

**29. TR NO<sub>x</sub> Annual Trading Program Standard Requirements (40 CFR §97.406) {Applicable to Combustion Turbines 2A, 2B and 3}**

- a. *Designated representative requirements.* The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 40 CFR §97.413 through §97.418.
- b. Emissions monitoring, reporting, and recordkeeping requirements.
  - 1) The owners and operators, and the designated representative, of each TR NO<sub>x</sub> Annual source and each TR NO<sub>x</sub> Annual unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR §97.430 (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), §97.431 (initial monitoring system certification and recertification procedures), §97.432 (monitoring system out-of-control periods), §97.433 (notifications concerning monitoring), §97.434 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and §97.435 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).
  - 2) The emissions data determined in accordance with 40 CFR §97.430 through §97.435 shall be used to calculate allocations of TR NO<sub>x</sub> Annual allowances under 40 CFR §97.411(a)(2) and (b) and §97.412 and to determine compliance with the TR NO<sub>x</sub> Annual emissions limitation and assurance provisions under paragraph (c) below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 CFR §97.430 through §97.435 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.
- c. NO<sub>x</sub> emissions requirements.
  - 1) TR NO<sub>x</sub> Annual emissions limitation.
    - a) As of the allowance transfer deadline for a control period in a given year, the owners and operators of each TR NO<sub>x</sub> Annual source and each TR NO<sub>x</sub> Annual unit at the source shall

- hold, in the source's compliance account, TR NO<sub>x</sub> Annual allowances available for deduction for such control period under 40 CFR §97.424(a) in an amount not less than the tons of total NO<sub>x</sub> emissions for such control period from all TR NO<sub>x</sub> Annual units at the source.
- b) If total NO<sub>x</sub> emissions during a control period in a given year from the TR NO<sub>x</sub> Annual units at a TR NO<sub>x</sub> Annual source are in excess of the TR NO<sub>x</sub> Annual emissions limitation set forth in condition IV.29.c.1)a) above, then:
- (1) The owners and operators of the source and each TR NO<sub>x</sub> Annual unit at the source shall hold the TR NO<sub>x</sub> Annual allowances required for deduction under 40 CFR §97.424(d); and
  - (2) The owners and operators of the source and each TR NO<sub>x</sub> Annual unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart AAAAA and the Clean Air Act.
- 2) TR NO<sub>x</sub> Annual assurance provisions.
- a) If total NO<sub>x</sub> emissions during a control period in a given year from all TR NO<sub>x</sub> Annual units at TR NO<sub>x</sub> Annual sources in the state exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such NO<sub>x</sub> emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) TR NO<sub>x</sub> Annual allowances available for deduction for such control period under 40 CFR §97.425(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR §97.425(b), of multiplying (A) The quotient of the amount by which the common designated representative's share of such NO<sub>x</sub> emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state for such control period, by which each common designated representative's share of such NO<sub>x</sub> emissions exceeds the respective common designated representative's assurance level; and (B) The amount by which total NO<sub>x</sub> emissions from all TR NO<sub>x</sub> Annual units at TR NO<sub>x</sub> Annual sources in the state for such control period exceed the state assurance level.
  - b) The owners and operators shall hold the TR NO<sub>x</sub> Annual allowances required under condition IV.29.c.2)a) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period.
  - c) Total NO<sub>x</sub> emissions from all TR NO<sub>x</sub> Annual units at TR NO<sub>x</sub> Annual sources in the State during a control period in a given year exceed the state assurance level if such total NO<sub>x</sub> emissions exceed the sum, for such control period, of the state NO<sub>x</sub> Annual trading budget under 40 CFR §97.410(a) and the state's variability limit under 40 CFR 97.410(b).
  - d) It shall not be a violation of 40 CFR part 97, subpart AAAAA or of the Clean Air Act if total NO<sub>x</sub> emissions from all TR NO<sub>x</sub> Annual units at TR NO<sub>x</sub> Annual sources in the State during a control period exceed the state assurance level or if a common designated representative's share of total NO<sub>x</sub> emissions from the TR NO<sub>x</sub> Annual units at TR NO<sub>x</sub> Annual sources in the state during a control period exceeds the common designated representative's assurance level.
  - e) To the extent the owners and operators fail to hold TR NO<sub>x</sub> Annual allowances for a control period in a given year in accordance with conditions IV.29.c.2)a) through c) above,

- i) The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and
    - ii) Each TR NO<sub>x</sub> Annual allowance that the owners and operators fail to hold for such control period in accordance with conditions IV.29.c.2)a) through c) above and each of such of such control period shall constitute a separate violation of 40 CFR part 97, subpart AAAAA and the Clean Air Act.
  - 3) Compliance periods.
    - a) A TR NO<sub>x</sub> Annual unit shall be subject to the requirements under condition IV.29.c.1) above for the control period starting on the later of January 1, 2015, or the deadline for meeting the unit's monitor certification requirements under 40 CFR §97.430(b) and for each control period thereafter.
    - b) A TR NO<sub>x</sub> Annual unit shall be subject to the requirements under condition IV.29.c.2) above for the control period starting on the later of January 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR §97.430(b) and for each control period thereafter.
  - 4) Vintage of allowances held for compliance.
    - a) A TR NO<sub>x</sub> Annual allowance held for compliance with the requirements under condition IV.29.c.1)a) above for a control period in a given year must be a TR NO<sub>x</sub> Annual allowance that was allocated for such control period or a control period in a prior year.
    - b) A TR NO<sub>x</sub> Annual allowance held for compliance with the requirements under condition IV.29.c.1)b)(1) and conditions IV.29.c.2)a) through c) above for a control period in a given year must be a TR NO<sub>x</sub> Annual allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.
  - 5) Allowance Management System requirements. Each TR NO<sub>x</sub> Annual allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR part 97, subpart AAAAA.
  - 6) Limited authorization. A TR NO<sub>x</sub> Annual allowance is a limited authorization to emit one ton of NO<sub>x</sub> during the control period in one year. Such authorization is limited in its use and duration as follows:
    - a) Such authorization shall only be used.in accordance with the TR NO<sub>x</sub> Annual Trading Program; and
    - b) Notwithstanding any other provision of 40 CFR part 97, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.
  - 7) Property right. A TR NO<sub>x</sub> Annual allowance does not constitute a property right.
- d. Title V permit revision requirements.
  - 1) No title V permit revision shall be required for any allocation, holding, deduction, or transfer of TR NO<sub>x</sub> Ozone Season allowances in accordance with 40 CFR part 97, subpart AAAAA.
  - 2) This permit incorporates the TR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR §97.430 through §97.435, and the requirements for "a continuous emission monitoring system (pursuant to 40 CFR part 75, subparts B and H), an excepted monitoring system (pursuant to 40 CFR part 75, appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR §75.19), and an alternative monitoring system (pursuant to 40 CFR part 75, subpart E). Therefore, the Description of TR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this title V permit using minor permit modification procedures in accordance with 40 CFR §97.406(d)(2) and §70.7(e)(2)(i)(B) or §71.7(e)(1)(i)(B).

- e. Additional recordkeeping and reporting requirements.
  - 1) Unless otherwise provided, the owners and operators of each TR NO<sub>x</sub> Annual source and each TR NO<sub>x</sub> Annual unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.
    - a) The certificate of representation under 40 CFR §97.416 for the designated representative for the source and each TR NO<sub>x</sub> Annual unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 CFR §97.416 changing the designated representative.
    - b) All Emissions monitoring information, in accordance with 40 CFR Part 97, subpart AAAAA.
    - c) Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the TR NO<sub>x</sub> Annual Trading Program.
  - 2) The designated representative of a TR NO<sub>x</sub> Annual source and each TR NO<sub>x</sub> Annual unit at the source shall make all submissions required under the TR NO<sub>x</sub> Annual Trading Program, except as provided in 40 CFR §97.418. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a title V operating permit program in 40 CFR parts 70 and 71.
- f. Liability.
  - 1) Any provision of the TR NO<sub>x</sub> Ozone Season Trading Program that applies to a TR NO<sub>x</sub> Ozone Season source or the designated representative of a TR NO<sub>x</sub> Ozone Season source shall also apply to the owners and operators of such source and of the TR NO<sub>x</sub> Ozone Season units at the source.
  - 2) Any provision of the TR NO<sub>x</sub> Ozone Season Trading Program that applies to a TR NO<sub>x</sub> Ozone Season unit or the designated representative of a TR NO<sub>x</sub> Ozone Season unit shall also apply to the owners and operators of such unit.
- g. Effect on other authorities. No provision of the TR NO<sub>x</sub> Annual Trading Program or exemption under 40 CFR §97.405 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a TR NO<sub>x</sub> Annual source or TR NO<sub>x</sub> Annual unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.

**30. TR NO<sub>x</sub> Ozone Season Trading Program Standard Requirements (40 CFR §97.506) {Applicable to Combustion Turbines 2A, 2B and 3}**

- a. Designated representative requirements. The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 40 CFR §97.513 through §97.518
- b. Emissions monitoring, reporting, and recordkeeping requirements.
  - 1) The owners and operators, and the designated representative, of each TR NO<sub>x</sub> Ozone Season source and each TR NO<sub>x</sub> Ozone Season unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR §97.530 (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), §97.531 (initial monitoring system certification and recertification procedures), §97.532 (monitoring system out-of-control periods), §97.533

(notifications concerning monitoring), §97.534 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and §97.535 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).

- 2) The emissions data determined in accordance with 40 CFR §97.530 through §97.535 shall be used to calculate allocations of TR NO<sub>x</sub> Ozone Season allowances under 40 CFR §97.511 (a)(2) and (b) and §97.512 and to determine compliance with the TR NO<sub>x</sub> Ozone Season emissions limitation and assurance provisions under condition IV.30.c below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 CFR §97.530 through §97.535 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.
- c. NO<sub>x</sub> emissions requirements.
- 1) TR NO<sub>x</sub> Ozone Season emissions limitation.
    - a) As of the allowance transfer deadline for a control period in a given year, the owners and operators of each TR NO<sub>x</sub> Ozone Season source and each TR NO<sub>x</sub> Ozone Season unit at the source shall hold, in the source's compliance account, TR NO<sub>x</sub> Ozone Season allowances available for deduction for such control period under 40 CFR §97.524(a) in an amount not less than the tons of total NO<sub>x</sub> emissions for such control period from all TR NO<sub>x</sub> Ozone Season units at the source.
    - b) If total NO<sub>x</sub> emissions during a control period in a given year from the TR NO<sub>x</sub> Ozone Season units at a TR NO<sub>x</sub> Ozone Season source are in excess of the TR NO<sub>x</sub> Ozone Season emissions limitation set forth in condition IV.30.c.1)a) above, then:
      - i) The owners and operators of the source and each TR NO<sub>x</sub> Ozone Season unit at the source shall hold the TR NO<sub>x</sub> Ozone Season allowances required for deduction under 40 CFR §97.524(d); and
      - ii) The owners and operators of the source and each TR NO<sub>x</sub> Ozone Season unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart BBBBB and the Clean Air Act.
  - 2) TR NO<sub>x</sub> Ozone Season assurance provisions.
    - a) If total NO<sub>x</sub> emissions during a control period in a given year from all TR NO<sub>x</sub> Ozone Season units at TR NO<sub>x</sub> Ozone Season sources in the state exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such NO<sub>x</sub> emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) TR NO<sub>x</sub> Ozone Season allowances available for deduction for such control period under 40 CFR §97.525(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR §97.525(b), of multiplying
      - i) The quotient of the amount by which the common designated representative's share of such NO<sub>x</sub> emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state for such control period, by which each common designated representative's share of such NO<sub>x</sub> emissions exceeds the respective common designated representative's assurance level; and

- ii) The amount by which total NO<sub>x</sub> emissions from all TR NO<sub>x</sub> Ozone Season units at TR NO<sub>x</sub> Ozone Season sources in the state for such control period exceed the state assurance level.
  - b) The owners and operators shall hold the TR NO<sub>x</sub> Ozone Season allowances required under condition IV.30.c.2)a) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period.
  - c) Total NO<sub>x</sub> emissions from all TR NO<sub>x</sub> Ozone Season units at TR NO<sub>x</sub> Ozone Season sources in the state during a control period in a given year exceed the state assurance level if such total NO<sub>x</sub> emissions exceed the sum, for such control period, of the State NO<sub>x</sub> Ozone Season trading budget under 40 CFR §97.510(a) and the state's variability limit under 40 CFR §97.510(b).
  - d) It shall not be a violation of 40 CFR part 97, subpart BBBBBB or of the Clean Air Act if total NO<sub>x</sub> emissions from all TR NO<sub>x</sub> Ozone Season units at TR NO<sub>x</sub> Ozone Season sources in the state during a control period exceed the state assurance level or if a common designated representative's share of total NO<sub>x</sub> emissions from the TR NO<sub>x</sub> Ozone Season units at TR NO<sub>x</sub> Ozone Season sources in the state during a control period exceeds the common I designated representative's assurance level.
  - e) To the extent the owners and operators fail to hold TR NO<sub>x</sub> Ozone Season allowances for a control period in a given year in accordance with conditions IV.30.c.2)a) through c) above,
    - i) The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and
    - ii) Each TR NO<sub>x</sub> Ozone Season allowance that the owners and operators fail to hold for such control period in accordance with conditions IV.30.c.2)a) through c) above and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart BBBBBB and the Clean Air Act.
- 3) Compliance periods.
- a) A TR NO<sub>x</sub> Ozone Season unit shall be subject to the requirements under condition IV.30.c.1) above for the control period starting on the later of May 1, 2015 or the deadline for meeting the unit's monitor certification requirements under 40 CFR §97.530(b) and for each control period thereafter.
  - b) A TR NO<sub>x</sub> Ozone Season unit shall be subject to the requirements under condition IV.30.c.2) above for the control period starting on the later of May 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR §97.530(b) and for each control period thereafter.
- 4) Vintage of allowances held for compliance.
- a) A TR NO<sub>x</sub> Ozone Season allowance held for compliance with the requirements under condition IV.30.c.1)a) above for a control period in a given year must be a TR NO<sub>x</sub> Ozone Season allowance that was allocated for such control period or a control period in a prior year.
  - b) A TR NO<sub>x</sub> Ozone Season allowance held for compliance with the requirements under condition IV.30.c.1)b)i) and conditions IV.30.c.2)a) through c) above for a control period in a given year must be a TR NO<sub>x</sub> Ozone Season allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.
- 5) Allowance Management System requirements. Each TR NO<sub>x</sub> Ozone Season allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR part 97, subpart BBBBBB.
- 6) Limited authorization, A TR NO<sub>x</sub> Ozone Season allowance is a limited authorization to emit

one ton of NO<sub>x</sub> during the control period in one year. Such authorization is limited in its use and duration as follows:

- a) Such authorization shall only be used in accordance with the TR NO<sub>x</sub> Ozone Season Trading Program; and
  - b) Notwithstanding any other provision of 40 CFR part 97, subpart BBBBB, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.
- 7) Property right. A TR NO<sub>x</sub> Ozone Season allowance does not constitute a property right.
- d. Title V permit revision requirements.
- 1) No title V permit revision shall be required for any allocation, holding, deduction, or transfer of TR NO<sub>x</sub> Ozone Season allowances in accordance with 40 CFR part 97, subpart BBBBB.
  - 2) This permit incorporates the TR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR §97.530 through §97.535, and the requirements for a continuous emission monitoring system (pursuant to 40 CFR part 75, subparts B and H), an excepted monitoring system (pursuant to 40 CFR part 75, appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR 75.19), and an alternative monitoring system (pursuant to 40 CFR part 75, subpart E). Therefore, the Description of TR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this title V permit using minor permit modification procedures in accordance with 40 CFR §97.506(d)(2) and §70.7(e)(2)(i)(B) or §71.7(e)(1)(i)(B).
- e. Additional recordkeeping and reporting requirements.
- 1) Unless otherwise provided, the owners and operators of each TR NO<sub>x</sub> Ozone Season source and each TR NO<sub>x</sub> Ozone Season unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.
    - a) The certificate of representation under 40 CFR §97.516 for the designated representative for the source and each TR NO<sub>x</sub> Ozone Season unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 CFR §97.516 changing the designated representative.
    - b) All Emissions monitoring information, in accordance with 40 CFR Part 97, subpart BBBBB.
    - c) Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the TR NO<sub>x</sub> Annual Trading Program.
  - 2) The designated representative of a TR NO<sub>x</sub> Ozone Season source and each TR NO<sub>x</sub> Ozone Season unit at the source shall make all submissions required under the TR NO<sub>x</sub> Ozone Season Trading Program, except as provided in 40 CFR §97.518. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a title V operating permit program in 40 CFR parts 70 and 71.
- f. Liability.
- 1) Any provision of the TR NO<sub>x</sub> Ozone Season Trading Program that applies to a TR NO<sub>x</sub> Ozone Season source or the designated representative of a TR NO<sub>x</sub> Ozone Season source shall also



apply to the owners and operators of such source and of the TR NO<sub>x</sub> Ozone Season units at the source.

- 2) Any provision of the TR NO<sub>x</sub> Ozone Season Trading Program that applies to a TR NO<sub>x</sub> Ozone Season unit or the designated representative of a TR NO<sub>x</sub> Ozone Season unit shall also apply to the owners and operators of such unit.
- g. Effect on other authorities. No provision of the TR NO<sub>x</sub> Ozone Season Trading Program or exemption under 40 CFR §97.505 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a TR NO<sub>x</sub> Ozone Season source or TR NO<sub>x</sub> Ozone Season unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.
- h. In the event of a conflict between this permit condition and the provisions of 40 CFR Part 97, the provisions of 40 CFR Part 97 shall prevail.

**31. TR SO<sub>2</sub> Group 1 Trading Program Requirements (40 CFR 97.606) {Applicable to Combustion Turbines 2A, 2B and 3}**

- a. Designated representative requirements. The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 40 CFR §97.613 through §97.618.
- b. Emissions monitoring, reporting, and recordkeeping requirements.
  - 1) The owners and operators, and the designated representative, of each TR SO<sub>2</sub> Group 1 source and each TR SO<sub>2</sub> Group 1 unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR §97.630 (general requirements, including installation, certification, and data accounting, compliance deadlines, reporting data, prohibitions, and long-term cold storage), §97.631 (initial monitoring system certification and recertification procedures), §97.632 (monitoring system out-of-control periods), §97.633 (notifications concerning monitoring), §97.634 (recordkeeping and reporting, including monitoring plans, certification applications, quarterly reports, and compliance certification), and §97.635 (petitions for alternatives to monitoring, recordkeeping, or reporting requirements).
  - 2) The emissions data determined in accordance with 40 CFR §97.630 through §97.635 shall be used to calculate allocations of TR SO<sub>2</sub> Group 1 allowances under 40 CFR §97.611(a)(2) and (b) and §97.612 and to determine compliance with the TR SO<sub>2</sub> Group 1 emissions limitation and assurance provisions under condition IV.31.c below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 CFR §97.630 through §97.635 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.
- c. SO<sub>2</sub> emissions requirements. §97.618.
  - 1) TR SO<sub>2</sub> Group 1 emissions limitation.
    - a) As of the allowance transfer deadline for a control period in a given year, the owners and operators of each TR SO<sub>2</sub> Group 1 source and each TR SO<sub>2</sub> Group 1 unit at the source shall hold, in the source's compliance account, TR SO<sub>2</sub> Group 1 allowances available for deduction for such control period under 40 CFR §97.624(a) in an amount not less than the tons of total SO<sub>2</sub> emissions for such control period from all TR SO<sub>2</sub> Group 1 units at the source.
    - b) If total SO<sub>2</sub> emissions during a control period in a given year from the TR SO<sub>2</sub> Group 1 units at a TR SO<sub>2</sub> Group 1 source are in excess of the TR SO<sub>2</sub> Group 1 emissions limitation

set forth in condition IV.31.c.1)a) above, then:

- i) The owners and operators of the source and each TR SO<sub>2</sub> Group 1 unit at the source shall hold the TR SO<sub>2</sub> Group 1 allowances required for deduction under 40 CFR §97.624(d); and
  - ii) The owners and operators of the source and each TR SO<sub>2</sub> Group 1 unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation 40 CFR part 97, subpart CCCCC and the Clean Air Act.
- 2) TR SO<sub>2</sub> Group 1 assurance provisions.
- a) If total SO<sub>2</sub> emissions during a control period in a given year from all TR SO<sub>2</sub> Group 1 units at TR SO<sub>2</sub> Group 1 sources in the state exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such SO<sub>2</sub> emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) TR SO<sub>2</sub> Group 1 allowances available for deduction for such control period under 40 CFR §97.625(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR 97.625(b), of multiplying
    - i) The quotient of the amount by which the common designated representative's share of such SO<sub>2</sub> emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state for such control period, by which each common designated representative's share of such SO<sub>2</sub> emissions exceeds the respective common designated representative's assurance level; and
    - ii) The amount by which total SO<sub>2</sub> emissions from all TR SO<sub>2</sub> Group 1 units at TR SO<sub>2</sub> Group 1 sources in the state for such control period exceed the state assurance level.
  - b) The owners and operators shall hold the TR SO<sub>2</sub> Group 1 allowances required under condition IV.31.c.2)a) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after such control period.
  - c) Total SO<sub>2</sub> emissions from all TR SO<sub>2</sub> Group I units at TR SO<sub>2</sub> Group 1 sources in the state during a control period in a given year exceed the state assurance level if such total SO<sub>2</sub> emissions exceed the sum, for such control period, of the state SO<sub>2</sub> Group 1 trading budget under 40 CFR 97.610(a) and the state's variability limit under 40 CFR §97.610(b).
  - d) It shall not be a violation of 40 CFR part 97, subpart CCCCC or of the Clean Air Act if total SO<sub>2</sub> emissions from all TR SO<sub>2</sub> Group 1 units at TR SO<sub>2</sub> Group 1 sources in the state during a control period exceed the state assurance level or if a common designated representative's share of total SO<sub>2</sub> emissions from the TR SO<sub>2</sub> Group 1 units at TR SO<sub>2</sub> Group 1 sources in the state during a control period exceeds the common designated representative's assurance level.
  - e) To the extent the owners and operators fail to hold TR SO<sub>2</sub> Group I allowances for a control period in a given year in accordance with conditions IV.31.c.2)a) through c) above,
    - i) The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and
    - ii) Each TR SO<sub>2</sub> Group 1 allowance that the owners and operators fail to hold for such control period in accordance with IV.31.c.2)a) through c) above and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart CCCCC

and the Clean Air Act.

- 3) Compliance periods.
    - a) A TR SO<sub>2</sub> Group 1 unit shall be subject to the requirements under paragraph (c)(1) above for the control period starting on the later of January 1, 2015 or the deadline for meeting the unit's monitor certification requirements under 40 CFR §97.630(b) and for each control period thereafter.
    - b) A TR SO<sub>2</sub> Group 1 unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of January 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR §97.630(b) and for each control period thereafter.
  - 4) Vintage of allowances held for compliance.
    - a) A TR SO<sub>2</sub> Group 1 allowance held for compliance with the requirements under condition IV.31.c.1)a) above for a control period in a given year must be a TR SO<sub>2</sub> Group 1 allowance that was allocated for such control period or a control period in a prior year.
    - b) A TR SO<sub>2</sub> Group 1 allowance held for compliance with the requirements under condition IV.31.c.1)b)i) and conditions IV.31.c.2)a) through c) above for a control period in a given year must be a TR SO<sub>2</sub> Group 1 allowance that was allocated for a control period in a prior year or the control period in the given year or in the immediately following year.
  - 5) Allowance Management System requirements. Each TR SO<sub>2</sub> Group 1 allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR part 97, subpart CCCCc.
  - 6) Limited authorization. A TR SO<sub>2</sub> Group 1 allowance is a limited authorization to emit one ton of SO<sub>2</sub> during the control period in one year. Such authorization is limited in its use and duration as follows:
    - a) Such authorization shall only be used in accordance with the TR SO<sub>2</sub> Group 1 Trading Program; and
    - b) Notwithstanding any other provision of 40 CFR part 97, subpart CCCCC, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.
  - 7) Property right. A TR SO<sub>2</sub> Group 1 allowance does not constitute a property right.
- d. Title V permit revision requirements.
- 1) No title V permit revision shall be required for any allocation, holding, deduction, or transfer of TR SO<sub>2</sub> Group 1 allowances in accordance with 40 CFR part 97, subpart CCCCC.
  - 2) This permit incorporates the TR emissions monitoring, recordkeeping and reporting requirements pursuant to 40 CFR §97.630 through §97.635, and the requirements for a continuous emission monitoring system (pursuant to 40 CFR part 75, subparts B and H), an excepted monitoring system (pursuant to 40 CFR part 75, appendices D and E), a low mass emissions excepted monitoring methodology (pursuant to 40 CFR part 75.19), and an alternative monitoring system (pursuant to 40 CFR part 75, subpart E), Therefore, the Description of TR Monitoring Provisions table for units identified in this permit may be added to, or changed, in this title V permit using minor permit modification procedures in accordance with 40 CFR §97.606(d)(2) and §70.7(e)(2)(i)(B) or §71.7(e)(1)(i)(B).
- e. Additional recordkeeping and reporting requirements.
- 1) Unless otherwise provided, the owners and operators of each TR SO<sub>2</sub> Group 1 source and each TR SO<sub>2</sub> Group 1 unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in

writing by the Administrator.

- a) The certificate of representation under 40 CFR §97.616 for the designated representative for the source and each TR SO<sub>2</sub> Group 1 unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 CFR §97.616 changing the designated representative.
  - b) All emissions monitoring information, in accordance with 40 CFR part 97, subpart CCCCC.
  - c) Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the TR SO<sub>2</sub> Group 1 Trading Program.
- 2) The designated representative of a TR SO<sub>2</sub> Group 1 source and each TR SO<sub>2</sub> Group 1 unit at the source shall make all submissions required under the TR SO<sub>2</sub> Group 1 Trading Program, except as provided in 40 CFR §97.618. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a title V operating permit program in 40 CFR parts 70 and 71.
- f. Liability.
- 1) Any provision of the TR SO<sub>2</sub> Group 1 Trading Program that applies to a TR SO<sub>2</sub> Group 1 source or the designated representative of a TR SO<sub>2</sub> Group 1 source shall also apply to the owners and operators of such source and of the TR SO<sub>2</sub> Group 1 units at the source.
  - 2) Any provision of the TR SO<sub>2</sub> Group 1 Trading Program that applies to a TR SO<sub>2</sub> Group 1 unit or the designated representative of a TR SO<sub>2</sub> Group 1 unit shall also apply to the owners and operators of such unit.
- g. Effect on other authorities. No provision of the TR SO<sub>2</sub> Group 1 Trading Program or exemption under 40 CFR §97.605 shall be construed as exempting Or excluding the owners and operators, and the designated representative, of a TR SO<sub>2</sub> Group 1 source or TR SO<sub>2</sub> Group 1 unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.
- h. In the event of a conflict between this permit condition and the provisions of 40 CFR Part 97, the provisions of 40 CFR 97 shall prevail.

***“PERMIT SHIELD” IN EFFECT.***

**V. EMISSION UNIT LEVEL TERMS AND CONDITIONS****A. Combustion Turbine 1A**

<b>Process Description:</b>	Simple Cycle Combustion Turbine
<b>Facility ID:</b>	1A
<b>Maximum Design Rate:</b>	300 MMBtu/hr
<b>Fuel(s):</b>	No. 2 Fuel Oil
<b>Control Device(s):</b>	None

**1. Restrictions:**

- a. Only no.2 fuel oil with a maximum sulfur content of 0.2% shall be combusted in the combustion turbine. (§2103.12.a.2.B)
- b. The combustion turbine shall be operated in simple cycle mode only. (§2103.12.a.2.B)
- c. The maximum allowable capacity factor shall not exceed 36% in any consecutive twelve months. (RACT Order No. 214, condition 1.4)
- d. The permittee shall not operate the combustion turbine at a capacity factor greater than 30% without first installing, operating and maintaining CEMs in accordance with the requirements of 40 CFR Part 51 Appendix P and §2108.03. (§2108.03)
- e. Emissions of particulate matter from unit 1A shall not exceed 0.005 lb/MMBtu. (Operating permit no. 1065009-000-23600)
- f. Emissions of nitrogen oxides from unit 1A shall not exceed 96 ppmvd @ 15% oxygen (0.370 lb/MMBtu). (25 Pa. Code §129.97.g.(2)(iv)(B))
- g. Emissions of sulfur oxides from unit 1A shall not exceed 0.21 lb/MMBtu. (§2103.12.a.2.B)
- h. Emissions of carbon monoxide from unit 1A shall not exceed 50 ppm at 15% O<sub>2</sub>. (§2103.12.a.2.B)
- i. Emissions of volatile organic compounds from unit 1A shall not exceed 9 ppmvd (as propane) @ 15% oxygen. (25 Pa. Code §129.97.g.(2)(iv)(D))
- j. The permittee shall at all times properly operate and maintain all process and emission control equipment at the facility according to good engineering practice. (RACT Order No. 214, condition 1.10)
- k. Fuel oil combustion in unit 1A shall not exceed 2,200 gallons/hr or 6,937,920 gallons per consecutive twelve-month period. (§2103.12.a.2.B)
- l. The emissions due to operation of the simple cycle turbine 1A shall not exceed the following emission limitations: (25 Pa. Code §129.97.g.(2)(i)(B), 25 Pa. Code §129.97.g.(2)(i)(D) §2103.12.a.2.B)

**TABLE V-A-1 - Emission Limitations for Unit 1A**

<b>POLLUTANT</b>	<b>HOURLY EMISSION LIMIT (lb/hr)</b>	<b>ANNUAL EMISSION LIMIT (tons/year)<sup>1</sup></b>
PARTICULATE MATTER <sup>2</sup>	1.50	2.37
PM <sub>10</sub> <sup>2</sup>	1.50	2.37
NITROGEN OXIDES	111.0 <sup>3</sup>	175.0
SULFUR OXIDES	63.0	99.3
CARBON MONOXIDE	35.5	56.0
VOLATILE ORGANIC COMPOUNDS	4.1	6.54

<sup>1</sup> A year is defined as any consecutive 12-month period.

<sup>2</sup> PM and PM<sub>10</sub> limits are for the filterable portion.

<sup>3</sup> 30-day rolling average

- m. Compliance with the nitrogen oxides emission limitations of V.A.1.f above and TABLE V-A-1 (lb/hr) shall be determined through following the NO<sub>x</sub> Emissions Averaging Plan requirements in Condition IV.28 above. (25 Pa. Code §129.98; 25 Pa. Code §129.100)

**2. Testing Requirements:**

- a. NO<sub>x</sub> emissions testing shall be conducted within six (6) months following any consecutive twelve (12) month period where the combined average capacity factor of all units operating in simple cycle combustion mode is greater than 3.5%. The subsequent tests shall be conducted on Unit 1A operating in simple cycle mode according to U.S. EPA approved reference test methods 6C and 7E, or other method approved by the Department, and Site Level Condition IV.13 above. (RACT Order No. 214, condition 1.6, §2103.12.a.2.B)
- b. NO<sub>x</sub> emissions testing on the unit shall be performed at least once every five (5) years. (§2103.12.h.1)
- c. The Department reserves the right to require any additional emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing, if required, shall be performed in accordance with Article XXI §2108.02 and Site Level Condition IV.13 above entitled "Emissions Testing." (§2103.12.h.1)

**3. Monitoring Requirements:**

- a. The permittee shall monitor the sulfur content of the fuel oil used in unit 1A each time the fuel oil is transferred into storage tanks T-001 and T-002. Sulfur content shall be determined by ASTM D 2880-71 or another method approved by the Department. Analyses by the fuel supplier of the fuel as received, using the proscribed test methods, shall be acceptable to fulfill this requirement. (§2103.12.a.2.B; RACT Order No. 214, condition 1.6)
- b. The permittee shall install, operate, and maintain a fuel flow monitor to measure the fuel combusted by the combustion turbine. (§2103.12.a.2.B)

- c. The monitor installed to meet the requirements of Condition V.A.1.d above shall be approved in advance by the Department.

**4. Record Keeping Requirements:**

- a. The permittee shall record fuel usage and fuel analysis data for Unit 1A while operating in SCC mode. (RACT Order No. 214, condition 1.6 §2103.12.j)
- b. The permittee shall keep and maintain the following data for the combustion turbine:
  - 1) Fuel consumption, fuel sulfur content and hours of operation (daily, monthly, 12-month);
  - 2) The date, time, cause and the action taken to correct any malfunction (upon occurrence, monthly);
  - 3) The start-up and shutdown of the combustion turbine, including date, time and duration of each event (upon occurrence, monthly);
  - 4) Records of fuel analyses required by Condition V.A.3.a above (each shipment);
  - 5) Manufacturers specifications for the combustion turbines, duct burners and air pollution control equipment onsite;
  - 6) Records of operation, maintenance, inspection, calibration and/or replacement of combustion and control equipment; and
  - 7) Stack test protocols and reports.
- c. The permittee shall record all instances of non-compliance with the conditions of this permit upon occurrence along with corrective action taken to restore compliance. (§2103.12.h.1)
- d. All records shall be retained for at least five (5) years. The most recent two years of data shall be maintained onsite. The remaining records may be located off site and shall be made available to the Department upon request for inspection and/or copying within 5 business days. In the event a few onsite records requested by the Department cannot be produced onsite, the permittee may produce the record(s) within 5 business days. (§2103.12.j.2)

**5. Reporting Requirements:**

- a. The permittee shall report the following information to the Department in accordance with General Condition III.15 above The reports shall contain all required information for the time period of the report: (§2103.12.k.1)
  - 1) Monthly data required to be recorded by condition V.A.4.b above;
  - 2) Rolling 12-month total emissions for nitrogen oxides, carbon monoxide, and sulfur oxides;
  - 3) Rolling twelve-month heat input totals for each combustion turbine, and
  - 4) Non-compliance information required to be recorded by condition V.A.4.c above.
- b. Reporting instances of non-compliance in accordance with condition V.A.5.a above, does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.8 above, if appropriate. (§2103.12.k.1)

**6. Work Practice Standards:**

None except as provided elsewhere.

**B. Combustion Turbines 2A, 2B &3**

**Process Description:** Three GE 7000B (678 MMBtu/hr) Combustion Turbines (name plate ratings of 63 MW base), each with 240 MMBtu/hr HRSGs  
**Facility ID:** Units 2A, 2B & 3  
**Capacity:** 918 MMBtu/hr per unit (Combustion Turbine and HRSG)  
**Fuel:** Natural gas  
**Control Device:** Water injection with SCR

**1. Restrictions:**

- a. Only pipeline natural gas shall be combusted in the combustion turbines and HRSGs. (Installation Permit #0056-I001c, condition V.A.1.a; §2102.04.b.6)
- b. Heat input to each HRSG duct burner shall be limited to 240 MMBtu/hr. (Installation Permit #0056-I001c, condition V.A.1.b; §2102.04.b.6)
- c. Nitrogen oxides emissions shall not exceed 3.5 ppm<sub>vd</sub> @ 15% O<sub>2</sub> during any three hour time period at or above 60% of full load. Each hour of the 3-hour time period shall be a clock hour. (Installation Permit #0056-I001c, condition V.A.1.c; §2102.04.b.6)
- d. Emissions of particulate matter from each unit shall not exceed 0.015 lb/MMBtu. (Installation Permit #0056-I001c, condition V.A.1.d; §2104.02.a.1.A.)
- e. Emissions of sulfur oxides from each unit shall not exceed 0.00286 lb/MMBtu. (Installation Permit #0056-I001c, condition V.A.1.e; §2102.04.b.6)
- f. Emissions of ammonia from each unit shall not exceed 10 ppm<sub>vd</sub> at any time. (Installation Permit #0056-I001c, condition V.A.1.f; §2102.04.b.6)
- g. The following conditions shall apply during start-up and shutdown periods: (Installation Permit #0056-I001c, condition V.A.1.g)
  - 1) A cold start-up shall be defined as an event that occurs after the combustion turbine has not been operating for at least 24 hours. A cold start-up shall not last longer than 8.0 hours after ignition.
  - 2) A warm start-up shall be defined as an event that occurs after the combustion turbine has not been operating for more than 8 hours but less than 24 hours. A warm start-up shall not last longer than 5.0 hours after ignition.
  - 3) A hot start-up shall be defined as an event that occurs after the combustion turbine has not been operating for less than or equal to 8 hours. A hot start-up shall not last longer than 3.0 hours after ignition.
  - 4) A start-up shall be defined as the period after ignition until the unit reaches 60% of full load or until a shutdown is commenced even if 60% load has not been achieved or until the applicable maximum duration per Condition V.B.1.g.1), V.B.1.g.2), or V.B.1.g.3) above is realized, whichever comes first.
  - 5) A shutdown shall commence when fuel injection into the combustion chamber is terminated.
  - 6) Emission limitations contained in conditions V.B.1.c and V.B.1.d above as well as V.B.1.k below shall not apply during start-up, shutdown and run back events.
  - 7) Emissions of nitrogen oxides, sulfur oxides, volatile organic compounds, carbon monoxide,



- PM/PM<sub>10</sub> and formaldehyde shall be included in the 12-month rolling emissions totals.
- 8) Startup trip – refers to an event in which the startup is abruptly and prematurely ceased and a shutdown in commenced. The period of startup prior to occurrence of a startup trip shall not be counted when determining whether the subsequent startup complies with the time limits for startups specified in Conditions V.B.1.g.1), V.B.1.g.2), and V.B.1.g.3) above unless the combustion turbine was operating for at least 30 consecutive minutes prior to the startup trip.
- h. Startup duration limits listed in Conditions V.B.1.g.1) through V.B.1.g.3) above shall be extended for 2 hours whenever the ambient temperature is 30 degrees Fahrenheit or below. (§2105.03)
  - i. Combustion turbine run back (“run back”) is an event where operations of the combustion turbine at or above 60% full load incurs a process error and load on the combustion turbine is reduced to below 60% full load to resolve the issue. During combustion turbine run back, the following conditions apply: (§2105.03)
    - 1) At commencement of combustion turbine run back and the point that unit output is less than 60% full load, the permittee must resolve the problem within 120 minutes and return to operation of at least 60% full load or initiate shutdown procedures;
    - 2) Emission limitations contained in Conditions V.B.1.c and V.B.1.d above as well as the hourly emission limits in Condition V.B.1.k below V.B.1.(lbs/hr) shall not apply during run back events; and
    - 3) The occurrence and duration of each runback event shall be recorded and reported as required in Condition V.B.4.a.4) below.
  - j. Site Level Condition IV.2 above relating to opacity, does not apply to the visible emissions resulting solely from the cold start of Units 2A, 2B and 3, if such cold start has been reported in accordance with Condition V.B.5.a.3) below. (Installation Permit #0056-I001c, condition V.A.1.h; §2104.01.b.3.)
  - k. Emissions due to operation of each combined cycle turbine 2A, 2B & 3 shall not exceed the following limitations: (Installation Permit #0056-I001c, condition V.A.1.i; §2102.04.b.6)

**TABLE V-B-1 – Units 2A, 2B and 3 Emission Limitations (Each Unit)**

<b>POLLUTANT</b>	<b>HOURLY EMISSION LIMIT (lb/hr)</b>	<b>ANNUAL EMISSION LIMIT (tons/year)<sup>1</sup></b>
PARTICULATE MATTER <sup>5</sup>	6.7	30.0
PM <sub>10</sub> <sup>5</sup>	6.7	30.0
NITROGEN OXIDES	11.8 <sup>2</sup>	51.7
SULFUR OXIDES	2.6	11.5
CARBON MONOXIDE	40 <sup>3</sup> /60 <sup>4</sup>	175
VOLATILE ORGANIC COMPOUNDS	3.0	12
FORMALDEHYDE	0.64 <sup>3</sup> /1.32 <sup>4</sup>	2.8

AMMONIA	14.0	61.3
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<sup>1</sup>A year is defined as any consecutive 12-month period.

<sup>2</sup>Based on a rolling, 3-hour average.

<sup>3</sup>Emissions at 90 - 100% full load.

<sup>4</sup>Emissions at less than 90% full load.

<sup>5</sup>PM and PM<sub>10</sub> limits are for the filterable portion.

- l. Emission factors established during the emissions testing at 60% to 70% full load for volatile organic compounds and formaldehyde shall be used to quantify emissions at loads less than 90%. (Installation Permit #0056-I001c, condition V.A.1.j)
- m. In accordance with Article XXI, §2109, "Enforcement," the Department may enforce the NO<sub>x</sub> allowance provisions of this permit and Article XXI, §2105.100. (Installation Permit #0056-I001c, condition V.A.1.m; §2105.100.h.2.)
- n. Pursuant to Title IV-Acid Deposition Control of the Clean Act Amendments of 1990, combustion turbines 2A, 2B and 3 and associated heat recovery steam generators (HRSGs) shall comply with all applicable provisions of Title IV including the following: (Installation Permit #0056-I001c, condition V.A.1.n; )
  - 1) 40 CFR Part 72 Permit Regulation
  - 2) 40 CFR Part 73 Sulfur Dioxide Allowance
  - 3) 40 CFR Part 75 Continuous Emission Monitoring
  - 4) 40 CFR Part 77 Excess Emissions
- o. Emissions of nitrogen oxides from each unit shall not exceed 42 ppmvd @ 15% oxygen. (25 Pa. Code §129.97.g.(2)(i)(A))
- p. Emissions of volatile organic compounds from each unit shall not exceed 5 ppmvd (as propane) @ 15% oxygen. (25 Pa. Code §129.97.g.(2)(i)(C))
- q. Combustion Turbines 2A, 2B and 3 shall all comply with the Cross-State Air Pollution Rule requirements in Conditions IV.29, IV.30, and IV.31 above. (40 CFR Part 97)
- r. Compliance with the nitrogen oxides emission limitations of V.B.1.o above shall be determined through following the NO<sub>x</sub> Emissions Averaging Plan requirements in Condition IV.28 above. (25 Pa. Code §129.98; 25 Pa. Code §129.100)

**2. Testing Requirements:**

- a. The permittee shall perform ammonia and volatile organic compounds emissions testing on each Unit within 6 months of the Unit operating 900 hours (not including startup and shutdown) or once every 5 years, whichever is sooner, in order to demonstrate compliance with the emission limitations of conditions V.B.1.f above and V.B.1.k above. Such testing is not required more than once every 12 consecutive months from the most recent test date and shall be conducted in accordance with applicable U.S. EPA test methods CTM-027, 18 & 25A or other test methods approved by the Dept., Article XXI §2108.02 and Site Level Condition IV.13 above. (Installation Permit #0056-I001c, condition V.A.2.c)
- b. The permittee shall at a minimum continuously monitor and record (at least once every 15 minutes

except for item 5) the following operating parameters during each emissions test run. The data shall be provided as part of the emissions test report (Installation Permit #0056-I001c, condition V.A.2.d; §2102.04.b.6):

- 1) Total unit power output (MW);
  - 2) Water addition rate (gpm);
  - 3) Ammonia injection rate (lb/hr);
  - 4) SCR catalyst bed inlet gas temperature ; (°F)
  - 5) Ammonia solution concentration;
  - 6) NO<sub>x</sub> emissions (ppm and lb/hr) from the CEM;
  - 7) CO emissions ppm and lb/hr) from the CEM;
  - 8) Stack exhaust gas flow rate from the CEM or fuel flow rate.
- c. Emissions testing to determine the PM<sub>10</sub> and volatile organic compound emissions during cold, warm, and hot start up conditions has been performed as of the issuance date of this permit and these results shall be used to determine emissions attributed to startup conditions. The permittee may retest to determine startup emissions upon written approval of the Department. Emissions of nitrogen oxides and carbon monoxide during start up conditions shall be determined by the CEM. (Installation Permit #0056-I001c, condition V.A.2.b; §2102.04.b.6)
- d. The Department reserves the right to require any additional emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing, if required, shall be performed in accordance with Article XXI §2108.02 and Site Level Condition IV.13 above entitled "Emissions Testing." (§2103.12.h.1)

### 3. Monitoring Requirements:

- a. The permittee shall install, operate and maintain continuous emission monitors for nitrogen oxides, oxygen and carbon monoxide on each unit. (Installation Permit #0056-I001c, condition V.A.3.a; §2108.03.a., b., and c.)
- b. Continuous emission monitoring systems for exhaust gas flow (or the fuel flow monitors specified by V.B.3.c below), nitrogen oxides, carbon monoxide (CO) and oxygen (O<sub>2</sub>) shall be approved by the Department and installed, operated and maintained in accordance with the requirements of 25 Pa Code Chapter 139 and Article XXI, §2108.03. (Installation Permit #0056-I001c, condition V.A.3.b)
  - 1) No continuous emission monitoring system shall be considered to meet the requirements of this permit unless such system has been approved by the Department in writing. At least 45 days prior to installing any such system, or at such other times as is specified in an applicable order or permit condition, the person responsible for the affected source shall make written application to the Department for the approval of such system, which application shall include a thorough description of the system, the location where such system will be installed, a program for periodic calibration, zero and span drift checks and other quality assurance procedures and all other information needed by the Department to evaluate such system. The Department shall make its evaluation in accordance with all relevant guidelines, including the performance specifications and other requirements of Appendix P of 40 CFR Part 51 and Appendix B of 40 CFR Part 60, including all modifications to such appendices as may hereafter be made by the EPA. (Installation Permit #0056-I001c, condition V.A.3.b.2); §2108.03.e.)

- 2) Failure to install and operate any continuous emissions monitoring system required by this permit or by an order, within the time specified, the failure to retain any data or submit any report so required, or the knowing retention or reporting of false data shall be a violation of this permit giving rise to the remedies provided by Article §2109.02. (Installation Permit #0056-I001c, condition V.A.3.b.3); §2108.03.f.)
- c. Continuous fuel flow monitors shall be installed and maintained in accordance with 40 CFR Part 75 Appendix D Chapter 2.1. (Installation Permit #0056-I001c, condition V.A.3.c)
- d. The permittee shall utilize the appropriate SO<sub>2</sub> quantification method specified in 40 CFR Part 75, Appendix D. The specific method will be specified in the Title IV Monitoring Plan. A copy of the Monitoring Plan will be submitted to ACHD for review and approval at the time of initial submittal to the EPA 's Acid Rain Division. (Installation Permit #0056-I001c, condition V.A.3.d)
- e. The following parameters shall be monitored for each SCR: (Installation Permit #0056-I001c, condition V.A.3.e; §2103.12.j & k)
  - 1) Catalytic bed inlet gas temperature (at least once every 15 minutes);
  - 2) Ammonia solution injection rate. (at least once every 15 minutes); and
  - 3) Ammonia solution concentration.
- f. The permittee shall operate and maintain Units 2A, 2B, and 3 and the associated control equipment and monitoring instrumentation in accordance with the manufacturer's specifications and good air pollution control practice. (Installation Permit #0056-I001c, condition V.A.3.f)

#### 4. Record Keeping Requirements:

- a. The permittee shall keep and maintain the following data for units 2A, 2B & 3: (Installation Permit #0056-I001c, conditions V.A.4 b, c, d, e, f & g, §2103.12.a.2.B, §2103.12.j.2)
  - 1) Hourly fuel consumption and hours of operation (monthly total fuel, 12-month rolling totals);
  - 2) Emissions for the following pollutants: PM, PM<sub>10</sub>, sulfur oxides, nitrogen oxides, carbon monoxide, volatile organic compounds, formaldehyde, and ammonia (monthly total emissions, 12-month rolling totals);
  - 3) The date, time, cause and the action taken to correct any malfunction (upon occurrence, monthly) ;
  - 4) The start-up, shutdown and run back events of each combustion turbine, including date, time and duration of each event (upon occurrence, monthly);
  - 5) Manufacturer's specifications for all CEMs that are required by this permit (maintained on site);
  - 6) Manufacturer's specifications for the combustion turbines, duct burners and air pollution control equipment (maintained on site);
  - 7) Records of operation (including parameters required to be monitored in Condition V.B.3.e above), maintenance, inspection, calibration and/or replacement of combustion and control equipment; and
  - 8) Stack test protocols and reports.
- b. The permittee shall keep and maintain records sufficient to demonstrate compliance with the annual limits for PM, PM<sub>10</sub>, carbon monoxide, volatile organic compounds, and formaldehyde; 3-hour NO<sub>x</sub> emission limitation; and the hourly and annual sulfur oxides limitations specified in Conditions V.B.1.c and V.B.1.k above. (Installation Permit #0056-I001c, condition V.A.4.h,

§2103.12.j.2)

- c. The permittee shall keep and maintain all records required by 40 CFR Parts 72 through 78. (Installation Permit #0056-I001c, condition V.A.4.i)
- d. The permittee shall retain records of all required monitoring data and support information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings and/or electronic data for continuous monitoring instrumentation, and copies of all reports required by this permit. (Installation Permit #0056-I001c, condition V.A.4.b & V.A.4.j; §2103.12.j.2)
- e. The permittee shall record all instances of non-compliance with the conditions of this permit upon occurrence along with corrective action taken to restore compliance. (§2103.12.h.1; Installation Permit #0056-I001c, condition V.A.4.a)
- f. All records shall be retained for at least five (5) years. The most recent two years of data shall be maintained onsite. The remaining records may be located off site and shall be made available to the Department upon request for inspection and/or copying within 5 business days. In the event a few onsite records requested by the Department cannot be produced onsite, the permittee may produce the record(s) within 5 business days. (§2103.12.j.2)

## 5. Reporting Requirements:

- a. The permittee shall report the following information to the Department in accordance with General Condition III.15 above. The reports shall contain all required information for the time period of the report: (§2103.12.k.1, Installation Permit #0056-I001c, condition V.A.5.a)
  - 1) Monthly data required to be recorded by condition V.B.4.a above;
  - 2) Rolling 12-month total emissions for nitrogen oxides, carbon monoxide, and sulfur oxides; and
  - 3) Non-compliance information required to be recorded by condition V.B.4.e above.
- b. The permittee shall report exceedances to the Department in accordance with 40 CFR Part 77 Excess Emissions reporting requirements. (Installation Permit #0056-I001c, condition V.A.5.b)
- c. The permittee shall report emissions to the Department in accordance with 40 CFR Part 75 Continuous Emission Monitoring reporting requirements. (Installation Permit #0056-I001c, condition V.A.5.b)
- d. Condition V.B.5.c above can be met by submitting quarterly reports to the U.S. EPA Clean Air Markets Division, as per 40 CFR Part 75. (40 CFR Part 75)
- e. Reporting instances of non-compliance in accordance with condition V.B.5.a.3) above, does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.8 above, if appropriate. (§2103.12.k.1)

## 6. Work Practice Standards:

None except as provided elsewhere.

***“PERMIT SHIELD” IN EFFECT.***

**C. Process P001: Cooling Tower CT-1**

**Process Description:** Multi-cell evaporative cooling tower  
**Facility ID:** CT-1  
**Capacity:** 84,000 gallon per minute  
**Control Device:** Mist eliminators

**1. Restrictions:**

- a. Total dissolved solids concentration in the cooling tower water shall be limited to a maximum of 3327 ppm<sub>w</sub> at any time. (Installation Permit #0056-I001c, condition V.B.1.a; §2102.04.b.6)
- b. The cooling tower shall be equipped with drift eliminators designed to achieve a drift of 0.005% or better at all times. (Installation Permit #0056-I001c, condition V.B.1.b; §2102.04.b.6)
- c. The cooling tower shall be operated and maintained in accordance with the manufacturer’s specifications and instructions at all times. (Installation Permit #0056-I001c, condition V.B.1.c; §2102.04.b.6)
- d. Emissions from the 84,000 gallon per minute circulating water cooling tower shall not exceed the following limitations: (Installation Permit #0056-I001c, condition V.B.1.d; §2102.04.b.6)

**TABLE V-C-1 - Emission Limitations**

POLLUTANT	DAILY EMISSION LIMIT (lb/day)	ANNUAL EMISSION LIMIT (tons/year) <sup>1</sup>
PARTICULATE MATTER <sup>2</sup>	53.52	9.76
PM <sub>10</sub> <sup>2</sup>	53.52	9.76

<sup>1</sup> A year is defined as any consecutive 12-month period.

<sup>2</sup> PM and PM<sub>10</sub> limits are for the filterable portion.

**2. Testing Requirements:**

The Department reserves the right to require any emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing, if required, shall be performed in accordance with Article XXI §2108.02 and Site Level Condition IV.13 above entitled “Emissions Testing.” (§2103.12.h.1)

**3. Monitoring Requirements:**

During operation of the cooling tower, the total dissolved solids concentration or conductivity of the cooling tower water shall be monitored daily, at a minimum. The cooling tower is considered in operation when the fans are operating and water is cascading over the trays. (Installation Permit #0056-I001c, condition V.B.3.)

**4. Record Keeping Requirements:**

- a. During operation of the cooling tower, the permittee shall keep and maintain records of total

dissolved solids concentration and/or conductivity daily for cooling tower CT-1: (§2103.12.h.1, §2103.12.a.2.B, Installation Permit #0056-I001c, condition V.B.4.)

- b. The permittee shall record all instances of non-compliance with the conditions of this permit and corrective action taken to restore compliance, upon occurrence. (§2103.12.h.1)
- c. All records shall be retained for at least five (5) years. The most recent two years of data shall be maintained onsite. The remaining records may be located off site and shall be made available to the Department upon request for inspection and/or copying within 5 business days. In the event a few onsite records requested by the Department cannot be produced onsite, the permittee may produce the record(s) within 5 business days. (§2103.12.j.2)

**5. Reporting Requirements:**

- a. The permittee shall report the following information to the Department in accordance with General Condition III.15 above. The reports shall contain all required information for the time period of the report: (§2103.12.k.1, Installation Permit #0056-I001c, condition V.C.5.)
  - 1) Weekly average total dissolved solids concentration and/or conductivity; and
  - 2) All instances of non-compliance with the conditions of this permit and corrective action taken to restore compliance.
- b. Reporting instances of non-compliance in accordance with condition V.C.5.a.2) above, does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.8 above, if appropriate. (§2103.12.k.1)

**6. Work Practice Standards:**

The permittee shall calibrate, maintain, and operate all instrumentation, process equipment, and control equipment according to manufacturers' recommendations and good engineering practices. (§2105.03)

***“PERMIT SHIELD” IN EFFECT.***



**D. Diesel Engines: Diesel Starter Engine (1A-DS) & Diesel Fire Pump (FP1)**

<b>Facility ID:</b>	1A-DS Diesel Starter Engine; FP1 Diesel Fire Pump
<b>Manufacturer/Model:</b>	Detroit Diesel Corporation/71257000; Cummins Diesel, Model No. NT-380-1F
<b>Max. Design Rate:</b>	460 hp; 285 hp
<b>Capacity:</b>	3,400,000 Btu/hr; 2,100,000 Btu/hr
<b>Primary Fuel:</b>	no. 2 fuel oil; <0.0015% sulfur
<b>Secondary Fuel:</b>	none
<b>Control Device(s):</b>	none
<b>Stack ID:</b>	DS001, FP001

**1. Restrictions:**

- a. The permittee shall use only diesel fuel that meets the following requirements: (§2103.12.a.2.B; §63.6604(b); §80.510(b))
  - 1) Sulfur content no higher than 0.0015% sulfur content (by weight) (15 ppm S); and
  - 2) A minimum cetane index of 40, or a maximum aromatic content of 35 volume percent.
- b. The Diesel Starter Engine and Diesel Fire Pump shall not be operated for more than 500 hours, including operation for maintenance checks and readiness testing, in any 12-month period. (§2103.12.a.2.B; §63.6640(f))
  - 1) Maintenance checks and readiness testing shall be limited to 100 hours per year.
  - 2) The Diesel Starter Engine and Diesel Fire Pump shall be allowed to operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided in Condition V.D.1.b.1) above.
- c. The permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. (§2103.12.a.2.B; §63.6625(h))
- d. Particulate matter emissions from the diesel starter engine shall not exceed 0.28 lb/MMBtu: (§2104.02.a.1.B)
- e. Particulate matter emissions from the diesel fire pump engine shall not exceed 0.28 lb/MMBtu: (§2104.02.a.1.B)

**2. Testing Requirements:**

The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Site Level Condition IV.13 above entitled "Emissions Testing." (§2103.12.h.1)

**3. Monitoring Requirements:**

The permittee shall operate and maintain the operation of a non-resettable hour on the Diesel Starter Engine and the Diesel Fire Pump. [§2103.12.a.2.B; §63.6625(f)]

**4. Record Keeping Requirements:**

- a. The permittee shall keep and maintain the following data: (§2103.12.j, §63.6655(f))
  - 1) Fuel consumption (daily, monthly, and 12-month), type of fuel consumed and suppliers' certification of sulfur content, and heating value;
  - 2) Cold starts (date, time and duration of each occurrence);
  - 3) Total operating hours, (hours/day, monthly and 12-month); and
  - 4) Records of operation, maintenance, inspection, calibration and/or replacement of combustion equipment.
- b. Records of diesel fuel certifications from fuel suppliers shall be maintained per shipment. Certifications shall include the name of the supplier and a statement from the supplier that the fuel complies with ASTM D975 "Standard Specifications for Diesel Fuel Oils." (§2103.12.j )
- c. The permittee shall record all instances of non-compliance with the conditions of this permit upon occurrence along with corrective action taken to restore compliance. (§2103.12.j )
- d. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying. (§2103.12.j )

**5. Reporting Requirements:**

- a. The permittee shall report the following information to the Department in accordance with General Condition III.15 above. The reports shall contain all required information for the time period of the report: (§2103.12.k.1)
  - 1) Monthly and 12-month data required to be recorded by condition V.D.4.a above;
  - 2) Cold start information; and
  - 3) Non-compliance information required to be recorded by V.D.4.c above.
- b. Reporting instances of non-compliance in accordance with condition V.D.5.a above does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.8 above, if appropriate. (§2103.12.k.1)

**6. Work Practice Standards:**

- a. The Diesel Starter Engine and Diesel Fire Pump shall be properly operated and maintained according to manufacturer's specifications. The manufacturer's operation and maintenance manuals shall be kept on site at all times. (§2103.12.a.2.B; §2105.03; §63.6605(b))
- b. The permittee shall perform the following maintenance on the Diesel Starter Engine and Diesel Fire Pump: (§2103.12.a.2.C; §63.6603(a), Table 2.d.4)
  - 1) Change oil and filter every 500 hours of operation or annually, whichever comes first;
  - 2) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
  - 3) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

- c. The permittee shall have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Condition V.D.6.b.1). (§63.6625(i))
  
- d. The permittee shall operate and maintain the Diesel Starter Engine and Diesel Fire Pump according to the manufacturer's emission-related written instructions or shall develop a maintenance plan. This plan shall provide to the extent practicable for the maintenance and operation of each generator in a manner consistent with good air pollution control practice for minimizing emissions. (§2103.12.a.2.C; §63.6625(e)(3))

**E. Aboveground Storage Tank: Aqueous Ammonia**

**Process Description:** Aqueous Ammonia AST  
**Facility ID:** T-001A  
**Capacity:** 20,500 gallons  
**Control Device:** Vapor balancing and bottom loading

**1. Restrictions:**

- a. Only aqueous ammonia shall be stored in tank T-001A at any time. (§2103.12.a.2.B)
- b. The storage tank shall not be loaded unless vapor balancing and bottom loading are in place and operating in accordance with manufacturers' specifications. (Installation Permit #0056-I001c, condition V.C.1.a)

**2. Testing Requirements:**

The Department reserves the right to require emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing, if required, shall be performed in accordance with Article XXI §2108.02 and Site Level Condition IV.13, entitled "Emissions Testing." (§2103.12.h.1)

**3. Monitoring Requirements:**

The storage tank shall be inspected monthly to assure structural integrity of tank and that no leaks are present. (Installation Permit #0056-I001c, condition V.C.3.a)

**4. Record Keeping Requirements:**

- a. The permittee shall keep and maintain the monthly throughput data and concentration of the aqueous ammonia stored data for the subject tank: (§2103.12.h.1, §2103.12.a.2.B, Installation Permit #0056-I001c, condition V.C.4.a)
- b. The permittee shall record all instances of non-compliance with the conditions of this permit upon occurrence along with corrective action taken to restore compliance. (§2102.04.b.6)
- c. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying. (§2102.04.b.6)

**5. Reporting Requirements:**

- a. The permittee shall report the following information to the Department in accordance with General Condition III.15 above. The reports shall contain all required information for the time period of the report: (§2103.12.k.1, Installation Permit #0056-I001c, condition V.C.5.a)
  - 1) Monthly throughput, and concentration of the aqueous ammonia stored; and
  - 2) All instances of non-compliance with the conditions of this permit and corrective action taken to restore compliance.

- b. Reporting instances of non-compliance in accordance with condition V.E.5.b does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.8 above, if appropriate. (§2103.12.k.1, §2102.04.b.6)

***“PERMIT SHIELD” IN EFFECT.***

## **VI. ALTERNATIVE OPERATING SCENARIOS**

There are no alternative operating scenarios for this facility.

**VII. MISCELLANEOUS**

The following table summarizes the processes and/or activities conducted at the Brunot Island Generating Station that were determined to be insignificant.

**TABLE VII-1**  
**Insignificant Processes**

I.D.	SOURCE DESCRIPTION	BASIS FOR EXEMPTION
T001	765,810 gallon No. 2 Fuel Oil AST	Source of minor significance, as per §2102.04.a
T002	765,810 gallon No. 2 Fuel Oil AST	Source of minor significance, as per §2102.04.a

**VIII. EMISSIONS LIMITATION SUMMARY**

*[This section is provided for informational purposes only and is not intended to be an applicable requirement.]*

The tons/year emission limitations for the Brunot Island Generating Station are summarized in the following table:

**TABLE VIII-1  
Emission Limitations**

<b>POLLUTANT</b>	<b>ANNUAL EMISSION LIMIT (tons/year)*</b>
PARTICULATE MATTER	102.6
PM10	102.6
PM2.5	102.6
NITROGEN OXIDES	336.7
SULFUR OXIDES	133.8
CARBON MONOXIDE	582.4
VOLATILE ORGANIC COMPOUNDS	43.1
FORMALDEHYDE	8.4
AMMONIA	183.9

\* A year is defined as any consecutive 12-month period.



**IX. APPENDIX A: ACID RAIN PERMIT**

**(ATTACHED)**