

217/782-2113

CONSTRUCTION PERMIT - NSPS - PSD - REVISED

PERMITTEE

Lincoln Generating Facility, LLC
Attn: Merle Churchill, Plant Manager
27150 South Kankakee Road
Manhattan, Illinois 60442

Application No.: 99020021

I.D. No.: 197811AAH

Applicant's Designation: ELECTRIGEN

Initial Date Received: December 21, 1999 Initial Date Issued: March 16, 2000

Date Revision Received: June 20, 2005 Date Revision Issued: January 13, 2009

Subject: Electric Generation Facility (8 SSCT/83 MW Each)

Location: 27150 South Kankakee Road, Manhattan, Will County

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of 8 gas fired combustion turbines and ancillary operations, as described in the above referenced application and summarized in Attachment A. This Permit is granted based upon and subject to the findings and special conditions which follow:

In conjunction with this permit, approval is given with respect to the Prevention of Significant Deterioration of Air Quality Regulations (PSD) to construct the above referenced project, in that the Illinois Environmental Protection Agency (Agency) finds that the application fulfills all applicable requirements of 40 CFR 52.21. This approval is issued pursuant to the Clean Air Act, as amended, 42 U.S.C. 7401 et. seq., the Federal regulations promulgated thereunder at 40 CFR 52.21 for Prevention of Significant Deterioration of Air Quality (PSD), and a Delegation of Authority agreement between the United States Environmental Protection Agency and the Illinois EPA for the administration of the PSD Program. This approval becomes effective in accordance with the provisions of 40 CFR 124.15 and may be appealed in accordance with the provisions of 40 CFR 124.19. This approval is also based upon and subject to the following findings and conditions which follow:

Findings For Revised Permit

1. Lincoln Generating Facility, LLC (LGF), formerly known as the Des Plaines Green Land Development, L.L.C. (DPGLD), has requested a revision to the construction permit for its natural gas fired electric generation facility. The facility has eight "simple cycle" combustion turbines (CT). The natural gas fired CTs have the ability to generate up to about 664 MW of electricity.
2. As compared to the original permit issued to DPGLD for the facility, this permit reflects the following significant changes:
 - i. Provisions for continued operation during malfunctions of emission units and/or monitoring systems added addressing the need for continued operation to prevent instability of the

regional electrical power system, risk of injury to personnel, or severe damage to equipment. (See Condition 4(b))

- ii. Added definitions of shutdown and normal operation to facilitate consistent implementation of operating and emission limitations for the turbines. (See Condition 4(c))
 - iii. Provisions to allow continuous emission monitoring for NOx in accordance with 40 CFR 75 to fulfill monitoring requirements of the NSPS for the turbines specifically allowed by new provisions of the NSPS. (See Condition 12(a))
3. The Illinois EPA has determined that the requested changes to the permit would still comply with all applicable Illinois Air Pollution Board Regulations and the federal Prevention of Significant Deterioration of Air Quality Regulations (PSD), 40 CFR 52.21.
 4. This permit continues to include conditions that were applicable to the initial startup of the source, e.g., Conditions 11 and 12(b). These actions are not required to be repeated in conjunction with the issuance of this revised permit.
 5. A copy of the application, the project summary and a draft of this permit were placed in a location in the vicinity of the project, and the public was given notice and an opportunity to examine this material and to submit comments and to request a public hearing on this matter.

The Illinois EPA is issuing approval to construct the proposed project subject to the following special conditions and consistent with the specifications and data included in the application. Any departure from the conditions of this approval or terms expressed in the application would need to receive prior written authorization from Illinois EPA.

Conditions

1. Standard conditions for issuance of construction permits, attached hereto and incorporated herein by reference, shall apply to this project, unless superseded by the following special conditions.
- 2a.
 - i. The turbines shall each be equipped, operated, and maintained with low NO_x combustors.
 - ii.
 - A. Operation of the turbine units (8 units) shall not exceed a combined total of 26,000 hours (average of 3,250 hours per unit installed) per year.
 - B. If at any time, the operation of an individual turbine exceeds 3,250 hours in a year, the Permittee shall demonstrate that operation of such turbine was consistent with its use as a peaking turbine, by making a detailed submittal of information to the Illinois EPA within 2 months that includes the following:
 1. The total hours that the turbine actually operated during such year and a summary of actual operating hours of the turbine for prior years.
 2. A description of the circumstances that contributed to actual operation for more than 3,250 hours in a year, with supporting documentation, including:
 - I. The circumstances with respect to the public demand for power, e.g., unusually cold or hot weather.
 - II. The circumstances with respect to unavailability of other turbines at the facility, e.g., unanticipated or extended outage of turbines.
 - III. The circumstances with respect to electric utility need for power, e.g., unexpected outages of major generating units or damage to power transmission systems.
 - IV. Other circumstances that the Permittee believes contributed to the operation of the turbine for more than 3,250 hours in a year.
 3. Further information to demonstrate that the above circumstances are uncommon or unlikely to reoccur so as to result in actual operation of the turbine for more than 3,250 hours in a year.
 - C. Prior to operation of an individual turbine for more than 3,250 hours in a year in a manner that is inconsistent with its use as a peaking turbine, the Permittee shall obtain a

revised permit allowing such operation pursuant to PSD, 40 CFR 52.21, which permit may establish additional requirements for turbine as are appropriate as Best Available Control Technology.

- D. For the purposes of this permit, peaking operation means operation when base load generating capacity is insufficient to meet electrical demand and operating reserve requirements, due to high demand, outage of base load generating units, restrictions or interruptions in the power grid, etc. It also includes operation of a unit for purposes of verifying unit availability for the above purposes. Compliance with this requirement shall be presumed for an individual turbine if it operates for no more than 3,250 hours per year.
- iii. A. The emissions of NO_x from each turbine shall not exceed 0.060 lb/million Btu heat input (LHV) on an hourly average during normal operation hereby defined as periods other than startup, low load operation, malfunction and shutdown as addressed by Condition 4.
- B. The emission of NO_x from each turbine shall not exceed 0.048 lb/million Btu heat input (LHV) on a monthly average for normal operation provided a turbine operates more than 250 hours in a month.
- C. The emission of NO_x from each turbine shall not exceed 0.0365 lb/million Btu heat input (LHV) on an annual average for normal operation.

These limits are equivalent to nominal NO_x emission rates of 15, 12 and 9 ppmv respectively at 15% O₂.

- b. The turbines shall be maintained and operated with good combustion practice to control emissions of CO, VOM and PM.
- 3a. The fuel heaters shall be equipped with low-NO_x burners designed to emit no more than 0.1 lb NO_x/million Btu heat input on an hourly average.
- b. The fuel heaters shall be maintained and operated with good combustion practice to control emissions of CO and PM.
- 4a. The gas turbines shall be operated in a manner consistent with good air pollution control practice to minimize emissions of NO_x during startup/low load operation, malfunction, and shutdown including the following:
 - i. Operation in accordance with the manufactures written instructions or other written instructions developed by the Permittee.

- ii. Review of operating parameters of a gas turbine during startup, malfunction, and breakdown, or shutdown as necessary to make adjustments to reduce or eliminate excess emissions.
- b.
- i. Upon malfunction of a combustion turbine(CT) that will result in NO_x emissions in excess of the limit in Condition 2(a)(iii)(A) (0.060 lb/million Btu, 1-hour average), the Permittee shall as soon as practicable cease excess emissions by repairing the affected CT or removing it from service.
 - ii. This requirement shall not apply to burner trips if the Permittee has maintained and operated a CT so that burner trips are not caused by poor maintenance or careless operation and in general are not reasonably preventable. (Burner trips are malfunction involving automatic switches of CT burners to diffusion mode from lean pre-mix operation, with accompanying drop in turbine output.)
 - iii. In addition, if the Permittee has maintained and operated a CT so that malfunctions are sudden, infrequent, not caused by poor maintenance or careless operation, and in general are not reasonably preventable, the Permittee shall expeditiously begin shutdown of the CT, unless the malfunction is expected to be readily repaired or such shutdown could threaten the stability of the regional electrical power system, or risk injury to personnel or severe damage to equipment. In such case, shutdown of the CT shall be undertaken when it is apparent that malfunction will not be readily repaired or shutdown would not endanger the regional power system, or would not risk injury to personnel or severe damage to equipment. In no case shall shutdown of a CT be delayed solely for the economic benefit of the Permittee. For this purpose, "readily repaired" means the cause of the malfunction and needed action(s) is/are apparent to the present staff at the plant and the malfunction can be fixed by such staff within an hour of the occurrence without getting help from off-site personnel.
 - iv. Notwithstanding the above, if the Permittee determines that the NO_x continuous emission monitoring system (CEMS) is inaccurately reporting excess NO_x emissions, the Permittee may continue operation provided the Permittee records the information it is relying upon to conclude that the CT is functioning properly and the CEMS is reporting inaccurate data and the Permittee takes prompt action to resolve the accuracy of the CEMS.
- c. For the purpose of these conditions:
- i. Startup/low load operation means turbines operating below 70% load with the burners in diffusion mode (rather than lean pre-mix operation).
 - ii. Shutdown means the period starting when an automated procedure directly leading to stopping operation of a turbine is initiated, until fuel is no longer combusted, provided that the procedure is not cancelled.

iii. Normal operation means operation other than startup, low load operation, malfunction, or shutdown.

Conditions 2, 3, and 4 represent the application of the Best Available Control Technology as required by Section 165 of the Clean Air Act.

- 5a. The gas turbines are subject to the New Source Performance Standard (NSPS) for Stationary Gas Turbines, 40 CFR 60, Subpart A and GG. The Illinois EPA is administrating NSPS in Illinois on behalf of the United States EPA under a delegation agreement.
- b. The NO_x emissions from each gas turbine shall not exceed the limit established by the NSPS, pursuant to 40 CFR 60.332 (a)(1).
- c. The emission from each gas turbine shall not contain SO₂ in excess of 0.015 percent by volume at 15 % O₂ and on a dry basis or the gas turbine shall not burn any fuel which contains sulfur in excess of 0.8 percent by weight, pursuant to 40 CFR 60.333 (a) and (b).
- d. At all times, the Permittee shall maintain and operate the gas turbines in a manner consistent with good air pollution control practice for minimizing emissions, pursuant to the NSPS, 40 CFR 60.11(d).
6. The emission of smoke or other particulate matter from a gas turbine or fuel heater shall not have an opacity greater than 30 percent, pursuant to 35 IAC 212.123(a), except as allowed by 35 IAC 201.149, 212.123(b) or 212.124.
7. The only fuels fired in the turbines shall be natural gas, as defined in 40 CFR 60.41c.
- 8a. Emissions from the turbines shall not exceed the limits in Attachment B, Table 1.
- b. Emissions of NO_x from the fuel heaters, in total, shall not exceed 1.7 lb/hr and 2.8 tons/yr.
- c. Emissions of NO_x from the fire water pump engine, shall not exceed 6.6 lb/hr and 1.7 tons/yr.
- 9a. This permit is issued based on VOM emissions from this new plant not being major so that nonattainment NSR (35 IAC Part 203) is not required.
- b. Compliance of the turbines with the annual VOM limit in Attachment B, Table 1 (24.0 tons/year) shall be determined by a running total of 365 days of daily emission data. The daily emission data shall be calculated from the product of the total hours turbine operated in a day, and the applicable hourly limit(s) in Attachment B, Table 1.
- c. VOM emissions from the new plant shall not exceed the limits in Attachment B, Table 2. These limits reflect limitations proposed by the Permittee in the permit application to assure that this project is not major for VOM emissions.

- 10a. Under this permit, each gas turbine may be operated for a period of up to 180 days from initial startup to allow for equipment shakedown and emissions testing as required. This period may be extended by the Illinois EPA upon request of the Permittee if additional time is needed to complete startup or perform emission testing.
- b. Upon successful completion of emission testing demonstrating compliance with applicable limitations, the Permittee may continue to operate the facility as allowed by Section 39.5 (5) of the Environmental Protection Act.
- c. This condition supercedes Standard Condition 6.
- 11a. Within 60 days after operating a gas turbine at the greatest load at which it will normally be operated but not later than 180 days after its initial startup, the Permittee shall perform emissions tests of gas turbines as follows. These tests shall be used as the initial compliance tests to demonstrate compliance with the limits and conditions set in this permit. Emissions shall be measured by an approved testing service during conditions which are representative of maximum emissions (peak load) for NO_x, CO, PM, VOM, and opacity and also at the minimum normal operating load, and two intermediate load levels for NO_x.
- b. The following USEPA methods and procedures shall be used for testing of emissions, unless another USEPA method is approved or specified by the Illinois EPA. For each turbine, measurement of NO_x and SO₂ emissions shall be conducted and data collected in accordance with the test methods and procedures specified in 40 CFR 60.335.

Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2
Flue Gas Weight	USEPA Method 3 or 3A
Moisture	USEPA Method 4
Particulate Matter	USEPA Method 5
Nitrogen Oxides	USEPA Method 20
Opacity	USEPA Method 9
Carbon Monoxide	USEPA Method 10
Volatile Organic Material	USEPA Method 18
PM ₁₀	USEPA Method 201 or 201A (40 CFR 51, Appendix M)

The Permittee may report all PM emissions measured by USEPA Method 5 as PM₁₀, including back half condensable particulate. If the Permittee reports USEPA Method 5 PM emissions as PM₁₀, testing using USEPA method 201 or 201A need not be preformed.

- c. At least 60 days prior to the actual date of testing, a written test plan shall be submitted to the Agency for review. This plan shall describe the specific procedures for testing and shall include as a minimum:
 - i. The person(s) who will be performing sampling and analysis and their experience with similar tests.

- ii. The specific conditions under which testing shall be performed including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the gas turbine will be tracked and recorded.
 - iii. The specific determinations of emissions that are intended to be made, including sampling and monitoring locations. As part of this plan, the Permittee may set forth a strategy for performing emission testing of selected turbines provided that all turbines are fitted for testing; the identity of the engines to be tested is determined immediately before testing, by the Illinois EPA or otherwise randomly; and continuous emission monitoring of NO_x is present on all turbines. The Permittee may also propose a plan for testing across the normal operating range of the turbines.
 - iv. The test method(s), which will be used, with the specific analysis method, if the method can be used with different analysis methods.
- d. The Illinois EPA shall be notified prior to these tests to enable the Illinois EPA to observe these tests. Notification for the expected date of testing shall be submitted a minimum of 30 days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of 5 working days prior to the actual date of the test. The Agency may at its discretion accept notifications with shorter advance notice provided that the Agency will not accept such notifications if it interferes with the Agency's ability to observe testing.
- e. Three copies of the Final Reports for these tests shall be forwarded to the Compliance Section in Springfield within 30 days after the test results are compiled and finalized, in advance of the operating permit application if necessary. The Final Report from testing shall contain a minimum:
- i. A summary of results.
 - ii. General information.
 - iii. Description of test method(s), including a description of sampling points, sampling train, analysis equipment, and test schedule.
 - iv. Detailed description of test conditions, including:
 - A. Fuel consumption (standard ft³).
 - B. Firing rate (million Btu/hour) based on lower heating value (LHV).
 - C. Turbine/generator output rate (MW).

- v. Data and calculations, including copies of all raw data sheets and records of laboratory analysis, sample calculations, and data on equipment calibration.
- f. Submittals and notification with respect to emissions testing shall be made to the following:
 - Illinois Environmental Protection Agency
Division of Air Pollution Control - Regional Office
9511 West Harrison
Des Plaines, Illinois 60016
 - Illinois Environmental Protection Agency
Division of Air Pollution Control, Compliance Section (#40)
P. O. Box 19276
Springfield, Illinois 62794-9276
 - Telephone 217/782-5811 Facsimile 217/782-6348
- 12a. The Permittee shall install, operate, and maintain a Continuous Emissions Monitoring (CEM) system to measure emissions of NO_x from each gas turbine in accordance with the Federal Acid Rain Program which CEMS shall also be used to demonstrate compliance with the NSPS Standard for NO_x and the NO_x limitations of this permit. As provided by 40 CFR 60.334(b)(3)(iii) and (c), these NO_x CEMS, which must be operated to meet the ongoing requirements of 40 CFR 75, may be used to meet monitoring requirements of the NSPS, except that periods of missing CEMS data are to be reported as monitoring downtime for the excess emissions and monitoring reports required by the NSPS, 40 CFR 60.7(c).
- b. At least 30 days prior to initial startup of a gas turbine, the Permittee shall submit to the Agency for review and comments a detailed plan describing the configuration and operation of the NO_x CEM system(s). The plan shall also state whether the Permittee is installing a SO₂ CEM system (40 CFR 75.11) rather than sulfur analysis and fuel flow monitoring equipment in accordance with 40 CFR 75.11(e).
- c. These CEMs shall be operational and collecting data in accordance with the provisions of the Acid Rain Program.
- 13a. The Permittee shall sample and analyze for sulfur content of the natural gas being fired in the gas turbines in accordance with 40 CFR 60.334(b) unless the Permittee has a custom schedule approved by the Illinois EPA, for the determination of these values based on the design and operation of the source and the characteristics of the fuel supply, this sampling and analysis shall occur on a monthly basis for natural gas.
- b. The Permittee shall also sample and analyze for the sulfur content of the fuel for the turbines in accordance with the Federal Acid Rain Program 40 CFR 75.11(e), unless it elects to install and operate CEMS for emission of SO₂ from the turbines.
- 14. The Permittee shall install, operate, and maintain monitors on each gas turbine to measure and record fuel consumption and maintain records.

- 15a. The Permittee shall maintain a file of the following items:
- i. The heat content (LHV) of the fuel fired in the turbines (Btu/standard ft³).
 - ii. The sulfur content of the fuel for the turbines in accordance with condition 13.
- b. The Permittee shall maintain the following daily records
- i. The quantity of natural gas consumed for each gas turbine (standard ft³).
 - ii. Operating hours for each turbine.
 - iii. Identification of each hour when a turbine is operated at less than 70% load or the ambient temperature is less than 45⁰ F, other than during start up, malfunction, or shutdown as addressed below in condition 15(d).
- c. The Permittee shall keep inspection, maintenance, and repair logs with dates and nature of such activities for the following:
- i. Each turbine.
 - ii. Each fuel heater.
 - iii. Fire water pump engine.
- d. The Permittee shall maintain following records related to startup, malfunction and breakdown, and shutdown of each gas turbine:
- i. The time and date of startup, malfunction or breakdown and shutdown of a gas turbine, and confirmation that standard practices were followed.
 - ii. Each incident when operation of a turbine continued during malfunction or breakdown with excess emissions, including the following information:
 - A. Date and duration of malfunction or breakdown.
 - B. A description of the malfunction or breakdown.
 - C. The reason continued operation was necessary, including supporting documentation.
 - D. The corrective actions used to reduce the quantity of emissions and the duration of the incident.
- e. The Permittee shall maintain records on a daily and monthly basis for the operating hours for each turbine.

- f. The Permittee shall keep the following records with regards to emissions:
 - i. NO_x emissions from each gas turbine recorded hourly, monthly, and annual (in lb/mmBtu (LHV) and lb or ton) by combining the NO_x concentration (in ppm) and diluent concentration (in percent O₂ or CO₂) measurements determined in accordance with Condition 12.
 - ii. Daily, monthly and annual emissions of VOM from the turbines determined in accordance with condition 9(b), with supporting calculations.
 - iii. Monthly emissions of CO, SO₂ and PM from the turbines (tons/month). Emissions of SO₂ shall be determined in accordance with condition 13. Emissions of CO and PM shall be calculated from fuel consumption data and factors developed from emission testing.
 - iv. Monthly emissions of NO_x, CO, SO₂, VOM, and PM from the fuel heater and fire water pump engine (ton/month). Emissions shall be calculated based on fuel consumption data and/or applicable emission factors.
 - v. Annual plant emissions of CO, SO₂, and PM, based on monthly emission totals.
- 16. All records required by this permit shall be retained on site for a period of at least 5 years and shall be made available for inspection and copying by the Illinois EPA upon request.
- 17a.
 - i. For each gas turbine, the Permittee shall fulfill applicable notification requirements of the NSPS, 40 CFR 60.7(a), including notifications for date of commencement of construction, and actual date of initial startup.
 - ii. With the notification of commencement of construction, the Permittee shall describe the actions that were and will be taken that constitute commencement of construction.
- b. The Permittee shall submit semi-annual progress reports to the Illinois EPA while construction is underway, which the reports shall describe for each turbine for which construction has been commenced, the accomplishments in the previous six months and the schedule of activities for the next six months.
- c. The Permittee shall promptly notify the Illinois EPA if construction of a particular gas turbine, once commenced, is discontinued or interrupted for a period of 18 months.
- 18a. If there is an exceedance of the requirements of Condition 2 through 9 of this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include a description of the exceedance, a

copy of relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.

- b. In conjunction with the Annual Emission Report required by 35 IAC Part 254, the Permittee shall provide:

The hours of operation for each simple cycle gas turbine.

- c. The Permittee shall comply with applicable reporting requirements under the Acid Rain Program, with a single copy of such report sent to Illinois EPA, Division of Air Pollution Control, Compliance Unit.

- 19a. Any required reports and notifications concerning equipment operation, emissions testing, or a monitoring system shall be sent to the Agency at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

Telephone: 217/782-5811 Fax: 217/782-6348

- b. A copy of all reports and notifications, as required above, except the Annual Emission Report required by 35 Ill. Adm. Code 254, shall also be sent to the Agency at the following address:

Illinois Environmental Protection Agency
Division of Air Pollution Control
9511 West Harrison
Des Plaines, Illinois 60016

Telephone: 847/294-4000 Fax: 847/294-4018

- 20a. Pursuant to 40 CFR 52.21(r)(2), this permit shall become invalid if construction is not commenced within 18 months after this permit becomes effective, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable period of time. The 18 month period may be extended by the Illinois EPA upon a satisfactory showing that an extension is justified. This condition supersedes Standard Condition 1.

- b. This permit shall become invalid as applied to a particular turbine unit if construction of such unit does not commence within 18 months after this permit becomes effective, if construction is discontinued for a period of 18 months or more, or if construction of the combustion turbine is not completed within a reasonable period of time. The 18 month period may be extended by the Illinois EPA upon a satisfactory showing from the Permittee that an extension is justified.

- c. For purposes of the above provisions, the definitions of "construction" and "commence" at 40 CFR 52.21 (b)(8) and (9) shall apply, which require that a source must enter into a binding agreement for on-site

construction or begin actual on-site construction. (Also see the definition of "begin actual construction," 40 CFR 52.21(b)(11))

21. This Permit for the above referenced project does not relieve the Permittee of the responsibility to comply with all Local, State and Federal Regulations which are part of the applicable Illinois State Implementation Plan, as well as all other applicable Federal, State, and Local requirements.

If you have any questions concerning this, please contact Manish Patel at 217/782-2113.

Edwin C. Bakowski, P.E.
Manager, Permit Section
Division of Air Pollution Control

Date Signed: _____

ECB:MNP:jws

cc: FOS - Region 1, Illinois EPA
CAAPP Permit Analyst, Illinois EPA

Attachment A

Emission Units

<u>Unit I.D.</u>	<u>Description</u>	<u>Number</u>	<u>Rated Heat Input¹ (mmBtu/Hr)</u>	<u>Rated Electrical Output¹ (MWe)</u>	<u>Control</u>
SCCT 1 - 8	Simple Cycle Gas Turbine	8	1000.5	83	Low NO _x Combustors
	Fuel Heaters	2	12.0	--	Low NO _x Burners
	Backup Diesel Fire Pump Engine	1	-----	--	None-

¹ Nominal ratings are based on lower heating value and are per unit.

Attachment B

Project Emissions (Ton/Yr)

<u>Pollutant</u>	<u>Potential Emissions</u>
CO	700.4
NO _x	423.9
PM/PM ₁₀	161.4
SO ₂	71.2
VOM	24.9

Table 1

Emission Limits for Turbines

<u>Pollutant</u>	<u>(Lb/mmBtu¹ (LHV))</u>	<u>(Lb/Hr²)</u>	<u>(Ton/Mo³)</u>	<u>(Ton/Yr³)</u>
NO _x	0.060	60.0	142.9	419.4
CO	0.054	53.7	265.5	698.5
PM/PM ₁₀	0.0139	14.0	41.7	160.8
VOM	0.00198	1.9	16.4	24.0
SO ₂	0.00619	6.2	18.5	70.7

¹ Heat input based emission limits are per unit and reflect vendor/manufacture data and information provided in the permit application. Notwithstanding the above limits, if ambient temperature is 45°F or less, CO and VOM emission shall not exceed 0.089 and 0.00549 lb/mmBtu (LHV), respectively. These heat input based limits do not apply during startup/low load operation, malfunction or shutdown as addressed by Condition 4.

² Hourly emission limits based on modeling data and information provided in the permit application. Operating the turbines in warmer weather results in lower generator output with accompanying lower emissions. Notwithstanding the above, if ambient temperature is 45°F or less, CO and VOM emission shall not exceed 89.2 and 5.5 lb/hour, respectively, and for periods other than normal operation, emissions of NO_x shall not exceed 80.0 lb/hour. If the applicable limits of CO and VOM are not met by a turbine, it shall also be presumed to constitute failure to use good combustion practice as required by Condition 2(b), as well as an exceedance of Condition 8(a).

³ Monthly and annual limits apply to the total of all turbines. The annual limits reflect 26,000 total turbine operating hours considering 3,250 hours of operation for each turbine.

Table 2

Project Emissions (Ton/Yr)

<u>Unit</u>	<u>NO_x</u>	<u>CO</u>	<u>PM</u>	<u>VOM</u>	<u>SO₂</u>
Turbines	419.4	698.5	160.8	24.0	70.7
Gas-Fired Heaters	2.8	1.4	0.3	0.7	0.2
Backup Diesel Fire Pump Engine	1.7	0.5	0.3	0.1	0.3
Fugitive VOM				0.1	
Totals:	423.9	700.4	161.4	24.9	71.2

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