

217/782-2113

CONSTRUCTION PERMIT - PSD APPROVAL - NSPS SOURCE

PERMITTEE

Duke Energy Lee, LLC  
Attn.: Pamela G. Zaheri, Project Manager  
5400 Westheimer Court  
Houston, Texas 77056

Application No: 99090029

I.D. No.: 103817AAH

Applicants Designation: LEE

Date Received: September 13, 1999

Subject: Electric Generation Facility (8 SSCT/80 MW each)

Date Issued: March 31, 2000

Location: Nachusa Road, South Dixon Township, Lee County

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of eight gas fired combustion turbines, four fuel oil storage tanks, and one emergency fire-water pump diesel fired engine 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 (Illinois EPA) 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

1. Duke Energy Lee, LLC (Duke Energy) has requested a permit for an electric generation facility that would include eight "simple cycle" gas turbines (CT). The facility would have the ability to generate up to about 640 MW (nominal) of electrical energy. The facility would be fired on natural gas as its primary fuel with capability to fire low-sulfur distillate oil as a backup fuel.
2. The project would be constructed on a 57-acre parcel of property located approximately ½ miles southwest of the Village of Nachusa, in Lee

County. The area is currently designated attainment for all criteria pollutants.

- 3a. The proposed project has the potential to emit major amounts of Nitrogen Oxides (NO<sub>x</sub>), Sulfur Dioxide (SO<sub>2</sub>), Particulate Matter (PM/PM<sub>10</sub>), and Carbon Monoxide (CO). The project is therefore subject to PSD review for NO<sub>x</sub>, CO, SO<sub>2</sub> and PM/PM<sub>10</sub>. Potential emissions of the pollutants from the project are shown in Attachment B.
- b. The proposed project has annual emissions of hazardous air pollutants that will be less than 10 tons of any hazardous pollutant and less than 25 tons in aggregate for any combination of hazardous air pollutants, as indirectly addressed by limits on emissions of criteria pollutants. Therefore, the project is not subject to review under Section 112(g) of the Clean Air Act.
4. After reviewing the materials submitted by Duke Energy, the Illinois EPA has determined that the project will (i) comply with applicable Board emission standards (ii) comply with applicable federal emission standards and (iii) utilize Best Available Control Technology (BACT) on emissions of NO<sub>x</sub>, CO, SO<sub>2</sub> and PM/PM<sub>10</sub>.
5. The gas turbines are affected units under the Acid Rain Deposition Control Program pursuant to Title IV of the Clean Air Act and are subject to certain control requirements and emissions monitoring requirements pursuant to 40 CFR Parts 72, 73 and 75. As affected units under the Acid Rain Program, Duke Energy must also obtain an Acid Rain Permit before commencing operation.
6. The air quality analysis submitted by Duke Energy and reviewed by the Illinois EPA shows that the proposed project will not cause violations of the ambient air quality standard for NO<sub>x</sub>, CO, SO<sub>2</sub> and PM/PM<sub>10</sub>. The analysis shows that project will have an insignificant impact on the ambient air quality standards.
7. The Illinois EPA has determined that the proposed project complies with all applicable Illinois Air Pollution Board Regulations and the federal Prevention of Significant Deterioration of Air Quality Regulations (PSD), 40 CFR 52.21.
8. A copy of the application and the Illinois EPA's formal review of the application 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 by 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. The turbines shall each be equipped, operated, and maintained with low NO<sub>x</sub> combustors for natural gas firing and water injection (WI) for oil firing.
- b.
  - i. The emissions of NO<sub>x</sub> from each CT when firing natural gas shall not exceed 15 ppmvd @ 15% O<sub>2</sub> on an hourly average, except during periods of startup and shut down as addressed by Condition 3.
  - ii. The emission of NO<sub>x</sub> from each CT when firing natural gas shall not exceed 12 ppmvd @ 15% O<sub>2</sub> on an annual average.
- c. The emissions of NO<sub>x</sub> from the CT when firing backup fuel shall not exceed 42 ppmvd @ 15% O<sub>2</sub> on an hourly average.
- d.
  - i. Operation of the CT units (8 units) shall not exceed a combined total of 20,000 hours per year and 2,500 hours per year per unit.
  - ii. Backup fuel operation of the CT units (8 units) shall not exceed a combined total of 4,000 hours per year and 500 hours per year per unit.
  - iii. Notwithstanding the above, for periods of extended unit outages or unexpected outages during high electrical demand, each of the remaining units at the facility may exceed the 2,500 hour per year per turbine limit above but no greater than 4,000 hours per year, if the Permittee demonstrates that operation of such turbine was consistent with its use as a peaking turbine and the combined total limit above is not exceeded. The Permittee shall submit detail information to the Illinois EPA within two months after a turbine exceed the annual limit, that includes the following:
    - A. The total hours that the turbine actually operated during such year, estimated operating hours, and a summary of actual operating hours of the turbine for the previous five years;
    - B. A description of the circumstances that contributed to actual operation for more than 2,500 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 reason for 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; and

IV. Other circumstances that the Permittee believes contributed to the operation of the turbine for more than 2,500 hours in a year;

C. 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 2,500 hours in a year.

iv. Prior to operation of individual turbines in a manner that is inconsistent with the use of the source as a peaking facility, as described by the conditions of this permit, the Permittee shall obtain a revised permit allowing such operation pursuant to PSD, 40 CFR 52.21, which permit may establish additional requirements as are appropriate as Best Available Control Technology.

e. The CT's shall be maintained and operated with good combustion practice to control emissions of CO and PM. (See Table 1A)

f. The CT's shall not be fired with distillate oil with a sulfur content greater than 0.05% by weight.

Condition 2 represents the application of the Best Available Control Technology as required by Section 165 of the Clean Air Act.

3. Each turbine shall be operated in a manner consistent with good air pollution control practice to minimize emissions during startup, and shutdown including:

a. Operation in accordance with the manufacturer's written instructions or other written instructions developed and maintained by the Permittee, which shall include at a minimum the following measures:

Review of operating parameters of the unit during startup, or shutdown as necessary to make adjustments to reduce or eliminate excess emissions;

b. Maintenance of the turbine in accordance with written procedures developed and maintained by the Permittee, these procedures shall be reviewed at least annually.

4a. 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.

i. The NO<sub>x</sub> emissions from each CT shall not exceed the limit established by the NSPS, pursuant to 40 CFR 60.332 (a)(1).

ii. The emission from each CT shall not contain SO<sub>2</sub> in excess of 0.015 percent by volume at 15 % O<sub>2</sub> and on a dry basis or the CT 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).

- b. The four fuel oil storage tanks are subject to the New Source Performance Standard (NSPS) for storage vessels, 40 CFR 60, Subpart A and Kb. The Illinois EPA is administrating NSPS in Illinois on behalf of the United States EPA under a delegation agreement.
- c. 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).
- 5. The emission of smoke or other particulate matter from a CT 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.
- 6. Emissions from the turbines shall not exceed the limits in Table 1A and 1B.
- 7a. The only fuels fired in the CT shall be natural gas or distillate oil, as defined in 40 CFR 60.41c.
- b. If backup fuel is burned in a CT for more than 100 hours in a calendar year, the Permittee shall perform representative testing of emissions with such fuel in accordance with Condition 10, unless such testing is waived by the Illinois EPA.
- c. Backup fuel shall only be used as an emergency fuel between May 1 and September 30 of each year.
- d. For the purpose of this permit, emergency fuel is backup fuel fired only during circumstances that make it impossible to fire natural gas, i.e., natural gas supply curtailment or breakdown of delivery systems.
- 8a. After initial startup, commissioning and shakedown are completed, the CT shall only be operated for electrical generation during peak demand periods or for purpose of evaluating or verifying operation, or emissions testing.
- b. For the purposes of this permit, peaking operation means operation when base load generation 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. Peaking operation may include operation of a turbine to meet electrical demand from utilities other than the local utility. The facility shall be assumed to be in compliance with this condition if the turbines comply with the time limits set elsewhere in this permit.
- 9a. Under this permit, each CT 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.
- 10a. Within 60 days after operating a CT 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<sub>x</sub>, CO, PM, VOM, and opacity and also at the minimum normal operating load, and two intermediate load levels for NO<sub>x</sub>.
- 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 CT, measurement of NO<sub>x</sub> and SO<sub>2</sub> 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 <sup>1</sup>	USEPA Method 5
Nitrogen Oxides	USEPA Method 20
Opacity	USEPA Method 9
Carbon Monoxide	USEPA Method 10
Volatile Organic Material <sup>2</sup>	USEPA Method 18
PM10	USEPA Method 201 or 201A (40 CFR 51, Appendix M)

- 1. The Permittee may report all PM emissions measured by USEPA Method 5 as PM<sub>10</sub>, including back half condensable particulate. If the Permittee reports USEPA Method 5 PM emissions as PM<sub>10</sub>, testing using USEPA method 201 or 201A need not be preformed.
  - 2. The Permittee shall also provide results for organic hazardous air pollutants in VOM, e.g., formaldehyde, toluene, acetaldehyde, and acrolein, as measured by Method 18.
- c. At least 60 days prior to the actual date of testing, a written test plan shall be submitted to the Illinois EPA 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 CT 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<sub>x</sub> 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 of 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 Illinois EPA may at its discretion accept notifications with shorter advance notice provided that the Illinois EPA will not accept such notifications if it interferes with the Illinois EPA'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 ft<sup>3</sup> or gallons);
    - B. Firing rate (million Btu/hr); and
    - 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  
5415 N. University  
Peoria, Illinois 61614  
Telephone: 309/693-5467

Illinois Environmental Protection Agency  
Emission Monitoring and Testing Unit  
P. O. Box 19276  
Springfield, Illinois 62794-9276

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

- 11a. The Permittee shall install, operate, and maintain a Continuous Emissions Monitoring (CEM) system to measure emissions of NO<sub>x</sub> from each CT in accordance with the Federal Acid Rain Program which CEMS shall also be used to demonstrate compliance with the limitations of this permit.
  - b.
    - i. The procedures under 40 CFR 60.13 and 75.12 and 40 CFR 75, Appendix F shall be followed for the installation, evaluation, and operation these CEM systems.
    - ii. At least 30 days prior to initial startup of a CT, the Permittee shall submit to the Illinois EPA for review and comments a detailed plan describing the configuration and operation of the NO<sub>x</sub> CEM system(s). The plan shall also state whether the Permittee is complying with the alternative monitoring requirements for SO<sub>2</sub>, i.e., sulfur analysis and flow monitoring.
  - c. These CEMs shall be operational and collecting data in accordance with the provisions of the Acid Rain Program.
- 12a. The Permittee shall monitor sulfur content of the gas fired in the turbines pursuant to the applicable provisions in 40 CFR Part 75, Appendix D, Section 2.3 for pipeline natural gas combustion.
  - b. Monitoring of fuel nitrogen content is not required while pipeline quality natural gas, as defined in 40 CFR 72.2, is the only fuel fired in the gas turbine.
  - c. The above provisions establish a custom schedule for determination of sulfur content and nitrogen content of the natural gas in accordance with 40 CFR 60.13(i), 40 CFR 60.334 (b)(2) and USEPA's Custom Fuel Monitoring Document dated August 14, 1987.

- 13a. The Permittee shall sample and analyze for sulfur content of the backup fuel being fired in the gas turbines in accordance with 40 CFR 60.334(b).
- 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(d)(2), unless it elects to install and operate CEMS for emission of SO<sub>2</sub> from the turbines.
14. The Permittee shall install, operate, and maintain monitors on each gas CT to measure and record fuel consumption and maintain records.
- 15a. The Permittee shall maintain a file of the following items:
  - i. The heat content of the fuel fired in the turbines (Btu/standard ft<sup>3</sup>, Btu/gallon);
  - ii. The sulfur content of the fuel for the turbines in accordance with condition 12 or 13.;
- b. The Permittee shall maintain the following daily records:
  - i. The quantity and type of fuel consumed for each CT (standard ft<sup>3</sup> or gallon);
  - ii. Operating hours for each CT.
- c. The Permittee shall keep inspection, maintenance, and repair logs with dates and nature for each CT.
- d. The Permittee shall maintain records related to use of backup fuel as follows:
  - i. Operating hours for each CT with backup fuel, with explanation why backup fuel is needed;
  - ii. Sulfur content of fuel (weight %).
- f. The Permittee shall keep the following records with regards to emissions:
  - i. NO<sub>x</sub> emissions from each CT recorded hourly and annual (in lb/mmBtu and lb or ton) by combining the NO<sub>x</sub> concentration (in ppm) and diluent concentration (in percent O<sub>2</sub> or CO<sub>2</sub>) measurements according to the procedures in 40 CFR 75 Appendix F;
  - ii. Monthly emissions of NO<sub>x</sub>, VOM, CO, SO<sub>2</sub> and PM from the turbines (tons/month). NO<sub>x</sub> emissions shall be based on data from the CEM. Emissions of SO<sub>2</sub> shall be determined in accordance with condition 12 or 13. Emissions of CO, VOM and PM shall be calculated from fuel consumption data and factors developed from emission testing or other methods approved by the Illinois EPA.

- iii. Annual plant emissions of NO<sub>x</sub>, VOM, CO, SO<sub>2</sub>, and PM, based on monthly emission totals;
  - g. The Permittee shall maintain a permanent file of the following items for the life of each emission unit:
    - i. Date a turbine is fully operational;
    - ii. Records showing the dimensions of the fuel oil storage tanks and an analysis showing the capacity of the storage tanks.
  - h. The Permittee shall maintain the following records related to startup and shutdown of each turbine:

The time and date of startup and shutdown of a turbine, and confirmation that standard practices were followed;
  - i. The Permittee shall retain a copy of the information that is required by Condition 2(d)(iii).
16. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three years from the date of entry and shall be available for inspection and copying by the Illinois EPA upon request. Any record retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA request for records during the course of a source inspection.
- 17a. For each CT, 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. With the notification for commencement of construction, the Permittee shall provide a copy of the manufacturer's guarantee for emissions.
- b. The Permittee shall submit semi-annual progress reports to the Illinois EPA while construction is underway, which the reports shall describe for each CT 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 CT, once commenced, is discontinued or interrupted for a period of 18 months.
  - d. If the backup fuel is used in a CT for more than 100 hours in a calendar year, the Permittee shall notify the Illinois EPA within 30 days
- 18a. If there is an exceedance of the requirements of Condition 2 through 6 of this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Unit 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:
    - i. For each CT the total operating hours and the operating hours while firing backup fuel;
    - ii. A review of the use of each turbine and the facility as a whole to confirm that they were used for peaking operation.
  - 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 Illinois EPA at the following address unless otherwise indicated:

Illinois Environmental Protection Agency (40-CASM)  
Division of Air Pollution Control, Compliance Unit  
P.O. Box 19276  
Springfield, Illinois 62794-9276  
Telephone: 217/782-5811                      Fax: 217/524-4710

- 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 Illinois EPA at the following address:
    - Illinois Environmental Protection Agency
    - Division of Air Pollution Control
    - 5415 N. University
    - Peoria, Illinois 61614
    - Telephone: 309/693-5467
- 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. 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 Troy Poorman at 217/782-2113.

Donald E. Sutton, P.E.  
Manager, Permit Section  
Division of Air Pollution Control

DES:TDP

CC: Region 2  
FOIA

Attachment A

Emission Units

<u>Unit ID</u>	<u>Description</u>	<u>Number</u>	<u>Rated Heat Input<sup>1</sup> (mmBtu/hr)</u>	<u>Rated Electrical Output<sup>1</sup> (MWe)</u>	<u>Control</u>
1 - 8	Simple cycle gas turbine	8	985 <sup>(2)</sup> 1,163 <sup>(3)</sup>	80	Low NO <sub>x</sub> combustors
9	Emergency fire Pump engine	1	1.6	--	None

1. Nominal ratings are per unit.
2. Natural gas firing (HHV @ 100% load and 49 °F)
3. Backup fuel firing (HHV @ 100% load and -26 °F)

Attachment B

Project Emissions (ton/yr)

<u>Unit</u>	<u>NO<sub>x</sub></u>	<u>CO</u>	<u>PM</u>	<u>VOM</u>	<u>SO<sub>2</sub></u>
Turbines	732.1	539.7	120.0	36.4	166.5
Startup/shut down	1.68	9.44	--	0.24	--
Emergency fire pump engine	1.3	0.3	0.03	0.02	0.02
Storage tanks	--	--	--	2.0	--
Fugitive	--	--	2.0	--	--
Totals:	735.1	549.4	122.0	38.7	166.5

Table 1A

Emission Limits for Each CT

<u>Pollutant</u>	<u>Natural Gas</u>		<u>Fuel oil</u>	
	<u>lb/mmBtu<sup>1</sup></u>	<u>lb/hr<sup>2</sup></u>	<u>lb/mmBtu<sup>1</sup></u>	<u>lb/hr<sup>2</sup></u>
NO <sub>x</sub>	0.06	54.0	0.17	194.0
CO	0.055	54.0	0.045	49.0
PM/PM <sub>10</sub>	0.016	10.0	0.036	20.0
VOM	0.005	1.8	0.01	11.0
SO <sub>2</sub>	0.006	5.6	0.05	60.72

Emission limits are per unit

1. Limits based on vendor/manufacture data and information provided in the permit application.
2. Limits based on modeling data and information provided in the permit application. If the applicable limits for CO or PM/PM<sub>10</sub> are not met by a turbine, it shall also be presumed to constitute failure to use good combustion practice as required by Condition 2(e), as well as an exceedance of Condition 6.

Table 1B

Annual Emissions (ton/yr) for CT's

<u>Pollutant</u>	<u>Contribution (Each)</u>		<u>Natural gas Limit (Total)<sup>1</sup></u>	<u>Fuel oil Limit (Total)<sup>2</sup></u>
	<u>Natural gas</u>	<u>Fuel Oil</u>		
NO <sub>x</sub>	53.8	48.5	430.2	388.0
CO	67.5	12.2	540.0	98.0
PM/PM <sub>10</sub>	12.5	5.0	100.0	40.0
VOM	2.3	2.8	18.0	22.0
SO <sub>2</sub>	7.0	15.2	56.4	121.4

1. The annual limits for NO<sub>x</sub>, PM/PM<sub>10</sub>, VOM, and SO<sub>2</sub> are based on 2,500 hours/year operation at the hourly emission rate from Table 1A and a maximum of eight CT's and does not include emissions from startup or shut down.
2. The annual limits for NO<sub>x</sub>, PM/PM<sub>10</sub>, and SO<sub>2</sub> are based on 500 hours/year of operation at the hourly emission rate from Table 1A and a maximum of eight CT's.

Note: Condition 2 (b) limits operation of each unit to 2,500 hours per year and 500 hours per year on backup fuel. Therefore, as backup fuel operating hours increase natural gas usage decreases on an annual basis.