



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL MODIFICATION
CUYAHOGA COUNTY**

CERTIFIED MAIL

Street Address:

122 S. Front Street

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:
Lazarus Gov. Center
P.O. Box 1049

Application No: 13-03653

Fac ID: 1318008238

DATE: 10/27/2005

American Municipal Power Ohio Cleveland
Randy Meyer
2600 Airport Drive
Columbus, OH 43219

Enclosed Please find a modification to the Ohio EPA Permit To Install referenced above which will modify the terms and conditions.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, Ohio 43215

Sincerely,

Michael W. Ahern, Manager
Permit Issuance and Data Management Section
Division of Air Pollution Control

CC: USEPA

CLAA



**Permit To Install
Terms and Conditions**

**Issue Date: 10/27/2005
Effective Date: 10/27/2005**

FINAL ADMINISTRATIVE MODIFICATION OF PERMIT TO INSTALL 13-03653

Application Number: 13-03653
Facility ID: 1318008238
Permit Fee: **\$1200**
Name of Facility: American Municipal Power Ohio Cleveland
Person to Contact: Randy Meyer
Address: 2600 Airport Drive
Columbus, OH 43219

Location of proposed air contaminant source(s) [emissions unit(s)]:
**13611 Aspinwall Avenue
Cleveland, Ohio**

Description of proposed emissions unit(s):
**Modification to PTI to adjust fuel consumption and heat input values at six diesel generators --
P001 - P006.**

The above named entity is hereby granted a modification to the permit to install described above pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this modification does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described source(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans included in the application, the above described source(s) of pollutants will be granted the necessary operating permits.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Part I - GENERAL TERMS AND CONDITIONS

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

3. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon

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the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

6. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

7. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

8. Termination of Permit to Install

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

9. Construction of New Sources(s)

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The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

10. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

11. Applicability

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

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12. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

13. Source Operation and Operating Permit Requirements After Completion of Construction

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the emissions unit(s) covered by this permit.

14. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

15. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit to Install fees within 30 days after the issuance of this Permit to Install.

B. Permit to Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

**SUMMARY (for informational purposes only)
 TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

<u>Pollutant</u>	<u>Tons Per Year</u>
PM	2.28
SOx	1.86
CO	6.78
NOx	88.2

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TOC

2.76

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PTI A

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Emissions Unit ID: P001

PART II - SPECI

AL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
P001 - 20.02 MMBTU/hr Diesel Generator. Caterpillar Model 3516B/2628 BHP.	OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-11(B)(5)(b)
MODIFIED This PTI supercedes PTI 13-03653 issued on July 11, 2000		OAC rule 3745-18-06(G)
		OAC rule 3745-17-07(A)
		OAC rule 3745-31-05(D)

Applicable Emissions
Limitations/Control Measures

NOx emissions from this emissions unit shall not exceed 49.00 lbs/hr and 14.7 TPY.

CO emissions from this emissions unit shall not exceed 3.77 lbs/hr and 1.13 TPY.

Total Organic Compound (TOC) emissions from this emissions unit shall not exceed 1.54 lbs/hr and 0.46 TPY.

Particulate emissions from this emissions unit shall not exceed 1.25 lbs/hr and 0.38 TPY.

Sulfur dioxide emissions from this emissions unit shall not exceed 0.050 lb/mmBtu actual heat input, 1.01 lbs/hr and 0.31 TPY.

The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-11(B)(5)(b) and 3745-17-07(A).

Particulate emissions shall not exceed 0.062 lb/MMBTU actual heat input.

This emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).

Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed twenty (20) percent opacity, as a six-minute average, except for a period of not more than six (6) consecutive minutes in any sixty-minute period.

Annual NOx emissions for facility--See terms A.2.a., B.2 and B.3.

Modification Issued: 10/27/2005**2. Additional Terms and Conditions**

- 2.a** The total annual emissions of NO_x from all emissions units at this facility (P001, P002, P003, P004, P005 and P006) shall be limited to 88.2 tons, as a rolling 12-month summation. This annual facility NO_x emission limitation shall be achieved by restricting both the maximum quantity of diesel fuel burned (#2 oil) and the maximum annual hours of operation for these emissions units as indicated in section B.

B. Operational Restrictions

1. The quality of the oil burned in this emissions unit shall meet, on an "as received" basis, a sulfur content which is sufficient to comply with the allowable sulfur dioxide emissions limitation of 0.05 pounds SO₂/ MMBTU of actual heat output.
2. The operation of the emission unit P001 (i.e., the firing of the engine with diesel fuel (#2 oil) accompanied by the generation of electricity) shall be limited to no more than 600 hours per year, based on a rolling, 12-month summation of operating hours.
3. The maximum quantity of diesel fuel which may be burned in emission unit P001 shall not exceed 85,800 gallons per year based on a rolling 12-month summation of fuel usage.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information:
 - a. the total volume (in gallons) of low sulfur No. 2 diesel fuel burned in emissions unit P001;
 - b. the total hours of operation of emission unit P001;
 - c. the rolling, 12-month summation of the operating hours ; and
 - d. the rolling, 12-month summation of diesel fuel usage.
2. The permittee shall calculate and record, on a monthly basis, the total emissions of NO_x, CO, SO₂, PM, and total organic compound emissions for emission unit P001, utilizing methods of calculation specified in section E of these terms and conditions.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of both the rolling, 12-month fuel usage limitation and the rolling, 12-month operating hours restriction. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).
2. The permittee shall submit an annual report which summarizes the following information:
 - a. the monthly and annual volume (in gallons) of low sulfur diesel fuel burned in emission unit P001;
 - b. the total monthly and annual hours of operation of emission unit P001;
 - c. the total annual emissions of NO_x, CO, PM, SO₂, and total organic compounds from emission unit P001 for the previous calendar year ; and
 - d. the total annual emissions of NO_x, CO, PM, SO₂, and total organic compounds from all emissions units (P001, P002, P003, P004, P005, & P006) collectively for the previous calendar year.

This reports shall be submitted by January 31 of each year for operations during the previous calendar year.

E. Testing Requirements

1. Compliance with the emission limitations in section A.1. of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emissions Limitation: NO_x emissions from each emissions unit shall not exceed 49.00 lbs/hr and 14.7 TPY; NO_x emissions from this facility (emissions units P001, P002, P003, P004, P005, & P006) shall not exceed 88.2 TPY

Applicable Compliance Method: Compliance shall be based on calculations using the rated horsepower of each emissions unit, the hours of operation recorded above, and the manufacturer's emissions factor specified below with the following equation:

$$ER(\text{HOURLY}) = \text{HP} \times \text{Ef} \times 1/453.6, \text{ and}$$

$$ER(\text{ANNUAL}) = \text{HP} \times \text{Ef} \times 1/453.6 \times A \times 1/2000.$$

Where:

HP = Rated horsepower of each engine,

Ef = Emissions factor for engine in grams/horsepower-hour (8.23 grams NO_x/HP-HR),

A = Annual hours of engine operation.

Annual emissions for the facility (P001, P002, P003, P004, P005, & P006 collectively) shall simply be the annual emissions for each engine multiplied by six. If required pursuant to OAC rule 3745-15-04, the permittee shall demonstrate compliance with the NO_x emissions limits of this permit by means of physical testing of the effluent from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, "Standards of Performance for New Stationary Sources", Appendix A, Method 7 or 7E.

- b. Emissions Limitation: Carbon monoxide emissions from each emissions unit shall not exceed 3.77 lbs/hr and 1.13 TPY.

Applicable Compliance Method: Compliance shall be based on calculations utilizing emissions factors specified in U.S. EPA document AP-42, 5th Edition, "Compilation of Air Pollution Emissions Factors", section 3.4, table 3.4-1 (10/96), the maximum rated horsepower (or heat rate) for each engine, and the hours of operation of this emissions unit as recorded above. If required pursuant to OAC rule 3745-15-04, the permittee shall demonstrate compliance with the CO emissions limits of this permit by means of physical testing of the effluent from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, "Standards of Performance for New Stationary Sources", Appendix A, Method 10.

- c. Emissions Limitation: Total organic compound emissions from each emissions unit shall not exceed 1.54 lbs/hr and 0.46 TPY.

Applicable Compliance Method: Compliance shall be based on calculations utilizing emissions factors specified in U.S. EPA document AP-42, 5th Edition, "Compilation of Air Pollution Emissions Factors", section 3.4, table 3.4-1 (10/96), the maximum rated horsepower (or heat rate) for each engine, and the hours of operation of this emissions unit as recorded above.

- d. Emissions Limitation: Particulate emissions from each emissions unit shall not exceed 0.062 lb/MMBtu of actual heat input, 1.25 lbs/hr and 0.38 TPY.

Applicable Compliance Method: Compliance shall be based on calculations utilizing emissions factors specified in U.S. EPA document AP-42, 5th Edition, "Compilation of Air Pollution Emissions Factors", section 3.4, table 3.4-1 (10/96), the maximum rated horsepower (or heat rate) for each engine, and the hours of operation of this emissions unit as recorded above. If required pursuant to OAC rule 3745-15-04, the permittee shall demonstrate compliance with the particulate emissions limits of this permit by means of physical testing of the effluent from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, "Standards of Performance for New Stationary Sources", Appendix A, Method 5, and OAC rule 3745-17-03(B)(7).

- e. Emissions Limitation: Sulfur dioxide emissions from each emissions unit shall not exceed 0.050 lb/MMBtu of actual heat input, 1.01 lbs/hr and 0.31 TPY.

Applicable Compliance Method: Compliance shall be based on calculations utilizing emissions factors specified in U.S. EPA document AP-42, 5th Edition, "Compilation of Air Pollution Emissions Factors", section 3.4, table 3.4-1 (10/96), the maximum rated horsepower (or heat rate) for each engine, and the hours of operation of this emissions unit as recorded above. If required pursuant to OAC rule 3745-15-04, the permittee shall demonstrate compliance with the sulfur dioxide emissions limits of this permit by means of physical testing of the effluent from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, "Standards of Performance for New Stationary Sources", Appendix A, Method 6, and in OAC rule 3745-18-04.

- f. Emissions Limitation: Visible particulate emissions from the exhaust stack serving each emissions unit shall not exceed twenty (20) percent opacity, as a six-minute average, except for a period of not more than six (6) consecutive minutes in any sixty-minute period.

Applicable Compliance Method: Compliance shall be determined through visible

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Emissions Unit ID: **P001**

emissions observations in accordance with test procedures specified in 40 CFR Part 60, Method 9, and in OAC rule 3745-17-03(B)(1).

F. Miscellaneous Requirements

1. The following terms and conditions in this permit-to-install are federally enforceable:
A.2.a, B.2, B.3, , C.1,C.2,,D.1 and D.2.

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PTI A

Emissions Unit ID: P002

Modification Issued: 10/27/2005

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	OAC rule 3745-17-11(B)(5)(b)
P002 - 20.02 MMBtu/hr Diesel Generator. Caterpillar Model 3516B/2628 BHP.	OAC rule 3745-31-05(A)(3)	OAC rule 3745-18-06(G)
MODIFIED		
This PTI supercedes PTI 13-03653 issued on July 11, 2000		OAC rule 3745-17-07(A)
		OAC rule 3745-31-05(D)

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PTI A

Modification Issued: 10/27/2005

Emissions Unit ID: P002

Applicable Emissions
Limitations/Control Measures

NOx emissions from this emissions unit shall not exceed 49.00 lbs/hr and 14.7 TPY.

CO emissions from this emissions unit shall not exceed 3.77 lbs/hr and 1.13 TPY.

Total Organic Compound (TOC) emissions from this emissions unit shall not exceed 1.54 lbs/hr and 0.46 TPY.

Particulate emissions from this emissions unit shall not exceed 1.25 lbs/hr and 0.38 TPY.

Sulfur dioxide emissions from this emissions unit shall not exceed 0.050 lb/mmBtu actual heat input, 1.01 lbs/hr and 0.31 TPY.

The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-11(B)(5)(b) and 3745-17-07(A).

Particulate emissions shall not exceed 0.062 lb/MMBtu actual heat input.

This emission limitation specified by this rule is less

stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).

Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed twenty (20) percent opacity, as a six-minute average, except for a period of not more than six (6) consecutive minutes in any sixty-minute period.

Annual NOx emissions for facility--See terms A.2.a., B.2 and B.3.

Modification Issued: 10/27/2005

2. Additional Terms and Conditions

- 2.a** The total annual emissions of NO_x from all emissions units at this facility (P001, P002, P003, P004, P005 and P006) shall be limited to 88.2 tons, as a rolling 12-month summation. This annual facility NO_x emission limitation shall be achieved by restricting both the maximum quantity of diesel fuel burned (#2 oil) and the maximum annual hours of operation for these emissions units as indicated in section B.

B. Operational Restrictions

1. The quality of the oil burned in this emissions unit shall meet, on an "as received" basis, a sulfur content which is sufficient to comply with the allowable sulfur dioxide emissions limitation of 0.05 pounds SO₂/ MMBtu of actual heat output.
2. The operation of the emission unit P002 (i.e., the firing of the engine with diesel fuel (#2 oil) accompanied by the generation of electricity) shall be limited to no more than 600 hours per year, based on a rolling, 12-month summation of operating hours.
3. The maximum quantity of diesel fuel which may be burned in emission unit P002 shall not exceed 85,800 gallons per year based on a rolling 12-month summation of fuel usage.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information:

Emissions Unit ID: P002

- a. the total volume (in gallons) of low sulfur No. 2 diesel fuel burned in emissions unit P002;
 - b. the total hours of operation of emission unit P002;
 - c. the rolling, 12-month summation of the operating hours ; and
 - d. the rolling, 12-month summation of diesel fuel usage.
2. The permittee shall calculate and record, on a monthly basis, the total emissions of NO_x, CO, SO₂, PM, and total organic compound emissions for emission unit P002, utilizing methods of calculation specified in section E of these terms and conditions.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of both the rolling, 12-month fuel usage limitation and the rolling, 12-month operating hours restriction. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).
2. The permittee shall submit an annual report which summarizes the following information:
 - a. the monthly and annual volume (in gallons) of low sulfur diesel fuel burned in emission unit P002;
 - b. the total monthly and annual hours of operation of emission unit P002;
 - c. the total annual emissions of NO_x, CO, PM, SO₂, and total organic compounds from emission unit P002 for the previous calendar year ; and
 - d. the total annual emissions of NO_x, CO, PM, SO₂, and total organic compounds from all emissions units (P001, P002, P003, P004, P005, & P006) collectively for the previous calendar year.

This reports shall be submitted by January 31 of each year for operations during the previous calendar year.

E. Testing Requirements

1. Compliance with the emission limitations in section A.1. of these terms and conditions

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shall be determined in accordance with the following methods:

- a. Emissions Limitation: NO_x emissions from each emissions unit shall not exceed 49.00 lbs/hr and 14.7 TPY; NO_x emissions from this facility (emissions units P001, P002, P003, P004, P005, & P006) shall not exceed 88.2 TPY

Applicable Compliance Method: Compliance shall be based on calculations using the rated horsepower of each emissions unit, the hours of operation recorded above, and the manufacturer's emissions factor specified below with the following equation:

$$ER(\text{HOURLY}) = HP \times Ef \times 1/453.6, \text{ and}$$

$$ER(\text{ANNUAL}) = HP \times Ef \times 1/453.6 \times A \times 1/2000.$$

Where:

HP = Rated horsepower of each engine,

Ef = Emissions factor for engine in grams/horsepower-hour (8.23 grams NO_x/HP-HR),

A = Annual hours of engine operation.

Annual emissions for the facility (P001, P002, P003, P004, P005, & P006 collectively) shall simply be the annual emissions for each engine multiplied by six. If required pursuant to OAC rule 3745-15-04, the permittee shall demonstrate compliance with the NO_x emissions limits of this permit by means of physical testing of the effluent from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, "Standards of Performance for New Stationary Sources", Appendix A, Method 7 or 7E.

- b. Emissions Limitation: Carbon monoxide emissions from each emissions unit shall not exceed 3.77 lbs/hr and 1.13 TPY.

Applicable Compliance Method: Compliance shall be based on calculations utilizing emissions factors specified in U.S. EPA document AP-42, 5th Edition, "Compilation of Air Pollution Emissions Factors", section 3.4, table 3.4-1 (10/96), the maximum rated horsepower (or heat rate) for each engine, and the hours of operation of this emissions unit as recorded above. If required pursuant to OAC

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PTI A

Modification Issued: 10/27/2005

Emissions Unit ID: **P002**

rule 3745-15-04, the permittee shall demonstrate compliance with the CO emissions limits of this permit by means of physical testing of the effluent from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, "Standards of Performance for New Stationary Sources", Appendix A, Method 10.

- c. Emissions Limitation: Total organic compound emissions from each emissions unit shall not exceed 1.54 lbs/hr and 0.46 TPY.

Applicable Compliance Method: Compliance shall be based on calculations utilizing emissions factors specified in U.S. EPA document AP-42, 5th Edition, "Compilation

Emissions Unit ID: P002

of Air Pollution Emissions Factors", section 3.4, table 3.4-1 (10/96), the maximum rated horsepower (or heat rate) for each engine, and the hours of operation of this emissions unit as recorded above.

- d. Emissions Limitation: Particulate emissions from each emissions unit shall not exceed 0.062 lb/MMBtu of actual heat input, 1.25 lbs/hr and 0.38 TPY.

Applicable Compliance Method: Compliance shall be based on calculations utilizing emissions factors specified in U.S. EPA document AP-42, 5th Edition, "Compilation of Air Pollution Emissions Factors", section 3.4, table 3.4-1 (10/96), the maximum rated horsepower (or heat rate) for each engine, and the hours of operation of this emissions unit as recorded above. If required pursuant to OAC rule 3745-15-04, the permittee shall demonstrate compliance with the particulate emissions limits of this permit by means of physical testing of the effluent from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, "Standards of Performance for New Stationary Sources", Appendix A, Method 5, and OAC rule 3745-17-03(B)(7).

- e. Emissions Limitation: Sulfur dioxide emissions from each emissions unit shall not exceed 0.050 lb/MMBtu of actual heat input, 1.01 lbs/hr and 0.31 TPY.

Applicable Compliance Method: Compliance shall be based on calculations utilizing emissions factors specified in U.S. EPA document AP-42, 5th Edition, "Compilation of Air Pollution Emissions Factors", section 3.4, table 3.4-1 (10/96), the maximum rated horsepower (or heat rate) for each engine, and the hours of operation of this emissions unit as recorded above. If required pursuant to OAC rule 3745-15-04, the permittee shall demonstrate compliance with the sulfur dioxide emissions limits of this permit by means of physical testing of the effluent from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, "Standards of Performance for New Stationary Sources", Appendix A, Method 6, and in OAC rule 3745-18-04.

- f. Emissions Limitation: Visible particulate emissions from the exhaust stack serving each emissions unit shall not exceed twenty (20) percent opacity, as a six-minute average, except for a period of not more than six (6) consecutive minutes in any sixty-minute period.

Applicable Compliance Method: Compliance shall be determined through visible emissions observations in accordance with test procedures specified in 40 CFR Part 60, Method 9, and in OAC rule 3745-17-03(B)(1).

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Modification Issued: 10/27/2005

Emissions Unit ID: **P002**

F. Miscellaneous Requirements

1. The following terms and conditions in this permit-to-install are federally enforceable :
A.2.a, B.2, B.3, , C.1,C.2,,D.1 and D.2.

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PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	OAC rule 3745-17-11(B)(5)(b)
P003 - 20.02 MMBtu/hr Diesel Generator. Caterpillar Model 3516B/2628 BHP.	OAC rule 3745-31-05(A)(3)	OAC rule 3745-18-06(G)
MODIFIED		
This PTI supercedes PTI 13-03653 issued on July 11, 2000		OAC rule 3745-17-07(A)
		OAC rule 3745-35-05(D)

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Modification Issued: 10/27/2005

Emissions Unit ID: P003

Applicable Emissions
Limitations/Control Measures

NOx emissions from this emissions unit shall not exceed 49.00 lbs/hr and 14.7 TPY.

CO emissions from this emissions unit shall not exceed 3.77 lbs/hr and 1.13 TPY.

Total Organic Compound (TOC) emissions from this emissions unit shall not exceed 1.54 lbs/hr and 0.46 TPY.

Particulate emissions from this emissions unit shall not exceed 1.25 lbs/hr and 0.38 TPY.

Sulfur dioxide emissions from this emissions unit shall not exceed 0.050 lb/mmBtu actual heat input, 1.01 lbs/hr and 0.31 TPY.

The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-11(B)(5)(b) and 3745-17-07(A).

Particulate emissions shall not exceed 0.062 lb/MMBtu actual heat input.

This emission limitation

specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).

Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed twenty (20) percent opacity, as a six-minute average, except for a period of not more than six (6) consecutive minutes in any sixty-minute period.

Annual NOx emissions for facility--See terms A.2.a., B.2 and B.3.

2. Additional Terms and Conditions

- 2.a** The total annual emissions of NO_x from all emissions units at this facility (P001, P002, P003, P004, P005 and P006) shall be limited to 88.2 tons, as a rolling 12-month summation. This annual facility NO_x emission limitation shall be achieved by restricting both the maximum quantity of diesel fuel burned (#2 oil) and the maximum annual hours of operation for these emissions units as indicated in section B.

B. Operational Restrictions

1. The quality of the oil burned in this emissions unit shall meet, on an "as received" basis, a sulfur content which is sufficient to comply with the allowable sulfur dioxide emissions limitation of 0.05 pounds SO₂/ MMBtu of actual heat output.
2. The operation of the emission unit P003 (i.e., the firing of the engine with diesel fuel (#2 oil) accompanied by the generation of electricity) shall be limited to no more than 600 hours per year, based on a rolling, 12-month summation of operating hours.
3. The maximum quantity of diesel fuel which may be burned in emission unit P003 shall not exceed 85,800 gallons per year based on a rolling 12-month summation of fuel usage.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information:

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- a. the total volume (in gallons) of low sulfur No. 2 diesel fuel burned in emissions unit P003;
 - b. the total hours of operation of emission unit P003;
 - c. the rolling, 12-month summation of the operating hours ; and
 - d. the rolling, 12-month summation of diesel fuel usage.
2. The permittee shall calculate and record, on a monthly basis, the total emissions of NO_x, CO, SO₂, PM, and total organic compound emissions for emission unit P003, utilizing methods of calculation specified in section E of these terms and conditions.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of both the rolling, 12-month fuel usage limitation and the rolling, 12-month operating hours restriction. These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).
2. The permittee shall submit an annual report which summarizes the following information:
 - a. the monthly and annual volume (in gallons) of low sulfur diesel fuel burned in emission unit P003;
 - b. the total monthly and annual hours of operation of emission unit P003;
 - c. the total annual emissions of NO_x, CO, PM, SO₂, and total organic compounds from emission unit P003 for the previous calendar year ; and
 - d. the total annual emissions of NO_x, CO, PM, SO₂, and total organic compounds from all emissions units (P001, P002, P003, P004, P005, & P006) collectively for the previous calendar year.

This reports shall be submitted by January 31 of each year for operations during the previous calendar year.

E. Testing Requirements

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1. Compliance with the emission limitations in section A.1. of these terms and conditions shall be determined in accordance with the following methods:

- a. Emissions Limitation: NOx emissions from each emissions unit shall not exceed 49.00 lbs/hr and 14.7 TPY; NOx emissions from this facility (emissions units P001, P002, P003, P004, P005, & P006) shall not exceed 88.2 TPY

Applicable Compliance Method: Compliance shall be based on calculations using the rated horsepower of each emissions unit, the hours of operation recorded above, and the manufacturer's emissions factor specified below with the following equation:

$$ER(\text{HOURLY}) = HP \times Ef \times 1/453.6, \text{ and}$$

$$ER(\text{ANNUAL}) = HP \times Ef \times 1/453.6 \times A \times 1/2000.$$

Where:

HP = Rated horsepower of each engine,

Ef = Emissions factor for engine in grams/horsepower-hour (8.23 grams NOx/HP-HR),

A = Annual hours of engine operation.

Annual emissions for the facility (P001, P002, P003, P004, P005, & P006 collectively) shall simply be the annual emissions for each engine multiplied by six. If required pursuant to OAC rule 3745-15-04, the permittee shall demonstrate compliance with the NOx emissions limits of this permit by means of physical testing of the effluent from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, "Standards of Performance for New Stationary Sources", Appendix A, Method 7 or 7E.

- b. Emissions Limitation: Carbon monoxide emissions from each emissions unit shall not exceed 3.77 lbs/hr and 1.13 TPY.

Applicable Compliance Method: Compliance shall be based on calculations utilizing emissions factors specified in U.S. EPA document AP-42, 5th Edition, "Compilation of Air Pollution Emissions Factors", section 3.4, table 3.4-1 (10/96), the maximum rated horsepower (or heat rate) for each engine, and the hours of

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Emissions Unit ID: P003

operation of this emissions unit as recorded above. If required pursuant to OAC rule 3745-15-04, the permittee shall demonstrate compliance with the CO emissions limits of this permit by means of physical testing of the effluent from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, "Standards of Performance for New Stationary Sources", Appendix A, Method 10.

- c. Emissions Limitation: Total organic compound emissions from each emissions unit shall not exceed 1.54 lbs/hr and 0.46 TPY.

Applicable Compliance Method: Compliance shall be based on calculations utilizing emissions factors specified in U.S. EPA document AP-42, 5th Edition, "Compilation

of Air Pollution Emissions Factors", section 3.4, table 3.4-1 (10/96), the maximum rated horsepower (or heat rate) for each engine, and the hours of operation of this emissions unit as recorded above.

- d. Emissions Limitation: Particulate emissions from each emissions unit shall not exceed 0.062 lb/MMBtu of actual heat input, 1.25 lbs/hr and 0.38 TPY.

Applicable Compliance Method: Compliance shall be based on calculations utilizing emissions factors specified in U.S. EPA document AP-42, 5th Edition, "Compilation of Air Pollution Emissions Factors", section 3.4, table 3.4-1 (10/96), the maximum rated horsepower (or heat rate) for each engine, and the hours of operation of this emissions unit as recorded above. If required pursuant to OAC rule 3745-15-04, the permittee shall demonstrate compliance with the particulate emissions limits of this permit by means of physical testing of the effluent from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, "Standards of Performance for New Stationary Sources", Appendix A, Method 5, and OAC rule 3745-17-03(B)(7).

- e. Emissions Limitation: Sulfur dioxide emissions from each emissions unit shall not exceed 0.050 lb/MMBtu of actual heat input, 1.01 lbs/hr and 0.31 TPY.

Applicable Compliance Method: Compliance shall be based on calculations utilizing emissions factors specified in U.S. EPA document AP-42, 5th Edition, "Compilation of Air Pollution Emissions Factors", section 3.4, table 3.4-1 (10/96), the maximum rated horsepower (or heat rate) for each engine, and the hours of operation of this emissions unit as recorded above. If required pursuant to OAC rule 3745-15-04, the permittee shall demonstrate compliance with the sulfur dioxide emissions limits of this permit by means of physical testing of the effluent from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, "Standards of Performance for New Stationary Sources", Appendix A, Method 6, and in OAC rule 3745-18-04.

- f. Emissions Limitation: Visible particulate emissions from the exhaust stack serving each emissions unit shall not exceed twenty (20) percent opacity, as a six-minute average, except for a period of not more than six (6) consecutive minutes in any sixty-minute period.

Applicable Compliance Method: Compliance shall be determined through visible emissions observations in accordance with test procedures specified in 40 CFR Part 60, Method 9, and in OAC rule 3745-17-03(B)(1).

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Facility ID: 131800823

Emissions Unit ID: P003

F. Miscellaneous Requirements

1. The following terms and conditions in this permit-to-install are federally enforceable:
A.2.a, B.2, B.3, , C.1,C.2,,D.1 and D.2.

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PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	OAC rule 3745-17-11(B)(5)(b)
P004 - 20.02 MMBtu/hr Diesel Generator. Caterpillar Model 3516B/2628 BHP.	OAC rule 3745-31-05(A)(3)	OAC rule 3745-18-06(G)
MODIFIED		
This PTI supercedes PTI 13-03653 issued on July 11, 2000		OAC rule 3745-17-07(A)
		OAC rule 3745-35-05(D)

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Emissions Unit ID: P004

Applicable Emissions Limitations/Control Measures	stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).
NO _x emissions from this emissions unit shall not exceed 49.00 lbs/hr and 14.7 TPY.	Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed twenty (20) percent opacity, as a six-minute average, except for a period of not more than six (6) consecutive minutes in any sixty-minute period.
CO emissions from this emissions unit shall not exceed 3.77 lbs/hr and 1.13 TPY.	Annual NO _x emissions for facility--See terms A.2.a., B.2 and B.3.
Total Organic Compound (TOC) emissions from this emissions unit shall not exceed 1.54 lbs/hr and 0.46 TPY.	
Particulate emissions from this emissions unit shall not exceed 1.25 lbs/hr and 0.38 TPY.	
Sulfur dioxide emissions from this emissions unit shall not exceed 0.050 lb/mmBtu actual heat input, 1.01 lbs/hr and 0.31 TPY.	
The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-11(B)(5)(b) and 3745-17-07(A).	
Particulate emissions shall not exceed 0.062 lb/MMBtu actual heat input.	
This emission limitation specified by this rule is less	

2. Additional Terms and Conditions

- 2.a** The total annual emissions of NO_x from all emissions units at this facility (P001, P002, P003, P004, P005 and P006) shall be limited to 88.2 tons, as a rolling 12-month summation. This annual facility NO_x emission limitation shall be achieved by restricting both the maximum quantity of diesel fuel burned (#2 oil) and the maximum annual hours of operation for these emissions units as indicated in section B.

B. Operational Restrictions

1. The quality of the oil burned in this emissions unit shall meet, on an "as received" basis, a sulfur content which is sufficient to comply with the allowable sulfur dioxide emissions limitation of 0.05 pounds SO₂/ MMBtu of actual heat output.
2. The operation of the emission unit P004 (i.e., the firing of the engine with diesel fuel (#2 oil) accompanied by the generation of electricity) shall be limited to no more than 600 hours per year, based on a rolling, 12-month summation of operating hours.
3. The maximum quantity of diesel fuel which may be burned in emission unit P004 shall not exceed 85,800 gallons per year based on a rolling 12-month summation of fuel usage.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information:

Emissions Unit ID: P004

- a. the total volume (in gallons) of low sulfur No. 2 diesel fuel burned in emissions unit P004;
 - b. the total hours of operation of emission unit P004;
 - c. the rolling, 12-month summation of the operating hours ; and
 - d. the rolling, 12-month summation of diesel fuel usage.
2. The permittee shall calculate and record, on a monthly basis, the total emissions of NO_x, CO, SO₂, PM, and total organic compound emissions for emission unit P004, utilizing methods of calculation specified in section E of these terms and conditions.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of both the rolling, 12-month fuel usage limitation and the rolling, 12-month operating hours restriction. . These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).
2. The permittee shall submit an annual report which summarizes the following information:
 - a. the monthly and annual volume (in gallons) of low sulfur diesel fuel burned in emission unit P004;
 - b. the total monthly and annual hours of operation of emission unit P004;
 - c. the total annual emissions of NO_x, CO, PM, SO₂, and total organic compounds from emission unit P004 for the previous calendar year ; and
 - d. the total annual emissions of NO_x, CO, PM, SO₂, and total organic compounds from all emissions units (P001, P002, P003, P004, P005, & P006) collectively for the previous calendar year.

This reports shall be submitted by January 31 of each year for operations during the previous calendar year.

E. Testing Requirements

1. Compliance with the emission limitations in section A.1. of these terms and conditions

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shall be determined in accordance with the following methods:

- a. Emissions Limitation: NO_x emissions from each emissions unit shall not exceed 49.00 lbs/hr and 14.7 TPY; NO_x emissions from this facility (emissions units P001, P002, P003, P004, P005, & P006) shall not exceed 88.2 TPY

Applicable Compliance Method: Compliance shall be based on calculations using the rated horsepower of each emissions unit, the hours of operation recorded above, and the manufacturer's emissions factor specified below with the following equation:

$$ER(\text{HOURLY}) = HP \times Ef \times 1/453.6, \text{ and}$$

$$ER(\text{ANNUAL}) = HP \times Ef \times 1/453.6 \times A \times 1/2000.$$

Where:

HP = Rated horsepower of each engine,

Ef = Emissions factor for engine in grams/horsepower-hour (8.23 grams NO_x/HP-HR),

A = Annual hours of engine operation.

Annual emissions for the facility (P001, P002, P003, P004, P005, & P006 collectively) shall simply be the annual emissions for each engine multiplied by six. If required pursuant to OAC rule 3745-15-04, the permittee shall demonstrate compliance with the NO_x emissions limits of this permit by means of physical testing of the effluent from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, "Standards of Performance for New Stationary Sources", Appendix A, Method 7 or 7E.

- b. Emissions Limitation: Carbon monoxide emissions from each emissions unit shall not exceed 3.77 lbs/hr and 1.13 TPY.

Applicable Compliance Method: Compliance shall be based on calculations utilizing emissions factors specified in U.S. EPA document AP-42, 5th Edition, "Compilation of Air Pollution Emissions Factors", section 3.4, table 3.4-1 (10/96), the maximum rated horsepower (or heat rate) for each engine, and the hours of operation of this emissions unit as recorded above. If required pursuant to OAC

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rule 3745-15-04, the permittee shall demonstrate compliance with the CO emissions limits of this permit by means of physical testing of the effluent from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, "Standards of Performance for New Stationary Sources", Appendix A, Method 10.

- c. Emissions Limitation: Total organic compound emissions from each emissions unit shall not exceed 1.54 lbs/hr and 0.46 TPY.

Applicable Compliance Method: Compliance shall be based on calculations utilizing emissions factors specified in U.S. EPA document AP-42, 5th Edition, "Compilation

Emissions Unit ID: **P004**

of Air Pollution Emissions Factors", section 3.4, table 3.4-1 (10/96), the maximum rated horsepower (or heat rate) for each engine, and the hours of operation of this emissions unit as recorded above.

- d. Emissions Limitation: Particulate emissions from each emissions unit shall not exceed 0.062 lb/MMBtu of actual heat input, 1.25 lbs/hr and 0.38 TPY.

Applicable Compliance Method: Compliance shall be based on calculations utilizing emissions factors specified in U.S. EPA document AP-42, 5th Edition, "Compilation of Air Pollution Emissions Factors", section 3.4, table 3.4-1 (10/96), the maximum rated horsepower (or heat rate) for each engine, and the hours of operation of this emissions unit as recorded above. If required pursuant to OAC rule 3745-15-04, the permittee shall demonstrate compliance with the particulate emissions limits of this permit by means of physical testing of the effluent from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, "Standards of Performance for New Stationary Sources", Appendix A, Method 5, and OAC rule 3745-17-03(B)(7).

- e. Emissions Limitation: Sulfur dioxide emissions from each emissions unit shall not exceed 0.050 lb/MMBtu of actual heat input, 1.01 lbs/hr and 0.31 TPY.

Applicable Compliance Method: Compliance shall be based on calculations utilizing emissions factors specified in U.S. EPA document AP-42, 5th Edition, "Compilation of Air Pollution Emissions Factors", section 3.4, table 3.4-1 (10/96), the maximum rated horsepower (or heat rate) for each engine, and the hours of operation of this emissions unit as recorded above. If required pursuant to OAC rule 3745-15-04, the permittee shall demonstrate compliance with the sulfur dioxide emissions limits of this permit by means of physical testing of the effluent from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, "Standards of Performance for New Stationary Sources", Appendix A, Method 6, and in OAC rule 3745-18-04.

- f. Emissions Limitation: Visible particulate emissions from the exhaust stack serving each emissions unit shall not exceed twenty (20) percent opacity, as a six-minute average, except for a period of not more than six (6) consecutive minutes in any sixty-minute period.

Applicable Compliance Method: Compliance shall be determined through visible emissions observations in accordance with test procedures specified in 40 CFR Part 60, Method 9, and in OAC rule 3745-17-03(B)(1).

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Facility ID: 131800823

Emissions Unit ID: P004

F. Miscellaneous Requirements

1. The following terms and conditions in this permit-to-install are federally enforceable:
A.2.a, B.2, B.3, , C.1,C.2,,D.1 and D.2.

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Emissions Unit ID: **P005**

Modification Issued: 10/27/2005

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	OAC rule 3745-17-11(B)(5)(b)
P005 - 20.02 MMBtu/hr Diesel Generator. Caterpillar Model 3516B/2628 BHP.	OAC rule 3745-31-05(A)(3)	OAC rule 3745-18-06(G)
MODIFIED		
This PTI supercedes PTI 13-03653 issued on July 11, 2000		OAC rule 3745-17-07(A)
		OAC rule 3745-35-05(D)

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Modification Issued: 10/27/2005

Emissions Unit ID: P005

Applicable Emissions
Limitations/Control Measures

NOx emissions from this emissions unit shall not exceed 49.00 lbs/hr and 14.7 TPY.

CO emissions from this emissions unit shall not exceed 3.77 lbs/hr and 1.13 TPY.

Total Organic Compound (TOC) emissions from this emissions unit shall not exceed 1.54 lbs/hr and 0.46 TPY.

Particulate emissions from this emissions unit shall not exceed 1.25 lbs/hr and 0.38 TPY.

Sulfur dioxide emissions from this emissions unit shall not exceed 0.050 lb/mmBtu actual heat input, 1.01 lbs/hr and 0.31 TPY.

The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-11(B)(5)(b) and 3745-17-07(A).

Particulate emissions shall not exceed 0.062 lb/MMBtu actual heat input.

This emission limitation

specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).

Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed twenty (20) percent opacity, as a six-minute average, except for a period of not more than six (6) consecutive minutes in any sixty-minute period.

Annual NOx emissions for facility--See terms A.2.a., B.2 and B.3.

2. Additional Terms and Conditions

- 2.a** The total annual emissions of NO_x from all emissions units at this facility (P001, P002, P003, P004, P005 and P006) shall be limited to 88.2 tons, as a rolling 12-month summation. This annual facility NO_x emission limitation shall be achieved by restricting both the maximum quantity of diesel fuel burned (#2 oil) and the maximum annual hours of operation for these emissions units as indicated in section B.

B. Operational Restrictions

1. The quality of the oil burned in this emissions unit shall meet, on an "as received" basis, a sulfur content which is sufficient to comply with the allowable sulfur dioxide emissions limitation of 0.05 pounds SO₂/ MMBtu of actual heat output.
2. The operation of the emission unit P005 (i.e., the firing of the engine with diesel fuel (#2 oil) accompanied by the generation of electricity) shall be limited to no more than 600 hours per year, based on a rolling, 12-month summation of operating hours.
3. The maximum quantity of diesel fuel which may be burned in emission unit P005 shall not exceed 85,800 gallons per year based on a rolling 12-month summation of fuel usage.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information:

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- a. the total volume (in gallons) of low sulfur No. 2 diesel fuel burned in emissions unit P005;
 - b. the total hours of operation of emission unit P005;
 - c. the rolling, 12-month summation of the operating hours ; and
 - d. the rolling, 12-month summation of diesel fuel usage.
2. The permittee shall calculate and record, on a monthly basis, the total emissions of NO_x, CO, SO₂, PM, and total organic compound emissions for emission unit P005, utilizing methods of calculation specified in section E of these terms and conditions.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of both the rolling, 12-month fuel usage limitation and the rolling, 12-month operating hours restriction. . These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).
2. The permittee shall submit an annual report which summarizes the following information:
 - a. the monthly and annual volume (in gallons) of low sulfur diesel fuel burned in emission unit P005;
 - b. the total monthly and annual hours of operation of emission unit P005;
 - c. the total annual emissions of NO_x, CO, PM, SO₂, and total organic compounds from emission unit P005 for the previous calendar year ; and
 - d. the total annual emissions of NO_x, CO, PM, SO₂, and total organic compounds from all emissions units (P001, P002, P003, P004, P005, & P006) collectively for the previous calendar year.

This reports shall be submitted by January 31 of each year for operations during the previous calendar year

E. Testing Requirements

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1. Compliance with the emission limitations in section A.1. of these terms and conditions shall be determined in accordance with the following methods:

- a. Emissions Limitation: NOx emissions from each emissions unit shall not exceed 49.00 lbs/hr and 14.7 TPY; NOx emissions from this facility (emissions units P001, P002, P003, P004, P005, & P006) shall not exceed 88.2 TPY

Applicable Compliance Method: Compliance shall be based on calculations using the rated horsepower of each emissions unit, the hours of operation recorded above, and the manufacturer's emissions factor specified below with the following equation:

$$ER(\text{HOURLY}) = HP \times Ef \times 1/453.6, \text{ and}$$

$$ER(\text{ANNUAL}) = HP \times Ef \times 1/453.6 \times A \times 1/2000.$$

Where:

HP = Rated horsepower of each engine,

Ef = Emissions factor for engine in grams/horsepower-hour (8.23 grams NOx/HP-HR),

A = Annual hours of engine operation.

Annual emissions for the facility (P001, P002, P003, P004, P005, & P006 collectively) shall simply be the annual emissions for each engine multiplied by six. If required pursuant to OAC rule 3745-15-04, the permittee shall demonstrate compliance with the NOx emissions limits of this permit by means of physical testing of the effluent from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, "Standards of Performance for New Stationary Sources", Appendix A, Method 7 or 7E.

- b. Emissions Limitation: Carbon monoxide emissions from each emissions unit shall not exceed 3.77 lbs/hr and 1.13 TPY.

Applicable Compliance Method: Compliance shall be based on calculations utilizing emissions factors specified in U.S. EPA document AP-42, 5th Edition, "Compilation of Air Pollution Emissions Factors", section 3.4, table 3.4-1 (10/96), the maximum rated horsepower (or heat rate) for each engine, and the hours of

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Facility ID: 131800823

Emissions Unit ID: P005

operation of this emissions unit as recorded above. If required pursuant to OAC rule 3745-15-04, the permittee shall demonstrate compliance with the CO emissions limits of this permit by means of physical testing of the effluent from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, "Standards of Performance for New Stationary Sources", Appendix A, Method 10.

- c. Emissions Limitation: Total organic compound emissions from each emissions unit shall not exceed 1.54 lbs/hr and 0.46 TPY.

Applicable Compliance Method: Compliance shall be based on calculations utilizing emissions factors specified in U.S. EPA document AP-42, 5th Edition, "Compilation

of Air Pollution Emissions Factors", section 3.4, table 3.4-1 (10/96), the maximum rated horsepower (or heat rate) for each engine, and the hours of operation of this emissions unit as recorded above.

- d. Emissions Limitation: Particulate emissions from each emissions unit shall not exceed 0.062 lb/MMBtu of actual heat input, 1.25 lbs/hr and 0.38 TPY.

Applicable Compliance Method: Compliance shall be based on calculations utilizing emissions factors specified in U.S. EPA document AP-42, 5th Edition, "Compilation of Air Pollution Emissions Factors", section 3.4, table 3.4-1 (10/96), the maximum rated horsepower (or heat rate) for each engine, and the hours of operation of this emissions unit as recorded above. If required pursuant to OAC rule 3745-15-04, the permittee shall demonstrate compliance with the particulate emissions limits of this permit by means of physical testing of the effluent from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, "Standards of Performance for New Stationary Sources", Appendix A, Method 5, and OAC rule 3745-17-03(B)(7).

- e. Emissions Limitation: Sulfur dioxide emissions from each emissions unit shall not exceed 0.050 lb/MMBtu of actual heat input, 1.01 lbs/hr and 0.31 TPY.

Applicable Compliance Method: Compliance shall be based on calculations utilizing emissions factors specified in U.S. EPA document AP-42, 5th Edition, "Compilation of Air Pollution Emissions Factors", section 3.4, table 3.4-1 (10/96), the maximum rated horsepower (or heat rate) for each engine, and the hours of operation of this emissions unit as recorded above. If required pursuant to OAC rule 3745-15-04, the permittee shall demonstrate compliance with the sulfur dioxide emissions limits of this permit by means of physical testing of the effluent from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, "Standards of Performance for New Stationary Sources", Appendix A, Method 6, and in OAC rule 3745-18-04.

- f. Emissions Limitation: Visible particulate emissions from the exhaust stack serving each emissions unit shall not exceed twenty (20) percent opacity, as a six-minute average, except for a period of not more than six (6) consecutive minutes in any sixty-minute period.

Applicable Compliance Method: Compliance shall be determined through visible emissions observations in accordance with test procedures specified in 40 CFR Part 60, Method 9, and in OAC rule 3745-17-03(B)(1).

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F. Miscellaneous Requirements

1. The following terms and conditions in this permit-to-install are federally enforceable:
A.2.a, B.2, B.3, , C.1,C.2,,D.1 and D.2.

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Emissions Unit ID: P006

Modification Issued: 10/27/2005

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

- The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	OAC rule 3745-17-11(B)(5)(b)
P006 - 20.02 MMBtu/hr Diesel Generator. Caterpillar Model 3516B/2628 BHP.	OAC rule 3745-31-05(A)(3)	OAC rule 3745-18-06(G)
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This PTI supercedes PTI 13-03653 issued on July 11, 2000		OAC rule 3745-17-07(A)
		OAC rule 3745-35-05(D)

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Applicable Emissions Limitations/Control Measures	stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).
NOx emissions from this emissions unit shall not exceed 49.00 lbs/hr and 14.7 TPY.	Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed twenty (20) percent opacity, as a six-minute average, except for a period of not more than six (6) consecutive minutes in any sixty-minute period.
CO emissions from this emissions unit shall not exceed 3.77 lbs/hr and 1.13 TPY.	Annual NOx emissions for facility--See terms A.2.a., B.2 and B.3.
Total Organic Compound (TOC) emissions from this emissions unit shall not exceed 1.54 lbs/hr and 0.46 TPY.	
Particulate emissions from this emissions unit shall not exceed 1.25 lbs/hr and 0.38 TPY.	
Sulfur dioxide emissions from this emissions unit shall not exceed 0.050 lb/mmBtu actual heat input, 1.01 lbs/hr and 0.31 TPY.	
The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-11(B)(5)(b) and 3745-17-07(A).	
Particulate emissions shall not exceed 0.062 lb/MMBtu actual heat input.	
This emission limitation specified by this rule is less	

Modification Issued: 10/27/2005**2. Additional Terms and Conditions**

- 2.a** The total annual emissions of NO_x from all emissions units at this facility (P001, P002, P003, P004, P005 and P006) shall be limited to 88.2 tons, as a rolling 12-month summation. This annual facility NO_x emission limitation shall be achieved by restricting both the maximum quantity of diesel fuel burned (#2 oil) and the maximum annual hours of operation for these emissions units as indicated in section B.

B. Operational Restrictions

1. The quality of the oil burned in this emissions unit shall meet, on an "as received" basis, a sulfur content which is sufficient to comply with the allowable sulfur dioxide emissions limitation of 0.05 pounds SO₂/ MMBtu of actual heat output.
2. The operation of the emission unit P006 (i.e., the firing of the engine with diesel fuel (#2 oil) accompanied by the generation of electricity) shall be limited to no more than 600 hours per year, based on a rolling, 12-month summation of operating hours.
3. The maximum quantity of diesel fuel which may be burned in emission unit P006 shall not exceed 85,800 gallons per year based on a rolling 12-month summation of fuel usage.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information:

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- a. the total volume (in gallons) of low sulfur No. 2 diesel fuel burned in emissions unit P006;
 - b. the total hours of operation of emission unit P006;
 - c. the rolling, 12-month summation of the operating hours ; and
 - d. the rolling, 12-month summation of diesel fuel usage.
2. The permittee shall calculate and record, on a monthly basis, the total emissions of NO_x, CO, SO₂, PM, and total organic compound emissions for emission unit P006, utilizing methods of calculation specified in section E of these terms and conditions.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of both the rolling, 12-month fuel usage limitation and the rolling, 12-month operating hours restriction. . These reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(2).
2. The permittee shall submit an annual report which summarizes the following information:
 - a. the monthly and annual volume (in gallons) of low sulfur diesel fuel burned in emission unit P006;
 - b. the total monthly and annual hours of operation of emission unit P006;
 - c. the total annual emissions of NO_x, CO, PM, SO₂, and total organic compounds from emission unit P006 for the previous calendar year ; and
 - d. the total annual emissions of NO_x, CO, PM, SO₂, and total organic compounds from all emissions units (P001, P002, P003, P004, P005, & P006) collectively for the previous calendar year.

This reports shall be submitted by January 31 of each year for operations during the previous calendar year.

E. Testing Requirements

Emissions Unit ID: **P006**

1. Compliance with the emission limitations in section A.1. of these terms and conditions shall be determined in accordance with the following methods:

- a. Emissions Limitation: NO_x emissions from each emissions unit shall not exceed 49.00 lbs/hr and 14.7 TPY; NO_x emissions from this facility (emissions units P001, P002, P003, P004, P005, & P006) shall not exceed 88.2 TPY

Applicable Compliance Method: Compliance shall be based on calculations using the rated horsepower of each emissions unit, the hours of operation recorded above, and the manufacturer's emissions factor specified below with the following equation:

$$ER(\text{HOURLY}) = HP \times Ef \times 1/453.6, \text{ and}$$

$$ER(\text{ANNUAL}) = HP \times Ef \times 1/453.6 \times A \times 1/2000.$$

Where:

HP = Rated horsepower of each engine,

Ef = Emissions factor for engine in grams/horsepower-hour (8.23 grams NO_x/HP-HR),

A = Annual hours of engine operation.

Annual emissions for the facility (P001, P002, P003, P004, P005, & P006 collectively) shall simply be the annual emissions for each engine multiplied by six. If required pursuant to OAC rule 3745-15-04, the permittee shall demonstrate compliance with the NO_x emissions limits of this permit by means of physical testing of the effluent from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, "Standards of Performance for New Stationary Sources", Appendix A, Method 7 or 7E.

- b. Emissions Limitation: Carbon monoxide emissions from each emissions unit shall not exceed 3.77 lbs/hr and 1.13 TPY.

Applicable Compliance Method: Compliance shall be based on calculations utilizing emissions factors specified in U.S. EPA document AP-42, 5th Edition, "Compilation of Air Pollution Emissions Factors", section 3.4, table 3.4-1 (10/96), the maximum rated horsepower (or heat rate) for each engine, and the hours of operation of this emissions unit as recorded above. If required pursuant to OAC

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rule 3745-15-04, the permittee shall demonstrate compliance with the CO emissions limits of this permit by means of physical testing of the effluent from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, "Standards of Performance for New Stationary Sources", Appendix A, Method 10.

- c. Emissions Limitation: Total organic compound emissions from each emissions unit shall not exceed 1.54 lbs/hr and 0.46 TPY.

Applicable Compliance Method: Compliance shall be based on calculations utilizing emissions factors specified in U.S. EPA document AP-42, 5th Edition, "Compilation

of Air Pollution Emissions Factors", section 3.4, table 3.4-1 (10/96), the maximum rated horsepower (or heat rate) for each engine, and the hours of operation of this emissions unit as recorded above.

- d. Emissions Limitation: Particulate emissions from each emissions unit shall not exceed 0.062 lb/MMBtu of actual heat input, 1.25 lbs/hr and 0.38 TPY.

Applicable Compliance Method: Compliance shall be based on calculations utilizing emissions factors specified in U.S. EPA document AP-42, 5th Edition, "Compilation of Air Pollution Emissions Factors", section 3.4, table 3.4-1 (10/96), the maximum rated horsepower (or heat rate) for each engine, and the hours of operation of this emissions unit as recorded above. If required pursuant to OAC rule 3745-15-04, the permittee shall demonstrate compliance with the particulate emissions limits of this permit by means of physical testing of the effluent from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, "Standards of Performance for New Stationary Sources", Appendix A, Method 5, and OAC rule 3745-17-03(B)(7).

- e. Emissions Limitation: Sulfur dioxide emissions from each emissions unit shall not exceed 0.050 lb/MMBtu of actual heat input, 1.01 lbs/hr and 0.31 TPY.

Applicable Compliance Method: Compliance shall be based on calculations utilizing emissions factors specified in U.S. EPA document AP-42, 5th Edition, "Compilation of Air Pollution Emissions Factors", section 3.4, table 3.4-1 (10/96), the maximum rated horsepower (or heat rate) for each engine, and the hours of operation of this emissions unit as recorded above. If required pursuant to OAC rule 3745-15-04, the permittee shall demonstrate compliance with the sulfur dioxide emissions limits of this permit by means of physical testing of the effluent from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, "Standards of Performance for New Stationary Sources", Appendix A, Method 6, and in OAC rule 3745-18-04.

- f. Emissions Limitation: Visible particulate emissions from the exhaust stack serving each emissions unit shall not exceed twenty (20) percent opacity, as a six-minute average, except for a period of not more than six (6) consecutive minutes in any sixty-minute period.

Applicable Compliance Method: Compliance shall be determined through visible emissions observations in accordance with test procedures specified in 40 CFR Part 60, Method 9, and in OAC rule 3745-17-03(B)(1).

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Facility ID: 131800823

Emissions Unit ID: P006

F. Miscellaneous Requirements

1. The following terms and conditions in this permit-to-install are federally enforceable:
A.2.a, B.2, B.3, , C.1,C.2,,D.1 and D.2.