



State of Ohio Environmental Protection Agency

Street Address:

Lazarus Gov. Center  
122 S. Front Street  
Columbus, OH 43215

TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center  
P.O. Box 1049  
Columbus, OH 43216-1049

**RE: PERMIT TO INSTALL  
WAYNE COUNTY  
Application No: 02-2807**

**CERTIFIED MAIL**

	TOXIC REVIEW
	PSD
X	SYNTHETIC MINOR
	CEMS
	MACT
	NSPS
	NESHAPS
	NETTING
	MAJOR NON-ATTAINMENT
X	MODELING SUBMITTED

**DATE:** July 14, 1999

AMP-Ohio Orrville Peaking Station  
Randy Meyer  
2600 Airport Drive  
Columbus, OH 43219

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

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 Director's 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  
236 East Town Street, Room 300  
Columbus, Ohio 43215

Very truly yours,

Thomas G. Rigo, Manager  
Field Operations and Permit Section  
Division of Air Pollution Control

cc: USEPA  
NEDO, DAPC



**PERMIT TO INSTALL 02-2807**

Application Number: 02-2807

APS Premise  
Number: 0285010399

Permit Fee: **\$600**

Name of Facility: AMP-Ohio Orrville Peaking Station

Person to Contact: Randy Meyer

Address: 2600 Airport Drive  
Columbus, OH 43219

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**1530 North Main Street  
Orrville, OHIO**

Description of proposed emissions unit(s):  
**3-CATERPILLAR MODEL 3516B, 2628HP, 17.53 MMBTU/HR, 1825KW, DIESEL-FUELED  
ENGINE/GENERATOR UNITS.**

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit 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 emissions unit(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 and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

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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 Related to Monitoring and Recordkeeping 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 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)**

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 are inadequate 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 prove to be inadequate 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 application must be made to the Director for the installation or modification of any other emissions unit(s).

#### **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 thirty (30) 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>
Nitrogen Oxides	85.83
Carbon Monoxide	6.61
Sulfur Dioxide	1.59
Particulates	1.95
Total Hydrocarbons	1.92

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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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Caterpillar Model 3516B 2628BHP (17.53 mmBtu/hr), 1825 KW, diesel fueled engine/generator (B001)	OAC rule 3745-31-05	a. NO <sub>x</sub> emissions from this emissions unit shall not exceed 47.69 lbs/hr and 28.61 TPY;  b. CO emissions from this emissions unit shall not exceed 3.67 lbs/hr and 2.20 TPY;  c. Total Organic Compound (TOC) emissions from this emissions unit shall not exceed 1.06 lbs/hr and 0.64 TPY;  d. Particulate emissions from this emissions unit shall not exceed 0.062 lb/mmBtu of heat input, 1.09 lbs/hr and 0.65 TPY; and,  e. Sulfur dioxide emissions from this emissions unit shall not exceed 0.050 pound per million Btu actual heat input, 0.88 lb/hr and 0.53 TPY.
	OAC rule 3745-17-07	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.
	OAC rule 3745-17-11(B)(5)(a)	Less stringent than OAC 3745-31-05

OAC rule 3745-18-06(G)	Less stringent than OAC 3745-31-05
Synthetic minor to avoid Title V and PSD requirements	154,080 gallons /year fuel usage, as a rolling, 12-month summation.
	For all emissions units, B001, B002, and B003, 85.83 TPY nitrogen oxides, as a rolling, 12-month summation.

**2. Additional Terms and Conditions**

**2.a** The total annual emissions of NO<sub>x</sub> from all emissions units at this facility shall be limited to 85.83 tons, as a rolling, 12-month summation. This annual facility NO<sub>x</sub> emission limitation shall be achieved by restricting both the maximum annual hours of operation and the maximum quantity of diesel fuel burned for these emissions units B001, B002, and B003 in the following manner:

- i. The maximum annual operating hours for each of the three diesel engine/generator units shall not exceed 1200, based upon a rolling, 12-month summation of the operating hours.
- ii. The maximum annual quantity of diesel fuel burned in each of the three diesel engine/generator units shall not exceed 154,080 gallons per year, based upon a rolling, 12- month summation of the quantity of diesel fuel burned figures.

**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 emission limitation of 0.05 pounds sulfur dioxide/mmBtu of actual heat input.
- 2. The operation of each of these emissions units (i.e., the firing of this engine with diesel fuel accompanied by the generation of electricity) shall be limited to no more than 1200 hours per year, based upon a rolling, 12- month summation of the operating hours.
- 3. The maximum quantity of diesel fuel which may be burned in each of these emissions units shall not exceed 154,080 gallons per year, based upon a rolling, 12- month summation of the fuel usage.
- 4. To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the operating hours and fuel levels specified in the following table :

CALENDAR MONTH(S) (AFTER PERMIT ISSUANCE)	ALLOWABLE CUMULATIVE TOTAL GALLONS OF FUEL BURNED	ALLOWABLE CUMULATIVE TOTAL EQUIVALENT HOURS OF OPERATION
1	25,680	200
2	51,360	400
3	77,040	600
4	89,880	700
5	102,720	800
6	115,560	900
7	121,980	950
8	128,400	1000
9	134,820	1050
10	141,240	1100
11	147,660	1150
12	154,080	1200

After the first 12 calendar months of operation following the issuance of this permit, compliance with both the annual operating hours and fuel usage limitation shall be based upon a rolling, 12-month summation of the operating hours and fuel usage.

### C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain daily records for this emissions unit which indicate the following information:
  - a. the total volume (in gallons) of low sulfur No. 2 diesel fuel burned in each of these emissions units; and,
  - b. the total hours of operation of each emissions unit.
2. The permittee shall maintain monthly records of the following information:
  - a. Beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the operating hours.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative operating hours for each calendar month.

- b. Beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the diesel usage figures.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative diesel usage for each calendar month.

**D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month diesel fuel usage limitation and/or rolling 12-month operating hour limitation and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative diesel fuel usage limits and the maximum allowable cumulative operating hour limitation. These reports are due by the date described in Part 1 - 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 each emissions unit;
  - b. the total monthly and annual hours of operation of each emissions unit; and,
  - c. the total annual emissions for NO<sub>x</sub>, CO, PM, SO<sub>2</sub>, and total organics for the previous calendar year.

This annual report shall be submitted by January 31 of each year and shall cover the oil shipments received during the previous 12 month period.

**E. Testing Requirements**

1. Emissions Limitation:

NO<sub>x</sub> emissions from each emissions unit shall not exceed 47.69 lbs/hr and 28.61 TPY; 85.83 TPY total for the facility.

Applicable Compliance Method:

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

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

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

where;

HP = Rated horsepower of each engine,

Ef = Emissions factor for engine in grams per horsepower-hour; 8.23 grams per horsepower-hour,

A = Annual hours of engine operation.

If required pursuant to OAC 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.

2. Emissions Limitation:

Carbon monoxide emissions from each emissions unit shall not exceed 3.67 lbs/hr and 2.20 TPY.

Applicable Compliance Method:

Compliance shall be based on the use of AP-42 emissions factors, Section 3.4, the maximum rated heat rate of each emissions unit, and the hours of operation as recorded above. If required pursuant to OAC 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.

3. Emissions Limitation:

Particulate emissions from each emissions unit shall not exceed 0.062 lbs/mmBtu of heat input..

Applicable Compliance Method:

Compliance shall be based upon the use of an emission factor as specified in AP-42, 5th Edition, Compilation of Air Pollution Emission Factors, section 3.4, table 3.4-5, the maximum rated heat rate of this emissions unit, and the hours of operation of this emissions unit as recorded above. If required pursuant to OAC 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 in OAC 3745-17-03(B)(7).

4. Emissions Limitation:

Total organic compound emissions from each emissions unit shall not exceed 1.06 lbs/hr and 0.64 TPY.

Applicable Compliance Method:

Compliance shall be based on the use of AP-42 emissions factors, Section 3.4, the maximum rated heat rate of each emissions unit, and the hours of operation as recorded above.

5. Emissions Limitation:

0.050 pound sulfur dioxide per mmBtu of actual heat input.

Applicable Compliance Method:

Compliance shall be based upon the records required above and the formula referenced in OAC 3745-18-04(F)(2).

6. 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 emission observations in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

**F. Miscellaneous Requirements**

None.

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Caterpillar Model 3516B 2628BHP (17.53 mmBtu/hr), 1825 KW, diesel fueled engine/generator (B002)	OAC rule 3745-31-05	a. NO <sub>x</sub> emissions from this emissions unit shall not exceed 47.69 lbs/hr and 28.61 TPY;  b. CO emissions from this emissions unit shall not exceed 3.67 lbs/hr and 2.20 TPY;  c. Total Organic Compound (TOC) emissions from this emissions unit shall not exceed 1.06 lbs/hr and 0.64 TPY;  d. Particulate emissions from this emissions unit shall not exceed 0.062 lb/mmBtu of heat input, 1.09 lbs/hr and 0.65 TPY; and,  e. Sulfur dioxide emissions from this emissions unit shall not exceed 0.050 pound per million Btu actual heat input, 0.88 lb/hr and 0.53 TPY.
	OAC rule 3745-17-07	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.
	OAC rule 3745-17-11(B)(5)(a)	Less stringent than OAC 3745-31-05

OAC rule 3745-18-06(G)

Synthetic minor to avoid Title V and PSD requirements

Less stringent than OAC 3745-31-05

154,080 gallons /year fuel usage as a rolling 12-month summation.

For all emissions units, B001, B002, and B003, 85.83 TPY nitrogen oxides, as a rolling, 12-month summation.

## **2. Additional Terms and Conditions**

**2.a** The total annual emissions of NO<sub>x</sub> from all emissions units at this facility shall be limited to 85.83 tons. This annual facility NO<sub>x</sub> emission limitation shall be achieved by restricting both the maximum annual hours of operation and the maximum quantity of diesel fuel burned for these emissions units in the following manner:

- i. The maximum annual hours of operation for each of the three diesel engine/generator units shall not exceed 1200, based upon a rolling, 12- month summation of the operating hours.
- ii. The maximum annual quantity of diesel fuel burned in each of the three diesel engine/generator units shall not exceed 154,080 gallons per year, based upon a rolling, 12- month summation of the quantity of the diesel fuel burned figures.

## **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 emission limitation of 0.05 pounds sulfur dioxide/mmBtu of actual heat input.
2. The operation of each of these emissions units (i.e., the firing of this engine with diesel fuel accompanied by the generation of electricity) shall be limited to no more than 1200 hours per year based upon a rolling 12- month summation of the operating hours.
3. The maximum quantity of diesel fuel which may be burned in each of these emissions units shall not exceed 154,080 gallons per year, based upon a rolling 12- month summation of the fuel usage.
4. To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the operating hours and fuel levels specified in the following table :

CALENDAR MONTH(S) (AFTER PERMIT ISSUANCE)	ALLOWABLE CUMULATIVE TOTAL GALLONS OF FUEL BURNED	ALLOWABLE CUMULATIVE TOTAL EQUIVALENT HOURS OF OPERATION
1	25,680	200
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5	102,720	800
6	115,560	900
7	121,980	950
8	128,400	1000
9	134,820	1050
10	141,240	1100
11	147,660	1150
12	154,080	1200

After the first 12 calendar months of operation following the issuance of this permit, compliance with both the annual operating hours and fuel usage limitation shall be based upon a rolling, 12-month summation of the operating hours and fuel usage.

### C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain daily records for this emissions unit which indicate the following information:
  - a. the total volume (in gallons) of low sulfur No. 2 diesel fuel burned in each of these emissions units; and,
  - b. the total hours of operation of each emissions unit.
2. The permittee shall maintain monthly records of the following information:
  - a. Beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the operating hours.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative operating hours for each calendar month.

- b. Beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the diesel usage figures.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative diesel usage for each calendar month.

### D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month diesel fuel usage limitation or rolling 12-month operating hour limitation and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative diesel fuel usage limits and the maximum allowable cumulative operating hour limitation. These reports are due by the date described in Part 1 - 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 each emissions unit;
  - b. the total monthly and annual hours of operation of each emissions unit; and,
  - c. the total annual emissions for NO<sub>x</sub>, CO, PM, SO<sub>2</sub>, and total organics for the previous calendar year.

This annual report shall be submitted by January 31 of each year and shall cover the oil shipments received during the previous 12 month period.

#### **E. Testing Requirements**

1. Emissions Limitation:

NO<sub>x</sub> emissions from each emissions unit shall not exceed 47.69 lbs/hr and 28.61 TPY; 85.83 TPY total for the facility.

Applicable Compliance Method:

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

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

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

where;

HP = Rated horsepower of each engine,

Ef = Emissions factor for engine in grams per horsepower-hour; 8.23 grams per horsepower-hour,

A = Annual hours of engine operation.

If required pursuant to OAC 3745-15-04, the permittee shall demonstrate compliance with the NO<sub>x</sub> 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.

2. Emissions Limitation:

Carbon monoxide emissions from each emissions unit shall not exceed 3.67 lbs/hr and 2.20 TPY.

Applicable Compliance Method:

Compliance shall be based on the use of AP-42 emissions factors, Section 3.4, the maximum rated heat rate of each emissions unit, and the hours of operation as recorded above. If required pursuant to OAC 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.

3. Emissions Limitation:

Particulate emissions from each emissions unit shall not exceed 0.062 lb/mmBtu of heat input..

Applicable Compliance Method:

Compliance shall be based upon the use of an emission factor as specified in AP-42, 5th Edition, Compilation of Air Pollution Emission Factors, section 3.4, table 3.4-5, the maximum rated heat rate of this emissions unit, and the hours of operation of this emissions unit as recorded above. If required pursuant to OAC 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 in OAC 3745-17-03(B)(7).

4. Emissions Limitation:

Total organic compound emissions from each emissions unit shall not exceed 1.06 lbs/hr and 0.64 TPY.

Applicable Compliance Method:

Compliance shall be based on the use of AP-42 emissions factors, Section 3.4, the maximum rated heat rate of each emissions unit, and the hours of operation as recorded above.

5. Emissions Limitation:

0.050 pound sulfur dioxide per mmBtu of actual heat input.

Applicable Compliance Method:

Compliance shall be based upon the records required above and the formula referenced in OAC 3745-18-04(F)(2).

6. 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 emission observations in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

**F. Miscellaneous Requirements**

None.

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Caterpillar Model 3516B 2628BHP (17.53 mmBtu/hr), 1825 KW, diesel fueled engine/generator (B003)	OAC rule 3745-31-05	a. NO <sub>x</sub> emissions from this emissions unit shall not exceed 47.69 lbs/hr and 28.61 TPY;  b. CO emissions from this emissions unit shall not exceed 3.67 lbs/hr and 2.20 TPY;  c. Total Organic Compound (TOC) emissions from this emissions unit shall not exceed 1.06 lbs/hr and 0.64 TPY;  d. Particulate emissions from this emissions unit shall not exceed 0.062 lb/mmBtu of heat input, 1.09 lbs/hr and 0.65 TPY; and,  e. Sulfur dioxide emissions from this emissions unit shall not exceed 0.050 pound per million Btu actual heat input, 0.88 lb/hr and 0.53 TPY.
	OAC rule 3745-17-07	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.
	OAC rule 3745-17-11(B)(5)(a)	Less stringent than OAC 3745-31-05

OAC rule 3745-18-06(G)

Synthetic minor to avoid Title V and PSD requirements

Less stringent than OAC 3745-31-05

154,080 gallons /year fuel usage as a rolling 12-month summation.

For all emissions units, B001, B002, and B003, 85.83 TPY nitrogen oxides, as a rolling, 12-month summation; and

## **2. Additional Terms and Conditions**

**2.a** The total annual emissions of NO<sub>x</sub> from all emissions units at this facility shall be limited to 85.83 tons. This annual facility NO<sub>x</sub> emission limitation shall be achieved by restricting both the maximum annual hours of operation and the maximum quantity of diesel fuel burned for these emissions units in the following manner:

- i. The maximum annual hours of operation for each of the three diesel engine/generator units shall not exceed 1200, based upon a rolling, 12-month summation of the operating hours.
- ii. The maximum annual quantity of diesel fuel burned in each of the two diesel engine/generator units shall not exceed 154,080 gallons per year, based upon a rolling, 12-month summation of the fuel usage.

## **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 emission limitation of 0.05 pound sulfur dioxide/mmBtu of actual heat input.
2. The operation of each of these emissions units (i.e., the firing of this engine with diesel fuel accompanied by the generation of electricity) shall be limited to no more than 1200 hours per year, based upon a rolling, 12- month summation of the operating hours.
3. The maximum quantity of diesel fuel which may be burned in each of these emissions units shall not exceed 154,080 gallons per year, based upon a rolling, 12- month summation of the fuel usage.
4. To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the operating hours and fuel levels specified in the following table :

<u>CALENDAR MONTH(S) (AFTER PERMIT ISSUANCE)</u>	<u>ALLOWABLE CUMULATIVE TOTAL GALLONS OF FUEL BURNED</u>	<u>ALLOWABLE CUMULATIVE TOTAL EQUIVALENT HOURS OF OPERATION</u>
1	25,680	200
2	51,360	400
3	77,040	600
4	89,880	700
5	102,720	800
6	115,560	900
7	121,980	950
8	128,400	1000
9	134,820	1050
10	141,240	1100
11	147,660	1150
12	154,080	1200

After the first 12 calendar months of operation following the issuance of this permit, compliance with both the annual operating hours and fuel usage limitation shall be based upon a rolling, 12-month summation of the operating hours and fuel usage.

**C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall maintain daily records for this emissions unit which indicate the following information:
  - a. the total volume (in gallons) of low sulfur No. 2 diesel fuel burned in each of these emissions units; and,
  - b. the total hours of operation of each emissions unit.
2. The permittee shall maintain monthly records of the following information:
  - a. Beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the operating hours.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative operating hours for each calendar month.

- b. Beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the diesel usage figures.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative diesel usage for each calendar month.

**D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month diesel fuel usage limitation or rolling 12-month operating hour limitation and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative diesel fuel usage limits and the maximum allowable cumulative operating hour limitation. These reports are due by the date described in Part 1 - 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 each emissions unit;
  - b. the total monthly and annual hours of operation of each emissions unit; and,
  - c. the total annual emissions for NO<sub>x</sub>, CO, PM, SO<sub>2</sub>, and total organics for the previous calendar year.

This annual report shall be submitted by February 31 of each year and shall cover the oil shipments received during the previous 12 month period.

**E. Testing Requirements**

1. Emissions Limitation:

NO<sub>x</sub> emissions from each emissions unit shall not exceed 47.69 lbs/hr and 28.61 TPY; 85.83 TPY total for the facility.

Applicable Compliance Method:

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

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

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

where;

HP = Rated horsepower of each engine,

Ef = Emissions factor for engine in grams per horsepower-hour; 8.23 grams per horsepower-hour,

A = Annual hours of engine operation.

If required pursuant to OAC 3745-15-04, the permittee shall demonstrate compliance with the NO<sub>x</sub> 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.

2. Emissions Limitation:

Carbon monoxide emissions from each emissions unit shall not exceed 3.67 lbs/hr and 2.20 TPY.

Applicable Compliance Method:

Compliance shall be based on the use of AP-42 emissions factors, Section 3.4, the maximum rated heat rate of each emissions unit, and the hours of operation as recorded above. If required pursuant to OAC 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.

3. Emissions Limitation:

Particulate emissions from each emissions unit shall not exceed 0.062 lbs/mmBtu of heat input..

Applicable Compliance Method:

Compliance shall be based upon the use of an emission factor as specified in AP-42, 5th Edition, Compilation of Air Pollution Emission Factors, section 3.4, table 3.4-5, the maximum rated heat rate of this emissions unit, and the hours of operation of this emissions unit as recorded above. If required pursuant to OAC 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 in OAC 3745-17-03(B)(7).

4. Emissions Limitation:

Total organic compound emissions from each emissions unit shall not exceed 1.06 lbs/hr and 0.64 TPY.

Applicable Compliance Method:

Compliance shall be based on the use of AP-42 emissions factors, Section 3.4, the maximum rated heat rate of each emissions unit, and the hours of operation as recorded above.

5. Emissions Limitation:

0.050 pound sulfur dioxide per mmBtu of actual heat input.

Applicable Compliance Method:

Compliance shall be based upon the records required above and the formula referenced in OAC 3745-18-04(F)(2).

6. 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 emission observations in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

**F. Miscellaneous Requirements**

None.