



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL
WAYNE 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: 02-20823

Fac ID: 0285010399

DATE: 10/27/2005

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 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

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

CC: USEPA

NEDO



**Permit To Install
Terms and Conditions**

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

FINAL PERMIT TO INSTALL 02-20823

Application Number: 02-20823
Facility ID: 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
Orrville, Ohio**

Description of proposed emissions unit(s):
Revision of heat input and parameter monitoring.

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

Director

AMP-Ohio Orrville Peaking Station
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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 record keeping 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 record keeping 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.

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.

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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>
PE	2.22
NOx	88.2
CO	6.78
SO2	1.08
VOC	1.95

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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>	OAC rule 3745-18-06(D)
B001 - Caterpillar Model 3516B 2628 BHP (20.02 MMBtu/hr), 1875 KW, diesel fueled engine/generator	OAC rule 3745-31-05(A)(3)	

The requirement of this Permit to Install supercedes the requirements of PTI No. 02-2807 issued on July 14, 1999.

OAC rule 3745-31-05 (C)

OAC rule 3745-17-07

OAC rule 3745-17-11 (B)(5)(b)

AMP-**PTI A****Issued: 10/27/2005**Emissions Unit ID: **B001**

Applicable Emissions
Limitations/Control Measures

PE: 1.24 lbs/hr, 0.74 tpy
NOx: 49 lbs/hr
CO: 3.77 lbs/hr, 2.26 tpy
SO2: 0.05 lb/MMBtu, 1.01 lbs/hr,
0.36 tpy
VOC: 1.09 lbs/hr, 0.65 tpy

The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1) and 3745-17-11(B)(5)(b).

NOx: 29.4 tons per rolling 12-month period.
88.2 tons per rolling 12-month period (facility-wide). See section A.2.a. below.

Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.

0.062 lb PM/MMBtu actual heat input

The emission limitation specified by this rule is less stringent than

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

2. Additional Terms and Conditions

- 2.a** The total NOx emissions from emissions units B001, B002, & B003 at this facility shall not exceed 88.2 tons per year.

B. Operational Restrictions

- 1.** The quality of No. 2 fuel oil received for burning in this emissions unit shall have a combination of sulfur content and heat content sufficient to comply with the allowable sulfur dioxide emission limitation of 0.05 lb/MMBTU of actual heat input and a sulfur content limit of less than or equal to 0.05 percent sulfur by weight.

Compliance with the above-mentioned SO₂ emission limitation shall be determined by using the analytical results provided by the permittee or oil supplier and the calculated SO₂ emission rate for each shipment of oil.

- 2.** The operation of this emissions unit (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 operation hours.
- 3.** The maximum quantity of diesel fuel which may be burned in each of these emissions units (B001, B002, and B003) shall not exceed 154,080 gallons per year, based upon a rolling 12-month summation of the fuel usage.

C. Monitoring and/or Record keeping Requirements

- 1.** The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below.

a. Alternative 1:

For each shipment of oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lb/mmBtu). [The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F)]. A shipment may be comprised of multiple tank truck loads from the same supplier's batch, and the quality of the oil for those loads may be represented by

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PTI A

Issued: 10/27/2005

Emissions Unit ID: **B001**

a single batch analysis from the supplier.

- b. Alternative 2:

The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lb/mmBtu). [The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F)].
 - c. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods (such as, ASTM methods D240 and D4294), or equivalent methods as approved by the Director.
2. 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 burned in each of these emissions units; and,
 - b. The total hours of operation of each emissions unit.
 3. The permittee shall maintain monthly records of the following information:
 - a. The rolling 12-month summation of the operating hours.
 - b. The rolling 12-month summation of the No. 2 fuel oil usage figures.
 4. The permittee shall perform weekly checks, when any/all of emission units B001, B002 and B003 is/are in operation in peaking mode and when weather conditions allow, for any visible particulate emissions from the stack/stacks serving this/these emissions unit(s). The presence or absence of any visible emissions shall be noted in an operation log. If visible emissions are observed, the permittee shall also note the following in the operations log:

- a. The color of the emissions;
- b. Whether the emissions are representative of normal operations;
- c. If the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. The total duration of any visible emission incident; and
- e. Any corrective actions taken to eliminate the visible emissions.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify any of the following:
 - a. Exceedances of the rolling, 12-month No. 2 fuel oil usage limitation,
 - b. Exceedances of the rolling, 12-month operating hour limitation,
 - c. Exceedances of the maximum allowable cumulative No. 2 fuel oil usage limitation, and
 - d. Exceedances of the maximum allowable cumulative operating hour limitation.

These reports are due by the date describe 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_x, CO, PM, SO₂ and total organics for the previous calender year.

AMP-**PTI A****Issued: 10/27/2005**Emissions Unit ID: **B001**

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.

3. The permittee shall submit, on a quarterly basis, copies of the permittee's or oil supplier's analyses for each shipment of oil which is received for burning in this emissions unit. The permittee's or oil supplier's analysis shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil. The following information shall also be included with the copies of the permittee's or oil supplier's analysis:
 - a. The total quantity of oil received in each shipment (gallons);
 - b. The weighted* average sulfur dioxide emission rate (pounds/mmBtu) for the oil received during the calendar month; and
 - c. The weighted* average heat content (Btu/gallon) of the oil received during the calendar month.

*In proportion to the quantity of oil received in each shipment during the calendar month. The quarterly reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarters.

4. The permittee shall submit semiannual written reports that (a) identify all weeks during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

1. Emissions Limitation:

PE: 0.062 lb/MMBTU

Applicable Compliance Method:

If required by the Ohio EPA, the permittee shall demonstrate compliance with the lb/MMBTU emission limitation through emissions tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1- 5.

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Emissions Unit ID: B001

2. Emissions Limitation:

PE: 1.24 lbs/hr

Applicable Compliance Method:

Compliance shall be determined by multiplying the actual heat input of 20.02 MMBTU/hr by the emission rate of 0.062 lb/MMBTU of actual heat input (OAC rule 3745-17-11-B(5))

3. Emissions Limitation:

PE: 0.74 ton per year

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly emission rate, lbs/hr, by the maximum annual hours of operation and divided by 2000 lbs.

4. Emissions Limitation:

NOx: 49 lbs/hr

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

$$E = A*B/C$$

where:

E = hourly NOx emission rate, in lbs/hr

A = rated horsepower of diesel generator, 2628 BHp

B = emission factor for engine in grams per horsepower-hour, 8.23 gr/hp-hr
(provided by facility)

C = 453.6 grams/lb

If required by the Ohio EPA, the permittee shall demonstrate compliance with the lbs/hr emission limitation through emissions tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 7 or 7E.

5. Emissions Limitation:

NOx: 29.40 tons per year

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly emission rate, lbs/hr, by the maximum annual hours of operation and divided by 2000 lbs.

6. Emission Limitation:

NOx: 88.2 tons per year (facility wide)

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PTI A

Issued: 10/27/2005

Emissions Unit ID: **B001**

Applicable Compliance Method:

Compliance shall be based upon the Monitoring and/or Record Keeping requirements specified in Section C.3.

AMP-**PTI A****Issued: 10/27/2005**Emissions Unit ID: **B001****7. Emissions Limitation:**

CO: 3.77 lbs/hr

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

$$E = A*B/C$$

where:

E = hourly CO emission rate based on 1875 Gen. PWR EKW, in lbs/hr

A = hourly CO emission rate based on manufacturer's rating, 3.67 lbs/hr (operated at 1825 Gen PWR EKW) (supplied by facility)

B = Gen. PWR EKW, 1875 (supplied by facility)

C = 1825 Gen. PWR EKW

8. Emissions Limitation:

CO: 2.26 lbs/hr

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly emission rate, lbs/hr, by the maximum annual hours of operation and divided by 2000 lbs.

9. Emissions Limitation:SO₂: 0.05 lb/MMBTU

Applicable Compliance Method:

If required by the Ohio EPA, the permittee shall demonstrate compliance with the lb/MMBTU emission limitation through emissions tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 6A.

10. Emissions Limitation:SO₂: 0.61 lbs/hr

AMP-**PTI A****Issued: 10/27/2005**Emissions Unit ID: **B001**

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

$$E = A*B$$

where:

E = hourly SO₂ emission rate, in lbs/hrA = SO₂ emission factor equation, $1.01*S$ lb/MMBTU
where S is sulfur %, 0.05

B = Maximum heat input capacity, 20.02 MMBTU/hr

11. Emissions Limitation:SO₂: 0.36 ton per year

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly emission rate, lbs/hr, by the maximum annual hours of operation and divided by 2000 lbs.

12. Emissions Limitation:

VOC: 1.09 lbs/hr

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

$$E = A*B/C$$

where:

E = hourly VOC emission rate based on 1875 Gen. PWR EKW, in lbs/hr

A = hourly VOC emission rate based on manufacturer's rating, 1.06 lbs/hr (operated at 1825 Gen PWR EKW) (supplied by facility)

B = Gen. PWR EKW, 1875 (supplied by facility)

C = 1825 Gen. PWR EKW

13. Emissions Limitation:

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Emissions Unit ID: **B001**

VOC: 0.65 lbs/hr

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly emission rate, lbs/hr, by the maximum annual hours of operation and divided by 2000 lbs.

F. Miscellaneous Requirements

None

AMP-**PTI A****Issued: 10/27/2005**Emissions Unit ID: **B002**

Applicable Emissions
Limitations/Control Measures

PE: 1.24 lbs/hr, 0.74 tpy

NOx: 49 lbs/hr

CO: 3.77 lbs/hr, 2.26 tpy

SO₂: 0.05 lb/MMBtu, 1.01 lbs/hr,
0.36 tpy

VOC: 1.09 lbs/hr, 0.65 tpy

The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1) and 3745-17-11(B)(5)(b).

NOx: 29.4 tons per rolling 12-month period.
88.2 tons per rolling 12-month period (facility-wide). See section A.2.a. below.

Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.

0.062 lb PM/MMBTU actual heat input

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

2. Additional Terms and Conditions

- 2.a** The total NOx emissions from emissions units B001, B002, & B003 at this facility shall not exceed 88.2 tons per year.

B. Operational Restrictions

- 1.** The quality of No. 2 fuel oil received for burning in this emissions unit shall have a combination of sulfur content and heat content sufficient to comply with the allowable sulfur dioxide emission limitation of 0.05 lb/MMBTU of actual heat input and a sulfur content limit of less than or equal to 0.05 percent sulfur by weight.

Compliance with the above-mentioned SO₂ emission limitation shall be determined by using the analytical results provided by the permittee or oil supplier and the calculated SO₂ emission rate for each shipment of oil.

- 2.** The operation of this emissions unit (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 operation hours.
- 3.** The maximum quantity of diesel fuel which may be burned in each of these emissions units (B001, B002, and B003) shall not exceed 154,080 gallons per year, based upon a rolling 12-month summation of the fuel usage.

C. Monitoring and/or Record keeping Requirements

- 1.** The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below.

a. Alternative 1:

For each shipment of oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lb/mmBtu). [The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F)]. A shipment may be comprised of multiple tank truck loads from the same supplier's batch, and the quality of the oil for those loads may be represented by

a single batch analysis from the supplier.

b. Alternative 2:

The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lb/mmBtu). [The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F)].

c. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods (such as, ASTM methods D240 and D4294), or equivalent methods as approved by the Director.

2. 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 burned in each of these emissions units; and,
 - b. The total hours of operation of each emissions unit.
3. The permittee shall maintain monthly records of the following information:
 - a. The rolling 12-month summation of the operating hours.
 - b. The rolling 12-month summation of the No. 2 fuel oil usage figures.
4. The permittee shall perform weekly checks, when any/all of emission units B001, B002 and B003 is/are in operation in peaking mode and when weather conditions allow, for any visible particulate emissions from the stack/stacks serving this/these emissions

Emissions Unit ID: **B002**

unit(s). The presence or absence of any visible emissions shall be noted in an operation log. If visible emissions are observed, the permittee shall also note the following in the operations log:

- a. The color of the emissions;
- b. Whether the emissions are representative of normal operations;
- c. If the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. The total duration of any visible emission incident; and
- e. Any corrective actions taken to eliminate the visible emissions.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify any of the following:
 - a. Exceedances of the rolling, 12-month No. 2 fuel oil usage limitation,
 - b. Exceedances of the rolling, 12-month operating hour limitation,
 - c. Exceedances of the maximum allowable cumulative No. 2 fuel oil usage limitation, and
 - d. Exceedances of the maximum allowable cumulative operating hour limitation.

These reports are due by the date describe 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_x, CO, PM, SO₂ 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.

3. The permittee shall submit, on a quarterly basis, copies of the permittee's or oil supplier's analyses for each shipment of oil which is received for burning in this emissions unit. The permittee's or oil supplier's analysis shall document the sulfur

content (percent) and heat content (Btu/gallon) for each shipment of oil. The following information shall also be included with the copies of the permittee's or oil supplier's analysis:

- a. The total quantity of oil received in each shipment (gallons);
- b. The weighted* average sulfur dioxide emission rate (pounds/mmBtu) for the oil received during the calendar month; and
- c. The weighted* average heat content (Btu/gallon) of the oil received during the calendar month.

*In proportion to the quantity of oil received in each shipment during the calendar month. The quarterly reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarters.

4. The permittee shall submit semiannual written reports that (a) identify all weeks during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

1. Emissions Limitation:

PE: 0.062 lb/MMBTU

Applicable Compliance Method:

If required by the Ohio EPA, the permittee shall demonstrate compliance with the lb/MMBTU emission limitation through emissions tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1- 5.

2. Emissions Limitation:

PE: 1.24 lbs/hr

Emissions Unit ID: **B002**

Applicable Compliance Method:

Compliance shall be determined by multiplying the actual heat input of 20.02 MMBTU/hr by the emission rate of 0.062 lb/MMBTU of actual heat input (OAC rule 3745-17-11-B(5))

3. Emissions Limitation:

PE: 0.74 ton per year

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly emission rate, lbs/hr, by the maximum annual hours of operation and divided by 2000 lbs.

4. Emissions Limitation:

NOx: 49 lbs/hr

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

$$E = A*B/C$$

where:

E = hourly NOx emission rate, in lbs/hr

A = rated horsepower of diesel generator, 2628 BHp

B = emission factor for engine in grams per horsepower-hour, 8.23 gr/hp-hr
 (provided by facility)

C = 453.6 grams/lb

If required by the Ohio EPA, the permittee shall demonstrate compliance with the lbs/hr emission limitation through emissions tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 7 or 7E.

5. Emissions Limitation:

NOx: 29.40 tons per year

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Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly emission rate, lbs/hr, by the maximum annual hours of operation and divided by 2000 lbs.

6. Emission Limitation:

NOx: 88.2 tons per year (facility wide)

Applicable Compliance Method:

Compliance shall be based upon the Monitoring and/or Record Keeping requirements specified in Section C.3.

7. Emissions Limitation:

CO: 3.77 lbs/hr

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

$$E = A*B/C$$

where:

E = hourly CO emission rate based on 1875 Gen. PWR EKW, in lbs/hr

A = hourly CO emission rate based on manufacturer's rating, 3.67 lbs/hr (operated at 1825 Gen PWR EKW) (supplied by facility)

B = Gen. PWR EKW, 1875 (supplied by facility)

C = 1825 Gen. PWR EKW

8. Emissions Limitation:

CO: 2.26 lbs/hr

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly emission rate, lbs/hr, by the maximum annual hours of operation and divided by 2000 lbs.

9. Emissions Limitation:

SO₂: 0.05 lb/MMBTU

Applicable Compliance Method:

If required by the Ohio EPA, the permittee shall demonstrate compliance with the lb/MMBTU emission limitation through emissions tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 6A.

10. Emissions Limitation:

SO₂: 0.61 lbs/hr

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

$$E = A * B$$

where:

E = hourly SO₂ emission rate, in lbs/hr

A = SO₂ emission factor equation, $1.01 * S$ lb/MMBTU
where S is sulfur %, 0.05

B = Maximum heat input capacity, 20.02 MMBTU/hr

11. Emissions Limitation:

SO₂: 0.36 ton per year

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly emission rate, lbs/hr, by the maximum annual hours of operation and divided by 2000 lbs.

12. Emissions Limitation:

VOC: 1.09 lbs/hr

Applicable Compliance Method:

AMP-Ohio Orrville Peaking Station
PTI Application: 02 2022
Issue

Facility ID: 0285010399

Emissions Unit ID: **B002**

Compliance shall be determined by using the following equation:

$$E = A*B/C$$

where:

E = hourly VOC emission rate based on 1875 Gen. PWR EKW, in lbs/hr

A = hourly VOC emission rate based on manufacturer's rating, 1.06 lbs/hr (operated at 1825 Gen PWR EKW) (supplied by facility)

B = Gen. PWR EKW, 1875 (supplied by facility)

C = 1825 Gen. PWR EKW

13. Emissions Limitation:

VOC: 0.65 lbs/hr

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly emission rate, lbs/hr, by the maximum annual hours of operation and divided by 2000 lbs.

F. Miscellaneous Requirements

None

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Applicable Emissions
Limitations/Control Measures

PE: 1.24 lbs/hr, 0.74 tpy
NOx: 49 lbs/hr
CO: 3.77 lbs/hr, 2.26 tpy
SO2: 0.05 lb/MMBtu, 1.01 lbs/hr,
0.36 tpy
VOC: 1.09 lbs/hr, 0.65 tpy

The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1) and 3745-17-11(B)(5)(b).

NOx: 29.4 tons per rolling
12-month period.
88.2 tons per rolling
12-month period
(facility-wide). See
section A.2.a. below.

Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.

0.062 lb PM/MMBTU actual
heat input

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

2. Additional Terms and Conditions

- 2.a The total NOx emissions from emissions units B001, B002, & B003 at this facility shall not exceed 88.2 tons per year.

B. Operational Restrictions

1. The quality of No. 2 fuel oil received for burning in this emissions unit shall have a combination of sulfur content and heat content sufficient to comply with the allowable sulfur dioxide emission limitation of 0.05 lb/MMBTU of actual heat input and a sulfur content limit of less than or equal to 0.05 percent sulfur by weight.

Compliance with the above-mentioned SO₂ emission limitation shall be determined by using the analytical results provided by the permittee or oil supplier and the calculated SO₂ emission rate for each shipment of oil.

2. The operation of this emissions unit (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 operation hours.
3. The maximum quantity of diesel fuel which may be burned in each of these emissions units (B001, B002, and B003) shall not exceed 154,080 gallons per year, based upon a rolling 12-month summation of the fuel usage.

C. Monitoring and/or Record keeping Requirements

1. The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below.

- a. Alternative 1:

For each shipment of oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lb/mmBtu). [The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F)]. A shipment may be comprised of multiple tank truck loads from the same supplier's batch, and the quality of the oil for those loads may be represented by a single batch analysis from the supplier.

- b. Alternative 2:

The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lb/mmBtu). [The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F)].
 - c. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods (such as, ASTM methods D240 and D4294), or equivalent methods as approved by the Director.
2. 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 burned in each of these emissions units; and,
 - b. The total hours of operation of each emissions unit.
 3. The permittee shall maintain monthly records of the following information:
 - a. The rolling 12-month summation of the operating hours.
 - b. The rolling 12-month summation of the No. 2 fuel oil usage figures.
 4. The permittee shall perform weekly checks, when any/all of emission units B001, B002 and B003 is/are in operation in peaking mode and when weather conditions allow, for any visible particulate emissions from the stack/stacks serving this/these emissions unit(s). The presence or absence of any visible emissions shall be noted in an

Emissions Unit ID: **B003**

operation log. If visible emissions are observed, the permittee shall also note the following in the operations log:

- a. The color of the emissions;
- b. Whether the emissions are representative of normal operations;
- c. If the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. The total duration of any visible emission incident; and
- e. Any corrective actions taken to eliminate the visible emissions.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify any of the following:
 - a. Exceedances of the rolling, 12-month No. 2 fuel oil usage limitation,
 - b. Exceedances of the rolling, 12-month operating hour limitation,
 - c. Exceedances of the maximum allowable cumulative No. 2 fuel oil usage limitation, and
 - d. exceedances of the maximum allowable cumulative operating hour limitation.

These reports are due by the date describe 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_x, CO, PM, SO₂ and total organics for the previous calender 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.

3. The permittee shall submit, on a quarterly basis, copies of the permittee's or oil supplier's analyses for each shipment of oil which is received for burning in this emissions unit. The permittee's or oil supplier's analysis shall document the sulfur

content (percent) and heat content (Btu/gallon) for each shipment of oil. The following information shall also be included with the copies of the permittee's or oil supplier's analysis:

- a. The total quantity of oil received in each shipment (gallons);
- b. The weighted* average sulfur dioxide emission rate (pounds/mmBtu) for the oil received during the calendar month; and
- c. The weighted* average heat content (Btu/gallon) of the oil received during the calendar month.

*In proportion to the quantity of oil received in each shipment during the calendar month. The quarterly reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarters.

4. The permittee shall submit semiannual written reports that (a) identify all weeks during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Northeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

E. Testing Requirements

1. Emissions Limitation:

PE: 0.062 lb/MMBTU

Applicable Compliance Method:

If required by the Ohio EPA, the permittee shall demonstrate compliance with the lb/MMBTU emission limitation through emissions tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1- 5.

2. Emissions Limitation:

PE: 1.24 lbs/hr

AMP-Ohio Orrville Peaking Station

PTI Application: 02-20022

Issue:

Facility ID: 0285010399

Emissions Unit ID: B003

Applicable Compliance Method:

Compliance shall be determined by multiplying the actual heat input of 20.02 MMBTU/hr by the emission rate of 0.062 lb/MMBTU of actual heat input (OAC rule 3745-17-11-B(5))

3. Emissions Limitation:

PE: 0.74 ton per year

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly emission rate, lbs/hr, by the maximum annual hours of operation and divided by 2000 lbs.

4. Emissions Limitation:

NOx: 49 lbs/hr

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

$$E = A*B/C$$

where:

E = hourly NOx emission rate, in lbs/hr

A = rated horsepower of diesel generator, 2628 BHp

B = emission factor for engine in grams per horsepower-hour, 8.23 gr/hp-hr
(provided by facility)

C = 453.6 grams/lb

If required by the Ohio EPA, the permittee shall demonstrate compliance with the lbs/hr emission limitation through emissions tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 7 or 7E.

5. Emissions Limitation:

NOx: 29.40 tons per year

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly emission rate, lbs/hr, by the maximum annual hours of operation and divided by 2000 lbs.

6. Emission Limitation:

NOx: 88.2 tons per year (facility wide)

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Applicable Compliance Method:

Compliance shall be based upon the Monitoring and/or Record Keeping requirements specified in Section C.3.

7. Emissions Limitation:

CO: 3.77 lbs/hr

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

$$E = A*B/C$$

where:

E = hourly CO emission rate based on 1875 Gen. PWR EKW, in lbs/hr

A = hourly CO emission rate based on manufacturer's rating, 3.67 lbs/hr (operated at 1825 Gen PWR EKW) (supplied by facility)

B = Gen. PWR EKW, 1875 (supplied by facility)

C = 1825 Gen. PWR EKW

8. Emissions Limitation:

CO: 2.26 lbs/hr

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly emission rate, lbs/hr, by the maximum annual hours of operation and divided by 2000 lbs.

9. Emissions Limitation:

SO₂: 0.05 lb/MMBTU

Applicable Compliance Method:

If required by the Ohio EPA, the permittee shall demonstrate compliance with the lb/MMBTU emission limitation through emissions tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 6A.

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Emissions Unit ID: **B003**

10. Emissions Limitation:

SO₂: 0.61 lbs/hr

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

$$E = A*B$$

where:

E = hourly SO₂ emission rate, in lbs/hr

A = SO₂ emission factor equation, $1.01*S$ lb/MMBTU
where S is sulfur %, 0.05

B = Maximum heat input capacity, 20.02 MMBTU/hr

11. Emissions Limitation:

SO₂: 0.36 ton per year

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly emission rate, lbs/hr, by the maximum annual hours of operation and divided by 2000 lbs.

12. Emissions Limitation:

VOC: 1.09 lbs/hr

Applicable Compliance Method:

Compliance shall be determined by using the following equation:

$$E = A*B/C$$

where:

E = hourly VOC emission rate based on 1875 Gen. PWR EKW, in lbs/hr

A = hourly VOC emission rate based on manufacturer's rating, 1.06 lbs/hr (operated at 1825 Gen PWR EKW) (supplied by facility)

B = Gen. PWR EKW, 1875 (supplied by facility)

C = 1825 Gen. PWR EKW

13. Emissions Limitation:

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PTI Application: 02 2022
Issue

Facility ID: 0285010399

Emissions Unit ID: B003

VOC: 0.65 lbs/hr

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Emissions Unit ID: **B003**

Applicable Compliance Method:

Compliance shall be determined by multiplying the hourly emission rate, lbs/hr, by the maximum annual hours of operation and divided by 2000 lbs.

F. Miscellaneous Requirements

None