



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL
LORAIN COUNTY**

CERTIFIED MAIL

Street Address:

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

Mailing Address:

Lazarus Gov.
Center

Application No: 02-14231

DATE: 3/27/2001

Oberlin Municipal Light and Power
Steve Dupee
289 South Professor St
Oberlin, OH 44074

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
236 East Town Street, Room 300
Columbus, Ohio 43215

Very truly yours,

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

CC: USEPA

NEDO



STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

Permit To Install

Issue Date: 3/27/2001

FINAL PERMIT TO INSTALL 02-14231

Application Number: 02-14231
APS Premise Number: 0247100320
Permit Fee: **\$800**
Name of Facility: Oberlin Municipal Light and Power
Person to Contact: Steve Dupee
Address: 289 South Professor St
Oberlin, OH 44074

Location of proposed air contaminant source(s) [emissions unit(s)]:
**289 South Professor St
Oberlin, Ohio**

Description of proposed emissions unit(s):
2 Fairbanks-Morse 28.67 mmBtu/hr input dual fuel electric generating 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



Director

Part I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install General Terms and Conditions

1. Monitoring and Related Recordkeeping and Reporting Requirements

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - i. The date, place (as defined in the permit), and time of sampling or measurements.
 - ii. The date(s) analyses were performed.
 - iii. The company or entity that performed the analyses.
 - iv. The analytical techniques or methods used.
 - v. The results of such analyses.
 - vi. The operating conditions existing at the time of sampling or measurement.
- b. 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.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
 - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. The written 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. See B.11 below if no deviations occurred during the quarter.

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
- iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

2. 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, i.e., upset, 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. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to 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 emission unit(s) that is (are) served by such control system(s).

3. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

4. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

5. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

6. General Requirements

- a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.
- b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d. This permit does not convey any property rights of any sort, or any exclusive privilege.
- e. 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 request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

7. 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.

8. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are

required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

9. Compliance Requirements

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
 - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
 - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
 - i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

10. Permit To Operate Application

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).
- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. 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 source(s) covered by this permit.

11. 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.

B. State Only Enforceable 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 of state-only enforceable 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 state-only required 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. 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.

4. 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.

5. 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.

6. 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 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.

7. 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.

8. 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).

9. 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.

10. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

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.

C. 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>
SO2	3.4 TPY
CO	71.9 TPY
NOx	31.7 TPY
Particulate	3.9 TPY
VOC	17 TPY

Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions

None.

B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions

None.

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property,
and/or Equipment

Applicable Rules/Requirements

B009 - Fairbanks-Morse
4,410 BHP (28.67 mmBtu
input; 3,165 kWe output)
dual fuel/diesel fuel electric
generating unit (Oberlin
engine #2)

OAC rule 3745-31-05(A)(3)

OAC rule 3745-31-05(D)

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

OAC rule 3745-18-06(G)

OAC rule 3745-17-07(A)

Applicable Emissions
Limitations/Control Measures

Sulfur dioxide emissions shall not exceed 1.56 lbs/hr and 3.4 TPY (in combination with emissions unit B010). See A.I.2.a below.

Emissions of nitrogen oxides shall not exceed 58.33 lbs/hr.

Carbon monoxide emissions shall not exceed 33.06 lbs/hr.

Particulate emissions shall not exceed 3.9 TPY (in combination with emissions unit B010).

Emissions of volatile organic compounds shall not exceed 7.78 lbs/hr.

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

The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-11(B)(5) and 3745-31-05(D).

Emissions of nitrogen oxides shall not exceed 31.7 TPY (in combination with emissions unit B010). See A.I.2.b below.

Carbon monoxide emissions shall not exceed 71.9 TPY (in combination with emissions unit B010). See A.I.2.c below.

Emissions of volatile organic compounds shall not exceed 17 TPY (in combination with emissions unit B010). See A.I.2.d below.

Particulate emissions shall not exceed 0.062 lb/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).

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** Dual fuel is defined in AP-42, Section 3.4, Edition 10/96, as 95 percent natural gas and 5 percent diesel fuel. According to AP-42, dual fuel engines were developed to obtain compression ignition performance and the economy of natural gas, using approximately 5 percent diesel fuel to ignite the natural gas.
- 2.b** The combined emissions of NO_x from this emissions unit (B009) and emissions unit B010 shall not exceed 31.7 tons per year, based upon a rolling, 12-month summation of the NO_x emissions.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the combined emission levels specified in the following table from this emissions unit (B009) and emissions unit B010 when firing with dual fuel and number 2 diesel fuel:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Emissions</u> <u>of NOx (Tons)</u>
1	5.1
1-2	10.5
1-3	15.8
1-4	18.4
1-5	21.2
1-6	23.8
1-7	25.0
1-8	26.3
1-9	27.6
1-10	29.2
1-11	30.4
1-12	31.7

After the first 12 calendar months of operation following the issuance of this permit, compliance shall be based upon the combined rolling, 12-month summation of the NOx emissions from this emissions unit (B009) and emissions unit B010.

- 2.c** The combined emissions of CO from this emissions unit (B009) and emissions unit B010 shall not exceed 71.9 tons per year, based upon a rolling, 12-month summation of the CO emissions.

To ensure enforceability during the first 12

calendar months of operation following the issuance of this permit, the permittee shall not exceed the combined emission levels specified in the following table from this emissions unit (B009) and emissions unit B010 when firing with dual fuel and number 2 diesel fuel:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Emissions of CO (Tons)</u>
1	11.5
1-2	23.7
1-3	36
1-4	41.7
1-5	48.2
1-6	54
1-7	56.8
1-8	59.7
1-9	62.6

1-10	66.1
1-11	69
1-12	71.9

After the first 12 calendar months of operation following the issuance of this permit, compliance shall be based upon the combined rolling, 12-month summation of the CO emissions from this emissions unit (B009) and emissions unit B010.

2.d The combined emissions of VOC from this emissions unit (B009) and emissions unit B010 shall not exceed 17 tons per year, based upon a rolling, 12-month summation of the VOC emissions.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the combined emission levels specified in the following table from this emissions unit (B009) and emissions unit B010 when firing with dual fuel and number 2 diesel fuel:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Emissions</u> <u>of VOC (Tons)</u>
1	2.7

1-2	5.6
1-3	8.5
1-4	9.9
1-5	11.4
1-6	12.8
1-7	13.4
1-8	14.1
1-9	14.8
1-10	15.6
1-11	16.3
1-12	17

After the first 12 calendar months of operation following the issuance of this permit, compliance shall be based upon the combined rolling, 12-month summation of the VOC emissions from this emissions unit (B009) and emissions unit B010.

II. Operational Restrictions

1. The permittee shall burn only natural gas and/or number 2 diesel fuel in this emissions unit.
2. The total annual operating hours for this emissions unit (B009) and emissions unit B010, combined, measured on a rolling, 12-month summation shall not exceed 4348 when firing with only dual fuel.
3. The total annual operating hours for this emissions unit (B009) and emissions unit B010, combined, measured on a rolling, 12-month summation shall not exceed 1086 when firing with only number 2 diesel fuel.
4. To ensure enforceability during the first twelve (12) months of operation following startup of emissions units B009 and B010, the permittee shall not exceed the operating hours limitations specified in the following table:

<u>Month(s)</u>	<u>Allowable Cumulative Total Hours</u>	<u>Allowable Cumulative Total Hours</u> <u>of Operation Firing with Dual Fuel</u>	<u>of</u> <u>Operati</u>
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Emissions Unit ID: B009

on
Firing
with
Diesel

		<u>Only*</u>	<u>Fuel Only*</u>
1	695.7		173.8
1-2	1434.8		358.4
1-3	2174		543
1-4	2521.8		629.9
1-5	2913.2		727.6
1-6	3261		814.5
1-7	3434.9		857.9
1-8	3608.8		901.4
1-9	3782.8		944.8
1-10	4000.2		999.1
1-11	4174.1		1042.6
1-12	4348		1086

* The allowable cumulative total hours of operation for emissions units B009 and B010, combined, shall not exceed 4348 hours per year while firing with dual fuel only as defined in Section A.I.2.a of these terms and conditions.

After the first 12 calendar months of operation following the startup of emissions units B009 and B010, compliance with the annual operating hours limitations shall be based on rolling, 12-month summations of the operating hours with each type of fuel.

5. The quality of the diesel fuel burned in this emissions unit shall meet, on an "as received" basis, a sulfur content which is sufficient to comply with the allowable sulfur dioxide emissions limitation of 1.56 pounds per hour.

III. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas and/or number 2 diesel fuel, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall maintain monthly records of the following information:
 - a. the total volume of dual fuel as defined in Section A.I.2.a of these terms and conditions burned in emissions units B009 and B010;
 - b. the total volume of diesel fuel burned in emissions units B009 and B010;

- c. the total hours of operation of emissions units B009 and B010 with each type of fuel; and
- d. beginning after the first 12 calendar months of operation following startup of this emissions unit, the rolling, 12-month summation of the operating hours with each type of fuel.

Also, during the first 12 calendar months of operation following startup of this emissions unit, the permittee shall record the cumulative operating hours with each type of fuel for each calendar month.

3. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content and heat content.
4. The permittee shall calculate and record, on a monthly basis, the total emissions of NO_x from emissions units B009 and B010, utilizing methods of calculation specified in Section A.V of these terms and conditions.
5. The permittee shall calculate and record, on a monthly basis, the total emissions of CO from emissions units B009 and B010, utilizing methods of calculation specified in Section A.V of these terms and conditions.
6. The permittee shall calculate and record, on a monthly basis, the total emissions of VOC from emissions units B009 and B010, utilizing methods of calculation specified in Section A.V of these terms and conditions.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or number 2 diesel fuel was burned in this emissions unit. Each report shall be submitted within 45 days after the deviation occurs.
2. The permittee shall notify the Ohio EPA Northeast District Office in writing of any record which shows a deviation from the restrictions in operating hours listed in Section A.II above. The notification shall include a copy of such record and shall be sent to the Ohio EPA Northeast District Office within 45 days after the deviation occurs.
3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the

rolling, 12-month emission limitations for NO_x, CO, and VOC and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. Each report shall be submitted to the Ohio EPA Northeast District within 45 days after the deviation occurs.

4. The permittee shall submit an annual report which provides a summary of the total annual hours of operation of this emissions unit and the annual NO_x, CO, and VOC emissions from this emissions unit. This report shall be submitted by February 15 of each year for operations data recorded during the previous calendar year.
5. The permittee shall submit, on a quarterly basis, records of the permittee's or diesel fuel supplier's analyses for each shipment of diesel which is received for burning in this emissions unit. The permittee's or diesel fuel supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of diesel fuel. The following information shall also be included in the records of the permittee's or diesel fuel supplier's analyses:
 - a. the total quantity of diesel fuel received in each shipment (gallons);
 - b. the weighted* average sulfur dioxide emission rate (pounds/mmBtu) for the diesel fuel received during the calendar month; and
 - c. the weighted* average heat content (Btu/gallon) of the diesel fuel received during the calendar month.

*In proportion to the quantity of diesel fuel received in each shipment during the calendar month. These quarterly reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall cover the diesel fuel shipments received during the previous calendar quarters.

V. Testing Requirements

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 180 days of startup of the emissions unit.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for NO_x.
 - c. The following test method(s) shall be employed to demonstrate compliance with the

Emissions Unit ID: B009

allowable mass emission rate(s): for NO_x, Method 7 or 7E of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA Northeast District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Northeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Northeast District Office.

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

- a. Emission Limitations:

Sulfur dioxide emissions shall not exceed 1.56 lbs/hr and 3.4 TPY (in combination with emissions unit B010).

Applicable Compliance Methods:

- i. The pound per hour emission limitation of 1.56 lbs/hr is based upon the manufacturer's emission factor for this emissions unit.
- ii. If required, the permittee shall demonstrate compliance with the hourly emission rate in accordance with 40 CFR Part 60,

Appendix A, Methods 6 or 6C and the procedures specified in OAC rule 3745-18-04.

- iii. The annual limit of 3.4 TPY is based on the allowable hourly limit of 1.56 lbs/hr multiplied by the maximum allowable operating hours (4348 hrs/yr), and divided by 2000 lbs/ton. Therefore, provided compliance is demonstrated with the hourly and operating hours limitations, compliance will also be demonstrated with the annual limitation.

b. Emission Limitation:

Carbon monoxide emissions shall not exceed 33.06 lbs/hr.

Applicable Compliance Methods:

- i. The pound per hour emission limitation of 33.06 lbs/hr is based upon the manufacturer's emission factor for this emissions unit.
- ii. If required, the permittee shall demonstrate compliance with the hourly emission rate in accordance with 40 CFR Part 60, Appendix A, Methods 10 or 10A.

c. Emission Limitation:

Carbon monoxide emissions shall not exceed 71.9 TPY (in combination with emissions unit B010).

Applicable Compliance Methods:

The annual limit of 71.9 TPY is based on the allowable hourly limit of 33.06 lbs/hr multiplied by the maximum allowable operating hours (4348 hrs/yr), and divided by 2000 lbs/ton. Therefore, provided compliance is demonstrated with the hourly and operating hours limitations, compliance will also be demonstrated with the annual limitation.

d. Emission Limitation:

Emissions of nitrogen oxides shall not exceed 58.33 lbs/hr.

Applicable Compliance Method:

The pound per hour emission limitation of 58.33 lbs/hr is based upon the manufacturer's emission factor for this emissions unit.

e. Emission Limitation:

Emissions of nitrogen oxides shall not exceed 31.7 TPY (in combination with emissions unit B010).

Applicable Compliance Method:

- i. The pound per hour emission limitation of 58.33 lbs/hr is based upon the manufacturer's emission factor for this emissions unit.
- ii. To determine the actual annual emission rate for NOx from burning dual fuel, the following equation shall be used:

$$E (\text{NOx dual fuel}) = 14.58 \text{ lbs/hr} \times T \times 1$$

ton/2000 lbs

Where

E (NO_x dual fuel) = annual NO_x emission rate from emissions units B009 and B010 when employing dual fuel, in tons/year;

14.58 lbs/hr = manufacturer's emission factor for emissions units B009 and B010 when employing dual fuel;

T = actual operating hours per year of this emissions unit (B009) and emissions unit B010 when employing dual fuel; and

1 ton/2000 lbs = conversion of lbs to tons.

- iii. To determine the actual annual emission rate for NO_x from burning diesel fuel, the following equation shall be used:

$$E (\text{NO}_x \text{ diesel fuel}) = 58.33 \text{ lbs/hr} \times T \times 1 \text{ ton/2000 lbs}$$

Where

E (NO_x diesel fuel) = annual NO_x emission rate from emissions units B009 and B010 when employing diesel fuel, in tons/year;

58.33 lbs/hr = manufacturer's emission factor for emissions units B009 and B010 when employing diesel fuel;

T = actual operating hours per year of this emissions unit (B009) and emissions unit B010 when employing diesel fuel; and

1 ton/2000 lbs = conversion of lbs to tons.

- iv. To determine the actual annual emission rate for NO_x from burning dual fuel and diesel fuel, combined, the following equation shall be used:

$$E (\text{NO}_x \text{ total}) = E (\text{NO}_x \text{ dual fuel}) + E (\text{NO}_x \text{ diesel fuel})$$

Where

$E (\text{NO}_x \text{ total})$ = actual total annual NO_x emission rate from emissions units B009 and B010, in tons/year;

$E (\text{NO}_x \text{ dual fuel})$ = annual NO_x emission rate from emissions units B009 and B010 when employing dual fuel, in tons/year; and

$E (\text{NO}_x \text{ diesel fuel})$ = annual NO_x emission rate from emissions units B009 and B010 when employing diesel fuel, in tons/year.

- f. Emission Limitation:

Particulate emissions shall not exceed 3.9 TPY (in combination with emissions unit B010).

Applicable Compliance Method:

To determine the actual annual particulate emission rate, the following equation shall be used:

$$E (\text{particulate}) = 0.062 \text{ lb/mmBtu} \times 28.80 \text{ mmBtu/hr} \times T \times 1 \text{ ton/2000 lbs}$$

Where

$E (\text{particulate})$ = annual particulate emission rate from emissions units B009 and B010, in tons/year;

0.062 lb/mmBtu = emission limit from OAC rule 3745-17-11(B)(5)(b);

28.80 mmBtu/hr = maximum heat input of this emissions unit (B009) and emissions unit B010;

T = actual operating hours per year of this emissions unit (B009) and emissions unit B010;
and

1 ton/2000 lbs = conversion of lbs to tons.

g. Emission Limitation:

Emissions of volatile organic compounds shall not exceed 7.78 lbs/hr.

Applicable Compliance Method:

- i. The pound per hour emission limitation of 7.78 lbs/hr is based upon the manufacturer's emission factor for this emissions unit.
- ii. If required, the permittee shall demonstrate compliance with the hourly emission rate in accordance with 40 CFR Part 60, Appendix A, Method 25.

h. Emission Limitation:

Emissions of volatile organic compounds shall not exceed 17 TPY (in combination with emissions unit B010).

Applicable Compliance Method:

The annual limit of 17 TPY is based on the allowable hourly limit of 7.78 lbs/hr multiplied by the maximum allowable operating hours (4348 hrs/yr), and divided by 2000 lbs/ton. Therefore, provided compliance is demonstrated with the hourly and operating hours limitations, compliance will also be demonstrated with the annual limitation.

i. Emission Limitations:

Particulate emissions shall not exceed 0.062 lb/mmBtu (in combination with emissions unit B010).

Applicable Compliance Method:

- i. The pound per mmBtu emission limitation of 0.062 lb/mmBtu is based upon OAC rule 3745-17-11(B)(5)(b).
- ii. If required, the permittee shall demonstrate compliance in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10).

j. Emission Limitation:

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

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible emission limitation through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None.

B. State Only Enforceable Section

I. 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>
B009 - Fairbanks-Morse 4,410 BHP (28.67 mmBtu input; 3,165 kWe output) dual fuel electric generating unit (Oberlin engine #2)	None.	None.

2. Additional Terms and Conditions

- 2.a None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

None.

VI. Miscellaneous Requirements

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Oberlin

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Issued: 3/27/2001

Emissions Unit ID: B009

None.

Applicable Emissions
Limitations/Control
Measures

Sulfur dioxide emissions shall not exceed 1.56 lbs/hr and 3.4 TPY (in combination with emissions unit B009). See A.I.2.a below.

Emissions of nitrogen oxides shall not exceed 58.33 lbs/hr.

Carbon monoxide emissions shall not exceed 33.06 lbs/hr.

Particulate emissions shall not exceed 3.9 TPY (in combination with emissions unit B009).

Emissions of volatile organic compounds shall not exceed 7.78 lbs/hr.

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

The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-11(B)(5) and 3745-31-05(D).

Emissions of nitrogen oxides shall not exceed 31.7 TPY (in combination with emissions unit B010). See A.I.2.b below.

Carbon monoxide emissions shall not exceed 71.9 TPY (in combination with emissions unit B010). See A.I.2.c below.

Emissions of volatile organic compounds shall not exceed 17 TPY (in combination with emissions unit B010). See A.I.2.d below.

Particulate emissions shall not exceed 0.062 lb/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).

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

Emissions Unit ID: B010

2. Additional Terms and Conditions

- 2.a** Dual fuel is defined in AP-42, Section 3.4, Edition 10/96, as 95 percent natural gas and 5 percent diesel fuel. According to AP-42, dual fuel engines were developed to obtain compression ignition performance and the economy of natural gas, using approximately 5 percent diesel fuel to ignite the natural gas.
- 2.b** The combined emissions of NO_x from this emissions unit (B010) and emissions unit B009 shall not exceed 31.7 tons per year, based upon a rolling, 12-month summation of the NO_x emissions.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the combined emission levels specified in the following table from this emissions unit (B010) and emissions unit B009 when firing with dual fuel and number 2 diesel fuel:

<u>Month(s)</u>	<u>of NOx (Tons)</u>	<u>Maximum Allowable Cumulative Emissions</u>
1	5.1	
1-2	10.5	
1-3	15.8	
1-4	18.4	
1-5	21.2	
1-6	23.8	
1-7	25.0	
1-8	26.3	
1-9	27.6	
1-10	29.2	
1-11	30.4	
1-12	31.7	

After the first 12 calendar months of operation following the issuance of this permit, compliance shall be based upon the combined rolling, 12-month summation of the NOx emissions from this emissions unit (B010) and emissions unit B009.

- 2.c** The combined emissions of CO from this emissions unit (B010) and emissions unit B009 shall not exceed 71.9 tons per year, based upon a rolling, 12-month summation of the CO emissions.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the combined emission levels specified in the following table from this emissions unit (B010) and emissions unit B009 when firing with dual fuel and number 2 diesel fuel:

Maximum Allowable

<u>Month(s)</u>	<u>of CO (Tons)</u>	<u>Cumul ative Emissi ons</u>
1	11.5	
1-2	23.7	
1-3	36	
1-4	41.7	
1-5	48.2	
1-6	54	
1-7	56.8	
1-8	59.7	
1-9	62.6	
1-10	66.1	
1-11	69	
1-12	71.9	

After the first 12 calendar months of operation following the issuance of this permit, compliance shall be based upon the combined rolling, 12-month summation of the CO emissions from this emissions unit (B010) and emissions unit B009.

- 2.d** The combined emissions of VOC from this emissions unit (B010) and emissions unit B009 shall not exceed 17 tons per year, based upon a rolling, 12-month summation of the VOC emissions.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the combined emission levels specified in the following table from this emissions unit (B010) and emissions unit B009 when firing with dual fuel and number 2 diesel fuel:

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Issued

<u>Month(s)</u>	<u>Emissions Unit ID: B010 of VOC (Tons)</u>
1	2.7
1-2	5.6
1-3	8.5
1-4	9.9
1-5	11.4
1-6	12.8
1-7	13.4
1-8	14.1
1-9	14.8
1-10	15.6
1-11	16.3
1-12	17

After the first 12 calendar months of operation following the issuance of this permit, compliance shall be based upon the combined rolling, 12-month summation of the VOC emissions from this emissions unit (B010) and emissions unit B009.

II. Operational Restrictions

1. The permittee shall burn only natural gas and/or number 2 diesel fuel in this emissions unit.
2. The total annual operating hours for this emissions unit (B010) and emissions unit B009, combined, measured on a rolling, 12-month summation shall not exceed 4348 when firing with only dual fuel.
3. The total annual operating hours for this emissions unit (B010) and emissions unit B009, combined, measured on a rolling, 12-month summation shall not exceed 1086 when firing with only number 2 diesel fuel.
4. To ensure enforceability during the first twelve (12) months of operation following startup of emissions units B009 and B010, the permittee shall not exceed the operating hours limitations specified in the following table:

<u>Month(s)</u>	<u>Allowable Cumulative Total Hours of Operation Firing with Dual Fuel Only*</u>	<u>Allowable Cumulative Total Hours of Operation Firing with Diesel Fuel Only*</u>
1	695.7	173.8
1-2	1434.8	358.4
1-3	2174	543
1-4	2521.8	629.9
1-5	2913.2	727.6
1-6	3261	814.5
1-7	3434.9	857.9

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1-8	3608.8	901.4
1-9	3782.8	944.8
1-10	4000.2	999.1
1-11	4174.1	1042.6
1-12	4348	1086

* The allowable cumulative total hours of operation for emissions units B009 and B010, combined, shall not exceed 4348 hours per year while firing with dual fuel only as defined in Section A.I.2.a of these terms and conditions.

After the first 12 calendar months of operation following the startup of emissions units B009 and B010, compliance with the annual operating hours limitations shall be based on rolling, 12-month summations of the operating hours with each type of fuel.

5. The quality of the diesel fuel burned in this emissions unit shall meet, on an "as received" basis, a sulfur content which is sufficient to comply with the allowable sulfur dioxide emissions limitation of 1.56 pounds per hour.

III. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas and/or number 2 diesel fuel, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall maintain monthly records of the following information:
 - a. the total volume of dual fuel as defined in Section A.I.2.a of these terms and conditions burned in emissions units B009 and B010;
 - b. the total volume of diesel fuel burned in emissions units B009 and B010;
 - c. the total hours of operation of emissions units B009 and B010 with each type of fuel; and
 - d. beginning after the first 12 calendar months of operation following startup of this emissions unit, the rolling, 12-month summation of the operating hours with each type of fuel.

Also, during the first 12 calendar months of operation following startup of this emissions unit, the permittee shall record the cumulative operating hours with each type of fuel for each calendar month.

3. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content and heat content.
4. The permittee shall calculate and record, on a monthly basis, the total emissions of NO_x from emissions units B009 and B010, utilizing methods of calculation specified in Section A.V of these terms and conditions.
5. The permittee shall calculate and record, on a monthly basis, the total emissions of CO from emissions units B009 and B010, utilizing methods of calculation specified in Section A.V of these terms and conditions.
6. The permittee shall calculate and record, on a monthly basis, the total emissions of VOC from emissions units B009 and B010, utilizing methods of calculation specified in Section A.V of these terms and conditions.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or number 2 diesel fuel was burned in this emissions unit. Each report shall be submitted within 45 days after the deviation occurs.
2. The permittee shall notify the Ohio EPA Northeast District Office in writing of any record which shows a deviation from the restrictions in operating hours listed in Section A.II above. The notification shall include a copy of such record and shall be sent to the Ohio EPA Northeast District Office within 45 days after the deviation occurs.
3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month emission limitations for NO_x, CO, and VOC and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. Each report shall be submitted to the Ohio EPA Northeast District within 45 days after the after the deviation occurs.
4. The permittee shall submit an annual report which provides a summary of the total annual hours of operation of this emissions unit and the annual NO_x, CO, and VOC emissions from this emissions unit. This report shall be submitted by February 15 of each year for operations data recorded during the previous calendar year.
5. The permittee shall submit, on a quarterly basis, records of the permittee's or diesel fuel supplier's

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Emissions Unit ID: B010

analyses for each shipment of diesel which is received for burning in this emissions unit. The permittee's or diesel fuel supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of diesel fuel. The following information shall also be included in the records of the permittee's or diesel fuel supplier's analyses:

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

*In proportion to the quantity of diesel fuel received in each shipment during the calendar month. These quarterly reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall cover the diesel fuel shipments received during the previous calendar quarters.

V. Testing Requirements

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 180 days of startup of the emissions unit.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for NO_x.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for NO_x, Method 7 or 7E of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Ohio EPA Northeast District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Northeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the

operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Northeast District Office.

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

- a. Emission Limitations:

Sulfur dioxide emissions shall not exceed 1.56 lbs/hr and 3.4 TPY (in combination with emissions unit B009).

Applicable Compliance Methods:

- i. The pound per hour emission limitation of 1.56 lbs/hr is based upon the manufacturer's emission factor for this emissions unit.
- ii. If required, the permittee shall demonstrate compliance with the hourly emission rate in accordance with 40 CFR Part 60, Appendix A, Methods 6 or 6C and the procedures specified in OAC rule 3745-18-04.
- iii. The annual limit of 3.4 TPY is based on the allowable hourly limit of 1.56 lbs/hr multiplied by the maximum allowable operating hours (4348 hrs/yr), and divided by 2000 lbs/ton. Therefore, provided compliance is demonstrated with the hourly and operating hours limitations, compliance will also be demonstrated with the annual limitation.

- b. Emission Limitation:

Emissions Unit ID: B010

Carbon monoxide emissions shall not exceed 33.06 lbs/hr.

Applicable Compliance Methods:

- i. The pound per hour emission limitation of 33.06 lbs/hr is based upon the manufacturer's emission factor for this emissions unit.
- ii. If required, the permittee shall demonstrate compliance with the hourly emission rate in accordance with 40 CFR Part 60, Appendix A, Methods 10 or 10A.

c. Emission Limitation:

Carbon monoxide emissions shall not exceed 71.9 TPY (in combination with emissions unit B009).

Applicable Compliance Methods:

The annual limit of 71.9 TPY is based on the allowable hourly limit of 33.06 lbs/hr multiplied by the maximum allowable operating hours (4348 hrs/yr), and divided by 2000 lbs/ton. Therefore, provided compliance is demonstrated with the hourly and operating hours limitations, compliance will also be demonstrated with the annual limitation.

d. Emission Limitation:

Emissions of nitrogen oxides shall not exceed 58.33 lbs/hr.

Applicable Compliance Method:

The pound per hour emission limitation of 58.33 lbs/hr is based upon the manufacturer's emission factor for this emissions unit.

e. Emission Limitation:

Emissions of nitrogen oxides shall not exceed 31.7 TPY (in combination with emissions unit B009).

Applicable Compliance Method:

i. The pound per hour emission limitation of 58.33 lbs/hr is based upon the manufacturer's emission factor for this emissions unit.

ii. To determine the actual annual emission rate for NO_x from burning dual fuel, the following equation shall be used:

$$E (\text{NO}_x \text{ dual fuel}) = 14.58 \text{ lbs/hr} \times T \times 1 \text{ ton}/2000 \text{ lbs}$$

Where

E (NO_x dual fuel) = annual NO_x emission rate from emissions units B009 and B010 when employing dual fuel, in tons/year;

14.58 lbs/hr = manufacturer's emission factor for emissions units B009 and B010 when employing dual fuel;

T = actual operating hours per year of this emissions unit (B010) and emissions unit B009 when employing dual fuel; and

1 ton/2000 lbs = conversion of lbs to tons.

- iii. To determine the actual annual emission rate for NO_x from burning diesel fuel, the following equation shall be used:

$$E (\text{NO}_x \text{ diesel fuel}) = 58.33 \text{ lbs/hr} \times T \times 1 \text{ ton}/2000 \text{ lbs}$$

Where

E (NO_x diesel fuel) = annual NO_x emission rate from emissions units B009 and B010 when employing diesel fuel, in tons/year;

58.33 lbs/hr = manufacturer's emission factor for emissions units B009 and B010 when employing diesel fuel;

T = actual operating hours per year of this emissions unit (B010) and emissions unit B009 when employing diesel fuel; and

1 ton/2000 lbs = conversion of lbs to tons.

- iv. To determine the actual annual emission rate for NO_x from burning dual fuel and diesel fuel, combined, the following equation shall be used:

Emissions Unit ID: B010

$$E(\text{NOx total}) = E(\text{NOx dual fuel}) + E(\text{NOx diesel fuel})$$

Where

$E(\text{NOx total})$ = actual total annual NOx emission rate from emissions units B009 and B010, in tons/year;

$E(\text{NOx dual fuel})$ = annual NOx emission rate from emissions units B009 and B010 when employing dual fuel, in tons/year; and

$E(\text{NOx diesel fuel})$ = annual NOx emission rate from emissions units B009 and B010 when employing diesel fuel, in tons/year.

f. Emission Limitation:

Particulate emissions shall not exceed 3.9 TPY (in combination with emissions unit B009).

Applicable Compliance Method:

To determine the actual annual particulate emission rate, the following equation shall be used:

$$E (\text{particulate}) = 0.062 \text{ lb/mmBtu} \times 28.80 \text{ mmBtu/hr} \times T \times 1 \text{ ton}/2000 \text{ lbs}$$

Where

$E (\text{particulate})$ = annual particulate emission rate from emissions units B009 and B010, in tons/year;

0.062 lb/mmBtu = emission limit from OAC rule 3745-17-11(B)(5)(b);

28.80 mmBtu/hr = maximum heat input of this emissions unit (B010) and emissions unit B009;

T = actual operating hours per year of this emissions unit (B010) and emissions unit B009; and

1 ton/2000 lbs = conversion of lbs to tons.

g. **Emission Limitation:**

Emissions of volatile organic compounds shall not exceed 7.78 lbs/hr.

Applicable Compliance Method:

i. The pound per hour emission limitation of 7.78 lbs/hr is based upon the manufacturer's emission factor for this emissions unit.

ii. If required, the permittee shall demonstrate compliance with the hourly emission rate in accordance with 40 CFR Part 60, Appendix A, Method 25.

h. **Emission Limitation:**

Emissions of volatile organic compounds shall not exceed 17 TPY (in combination with emissions unit B009).

Applicable Compliance Method:

The annual limit of 17 TPY is based on the allowable hourly limit of 7.78 lbs/hr multiplied by the maximum allowable operating hours (4348 hrs/yr), and divided by 2000 lbs/ton.

Therefore, provided compliance is demonstrated with the hourly and operating hours limitations, compliance will also be demonstrated with the annual limitation.

i. Emission Limitations:

Particulate emissions shall not exceed 0.062 lb/mmBtu (in combination with emissions unit B009).

Applicable Compliance Method:

- i. The pound per mmBtu emission limitation of 0.062 lb/mmBtu is based upon OAC rule 3745-17-11(B)(5)(b).
- ii. If required, the permittee shall demonstrate compliance in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10).

j. Emission Limitation:

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

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible emission limitation through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None.

B. State Only Enforceable Section**I. 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>
B010 - Fairbanks-Morse 4,410 BHP (28.67 mmBtu input; 3,165 kWe output) dual fuel electric generating unit (Oberlin engine #3)	None.	None.

2. Additional Terms and Conditions

2.a None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

None.

VI. Miscellaneous Requirements

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Oberlin Municipal Light and Power

PTI Application: **02-14221**

Issued

Facility ID: **0247100320**

Emissions Unit ID: B010

None.

NEW SOURCE REVIEW FORM B

PTI Number: 02-14231 Facility ID: 0247100320

FACILITY NAME Oberlin Municipal Light & Power

FACILITY DESCRIPTION Municipal power plant CITY/TWP Oberlin

SIC CODE 4911 SCC CODE 2-01-001-02 EMISSIONS UNIT ID B009

EMISSIONS UNIT DESCRIPTION Fairbanks-Morse 4,410 BHP (28.67 mmBtu input; 3,165 kWe output) dual fuel electric generating unit (Oberlin engine #2)

DATE INSTALLED 2/1/01

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	Attainment	0.062 lb/mmBtu	3.9 TPY	0.062 lb/mmBtu	3.9 TPY*
PM ₁₀					
Sulfur Dioxide	Attainment	1.56 lbs/hr	3.4 TPY	1.56 lbs/hr	3.4 TPY*
Organic Compounds	Attainment	7.78 lbs/hr	17 TPY	7.78 lbs/hr	17 TPY*
Nitrogen Oxides	Attainment	58.33 lbs/hr	31.7 TPY	58.33 lbs/hr	31.7 TPY*
Carbon Monoxide	Attainment	33.06 lbs/hr	71.9 TPY	33.06 lbs/hr	71.9 TPY*
Lead					
Other: Air Toxics					

* PTI allowable for emissions units B009 and B010, combined.

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination Emission limitations based on manufacturer's emission factors which are more stringent than State rules. Annual limitations on the number of operating hours with dual fuel only (4348 hrs/yr) and diesel fuel only (1086 hrs/yr) to limit NOx emissions to 30.7 TPY. Annual limitation of NOx emissions of 31.7 TPY when operating with both types of fuel within the same 12-month period.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? No

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT?

\$

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? _____ YES X NO

IDENTIFY THE AIR CONTAMINANTS: _____

50 NEW SOURCE REVIEW FORM B

PTI Number: 02-14231 Facility ID: 0247100320

FACILITY NAME Oberlin Municipal Light & Power

FACILITY DESCRIPTION Municipal power plant CITY/TWP Oberlin

Emissions Unit ID: B010

SIC CODE 4911 SCC CODE 2-01-001-02 EMISSIONS UNIT ID B010

EMISSIONS UNIT DESCRIPTION Fairbanks-Morse 4,410 BHP (28.67 mmBtu input; 3,165 kWe output) dual fuel electric generating unit (Oberlin engine #3)

DATE INSTALLED 2/1/01

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	Attainment	0.062 lb/mmBtu	3.9 TPY	0.062 lb/mmBtu	3.9 TPY*
PM ₁₀					
Sulfur Dioxide	Attainment	1.56 lbs/hr	3.4 TPY	1.56 lbs/hr	3.4TPY*
Organic Compounds	Attainment	7.78 lbs/hr	17 TPY	7.78 lbs/hr	17 TPY*
Nitrogen Oxides	Attainment	58.33 lbs/hr	31.7 TPY	58.33 lbs/hr	31.7 TPY*
Carbon Monoxide	Attainment	33.06 lbs/hr	71.9 TPY	33.06 lbs/hr	71.9 TPY*
Lead					
Other: Air Toxics					

* PTI allowable for emissions units B009 and B010, combined.

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination Emission limitations based on manufacturer's emission factors which are more stringent than State rules. Annual limitations on the number of operating hours with dual fuel only (4348 hrs/yr) and diesel fuel only (1086 hrs/yr) to limit NOx emissions to 30.7 TPY. Annual limitation of NOx emissions of 31.7 TPY when operating with both types of fuel within the same 12-month period.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? No

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? _____ YES X NO

IDENTIFY THE AIR CONTAMINANTS: _____

5 NEW SOURCE REVIEW FORM B

PTI Number: 02-14231

Facility ID: 0247100320

FACILITY NAME Oberlin Municipal Light & Power

FACILITY DESCRIPTION Municipal power plant

CITY/TWP Oberlin

Emissions Unit ID: B010

Ohio EPA Permit to Install Information Form Please describe below any documentation which is being submitted with this recommendation (must be sent the same day). Electronic items should be submitted with the e-mail transmitting the PTI terms, and in software that CO can utilize. If mailing any hard copy, this section must be printed as a cover page. All items must be clearly labeled indicating the PTI name and number. Submit **hard copy items to Pam McGraner**, AQM&P, DAPC, Central Office, and electronic files to **airpti@epa.state.oh.us**

Please fill out the following. If the checkbox does not work, replace it with an 'X'

	Electronic	<u>Additional information File Name Convention (your PTI # plus this letter)</u>	Hard Copy	None
<u>Calculations (required)</u>	<input type="checkbox"/>	0000000c.wpd	<input checked="" type="checkbox"/>	
Modeling form/results	<input type="checkbox"/>	0000000s.wpd	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PTI Application (complete or partial)*	<input type="checkbox"/>	0000000a.wpd	<input type="checkbox"/>	<input checked="" type="checkbox"/>
BAT Study	<input type="checkbox"/>	0000000b.wpd	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other/misc.	<input type="checkbox"/>	0000000t.wpd	<input type="checkbox"/>	<input checked="" type="checkbox"/>

* Mandatory for netting, PSD, nonattainment NSR, 112(g), 21-07(G)(9)(g) and 21-09(U)(2)(f) - 2 complete copies.

Please complete (see comment bubble to the left for additional instructions):

NSR Discussion

NONE

Please complete for these type permits (For PSD/NSR Permit, place mouse over this text):

Synthetic Minor Determination and/or **Netting Determination**

Permit To Install **02-14231**

A. Source Description

Oberlin Municipal Power & Light, SIC 4911, has submitted a PTI application for two 4,410 BHP (28.80 mmBtu/hr maximum heat input) dual fuel and diesel fuel electric generating units (emissions units B009 and B010). These units will replace emissions units B007 (1475 BHP diesel engine) and B002 (875 BHP diesel engine). This is an existing facility located at 289 South Professor Street in Oberlin, Ohio, in Lorain County.

B. Facility Emissions and Attainment Status

Oberlin Municipal Power & Light is a major stationary source for NO_x, VOC, and CO. Lorain County is attainment for NO_x, VOC, and CO.

C. Source Emissions

Emissions units B009 and B010 will emit pollutants associated with the products of combustion from dual fuel (approximately 95% natural gas and 5% diesel fuel) and diesel fuel. No air pollution control equipment will be used on these emissions units for the control of NO_x, VOC, and/or CO. The uncontrolled NO_x potential to emit from the new emissions units is greater than 40 tons per year. The uncontrolled VOC potential to emit from the new emissions units is greater than 40 tons per year. The uncontrolled CO potential to emit from the new emissions units is greater than 100 tons per year. Therefore, the installation of emissions units B009 and B010 represents significant emission increases for NO_x, VOC, and CO under Federal Prevention of Significant

52 NEW SOURCE REVIEW FORM B

PTI Number: 02-14231

Facility ID: 0247100320

FACILITY NAME Oberlin Municipal Light & Power

FACILITY DESCRIPTION Municipal power plant

CITY/TWP Oberlin

Emissions Unit ID: B010

Deterioration (PSD) regulations (40 CFR 52.21). The combined Hazardous Air Pollutant (HAP) emissions from both emissions units are less than 10 tons per year of any single HAP and less than 25 tons per year of any combination of HAPs based upon calculations incorporating emission factors obtained from FIRE 6.22, the maximum heat input of both emissions units, and 8760 hours of operation of both emissions units, combined. Therefore, the installation of emissions units B009 and B010 are not subject to the requirements of OAC rule 3745-31-28.

Oberlin Municipal Power & Light has proposed in the PTI application to limit the NOx, VOC, and CO emissions from these emissions units by limiting the annual hours of operation for both emissions units combined for dual fuel and diesel fuel. The PTI will contain terms and conditions which will limit the annual operating hours of emissions units B009 and B010 to 4348 hours per year when firing with dual fuel or 1086 hours per year when firing with diesel fuel to limit NOx emissions to 31.7 tons per year, VOC emissions to 17 tons per year, and CO emissions to 71.9 tons per year when firing with either fuel. The PTI will also contain terms and conditions limiting the annual NOx emissions to 31.7 tons per year, VOC emissions to 17 tons per year, and CO emissions to 71.9 tons per year for emissions units B009 and B010 when firing with a combination of the two fuels. The limitations of operating hours and annual NOx, VOC, and CO emissions will require daily record keeping.

D. Conclusion

The annual operating hours of emissions units B009 and B010 will be limited to 4348 hours per year when firing with dual fuel or 1086 hours per year when firing with diesel fuel to limit NOx emissions to 31.7 tons per year, VOC emissions to 17 tons per year, and CO emissions to 71.9 tons per year. The annual NOx emissions for emissions units B009 and B010 will be limited to 31.7 tons per year when firing with a combination of the two fuels. The annual VOC emissions for emissions units B009 and B010 will be limited to 17 tons per year when firing with a combination of the two fuels. The annual CO emissions for emissions units B009 and B010 will be limited to 71.9 tons per year when firing with a combination of the two fuels. Oberlin Municipal Power & Light will be required to record the number of hours each emissions unit operates per day with each type of fuel and the total NOx, VOC, and CO emissions per day for both emissions units, combined. The allowable emission rates of 31.7 tons per year of NOx, 17 tons per year of VOC, and 71.9 tons per year of CO are not considered significant under the definitions of Prevention of Significant Deterioration (PSD). Therefore, further PSD review for NOx, VOC, and CO is not required.

PLEASE PROVIDE ADDITIONAL NOTES OR COMMENTS AS NECESSARY:

NONE

Please complete:

SUMMARY (for informational purposes only)	
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS	
<u>Pollutant</u>	<u>Tons Per Year</u>

NEW SOURCE REVIEW FORM B

PTI Number: 02-14231

Facility ID: 0247100320

FACILITY NAME Oberlin Municipal Light & Power

FACILITY DESCRIPTION Municipal power plant

CITY/TWP Oberlin

Emissions Unit ID: B010

SO2

3.4 TPY

CO

71.9 TPY

NOx

31.7 TPY

Particulate

3.9 TPY

VOC

17 TPY