



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL
DELAWARE 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: 01-08922

Fac ID: 0121019629

DATE: 2/10/2005

Liebert Corporation
John Kaser
975 Pittsburgh Drive
Delaware, OH 43015

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, Manager
Permit Issuance and Data Management Section
Division of Air Pollution Control

CC: USEPA

CDO



**Permit To Install
Terms and Conditions**

**Issue Date: 2/10/2005
Effective Date: 2/10/2005**

FINAL PERMIT TO INSTALL 01-08922

Application Number: 01-08922
Facility ID: 0121019629
Permit Fee: **\$1000**
Name of Facility: Liebert Corporation
Person to Contact: John Kaser
Address: 975 Pittsburgh Drive
Delaware, OH 43015

Location of proposed air contaminant source(s) [emissions unit(s)]:
**975 Pittsburgh Dr
Delaware, Ohio**

Description of proposed emissions unit(s):
Three diesel generators P010 Z017 and Z018.

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. Permit to Install General Terms and Conditions

1. Compliance Requirements

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

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

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

3. Records Retention Requirements

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

4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized

representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

5. Scheduled Maintenance/Malfunction Reporting

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

6. Permit Transfers

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

7. Air Pollution Nuisance

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

8. Termination of Permit to Install

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

9. Construction of New Sources(s)

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

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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.

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.

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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>
NO _x	59.5
CO	4.0
SO _x	10.0
PE	2.0
OC	2.7

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>	
B003 - Stationary 235 hp (175 kW) diesel fired engine.	OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-07(A)(1)
		OAC rule 3745-17-11(B)(5)(a)
		OAC rule 3745-18-06(B)
		OAC rule 3745-21-08(B)
		OAC rule 3745-23-06(B)
	OAC rule 3745-31-05(C) (synthetic minor to avoid non-attainment provisions) OAC rule 3745-35-07(B) (synthetic minor to avoid Title V)	

Lieber**PTI A****Issued: 2/10/2005**Emissions Unit ID: **B003**

Applicable Emissions
Limitations/Control
Measures

Emissions shall not exceed:

7.3 pounds per hour (lbs/hr)
of nitrogen oxides (NO_x);

1.6 lbs/hr of carbon
monoxide (CO);

0.5 lbs/hr of sulfur oxide
(SO_x);

0.6 lbs/hr of organic
compounds (OC).

See Section A.2.a below.

The requirements of this
rule also include compliance
with the requirements of
OAC rules 3745-31-05(C),
3745-35-07(B),
3745-17-11(B)(5)(a) and
3745-17-07(A).

Emissions shall not exceed,
as a 12 month rolling
summation:

6.1 tons of NO_x

1.3 tons of CO

0.4 ton of SO_x

0.45 ton of PE

0.5 ton of OC

See Section B.2. below.

Visible emissions shall not exceed
20% opacity as a six-minute average,
except as provided by rule.

PE from the engine exhaust shall not
exceed 0.25 lb/MMBtu actual heat
input. See A.I.2.b below.

PE from the engine exhaust shall not
exceed 0.310 lb/MMBtu actual heat
input. See A.I.2.c below.

See Section A.2.d below.

See Section A.2.e below.

See Section A.2.f below.

2. Additional Terms and Conditions

- 2.a** The hourly emissions limitations for this emissions unit were established to reflect the potential to emit. Therefore, with the exception of the fuel oil analysis, it is not necessary to develop additional monitoring, record keeping, and/or reporting requirements to ensure compliance with these limits.
- 2.b** The requirement to comply with this particulate emission limitation shall terminate on the date the U.S. EPA approves the 0.310 lb/mmBtu actual heat input emission limitation as a revision to the Ohio SIP for particulate matter.
- 2.c** This particulate emission limitation shall be effective and federally enforceable on the date the U.S. EPA approves this particulate emission limitation as a revision to the Ohio SIP for particulate matter.
- 2.d** OAC rule 3745-18-06(B) exempts stationary internal combustion engines which have rated heat input capacities equal to, or less than, 10 MMBtu/hr from the sulfur dioxide emission limit in OAC rule 3745-18-06(G). This emissions unit has a rated heat input of 0.6 MMBtu/hr.
- 2.e** The design of the emissions unit and the technology associated with the current operating practices will satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.f** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install.

B. Operational Restrictions

- 1. The permittee shall only burn diesel fuel, containing no greater than 0.5% sulfur by weight, in this

emissions unit.

- 2. The permittee has requested a federally enforceable limitation on operating hours for the purpose of limiting potential to emit to avoid possible future non-attainment provisions and Title V operating permit requirements applicability associated with relocation of this portable source. Therefore, the maximum number of operating hours for this emissions unit shall not exceed 1,680 hours based upon a rolling, 12-month summation. To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the operating hours specified in the following table:

<u>Month(s)</u>	<u>Maximum Cumulative Operating Hours</u>
1	140
1-2	280
1-3	420
1-4	560
1-5	700
1-6	840
1-7	980
1-8	1,120
1-9	1,260
1-10	1,400
1-11	1,540
1-12	1,680

After the first 12 calendar months of operation following the startup of this emissions unit, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain records of the sulfur content of all fuels received for use in this emissions unit.
2. For each day during which the permittee burns a fuel other than diesel fuel containing no greater than 0.5% sulfur by weight in this emissions unit, the permittee shall maintain a record of the type and quantity of fuel burned.
3. The permittee shall maintain monthly records of the following information for this emissions unit:
 - a. The monthly hours of operation.
 - b. During the first 12 calendar months of operation following the issuance of this permit, the cumulative hours of operation, calculated by adding the current month's operating hours to the operating hours for each calendar month since the issuance of this permit.
 - c. Beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the hours of operation, calculated by adding the current month's operating hours to the operating hours for the preceding eleven calendar months.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than diesel fuel containing no greater than 0.5% sulfur by weight was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit quarterly deviation (excursion) reports which identify the following:
 - a. For the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative hours of operation.
 - b. Any exceedance of the rolling, 12-month hours of operation limitation.
 - c. Any exceedance of the fuel sulfur content restriction specified in Section B.1.

These deviation (excursion) reports shall be submitted in accordance with the General Terms and Conditions of this permit.

E. Testing Requirements

1. 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. Emissions Limitation:
7.3 lbs/hr of NO_x

Applicable Compliance Method:
 $(235 \text{ hp}) \times (0.031 \text{ lbs NO}_x / \text{hp-hr}) = 7.3 \text{ lbs NO}_x / \text{hr.}$

Emission factor, 0.031 lbs NO_x/ hp-hr (power output), is obtained from USEPA's AP-42, Volume I, Fifth Edition, Section 3.3, "Gasoline and Diesel Industrial Engines", Table 3.3-1, October 1996.

Emissions testing, if required, shall be conducted using the following test method: 40 CFR Part 60, Appendix A, Method 7. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA Central District Office.

- b. Emissions Limitation:
1.6 lbs/hr of CO

Applicable Compliance Method:
 $(235 \text{ hp}) \times (0.00668 \text{ lbs CO} / \text{hp-hr}) = 1.57 \text{ lbs CO} / \text{hr}$

Emission factor, 0.00668 lbs CO / hp-hr (power output), is obtained from USEPA's AP-42, Volume I, Fifth Edition, Section 3.3, "Gasoline and Diesel Industrial Engines", Table 3.3-1, October 1996.

Emissions testing, if required, shall be conducted using the following test method: 40 CFR Part 60, Appendix A, Method 10. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA Central District Office.

- c. Emissions Limitation:
0.5 lbs/hr of SO_x

Applicable Compliance Method:
 $((235 \text{ hp}) \times (0.00205 \text{ lbs SO}_x / \text{hp-hr}) = 0.48 \text{ lbs SO}_x / \text{hr}$

Emission factor, 0.00205 lbs SO_x / hp-hr (power output), is obtained from USEPA's

Emissions Unit ID: **B003**

AP-42, Volume I, Fifth Edition, Section 3.3, "Gasoline and Diesel Industrial Engines", Table 3.3-1, October 1996.

Emissions testing, if required, shall be conducted using the following test method: 40 CFR Part 60, Appendix A, Method 8. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA Southeast District Office.

- d. Emissions Limitation:
 0.6 lbs/hr of OC

Applicable Compliance Method:
 $(235 \text{ hp}) \times (0.00247 \text{ lbs OC/ hp-hr}) = 0.58 \text{ lbs OC / hr}$

Emission factor, 0.00247 lbs OC/ hp-hr (power output), is obtained from USEPA's AP-42, Volume I, Fifth Edition, Section 3.3, "Gasoline and Diesel Industrial Engines", Table 3.3-1, October 1996.

Emissions testing, if required, shall be conducted using the following test method: 40 CFR Part 60, Appendix A, Method 25A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA Southeast District Office.

- e. Emission Limitation:
 Emissions shall not exceed, as a 12 month rolling summation - 6.1 tons NO_x, 1.3 tons CO, 0.4 ton SO_x, and 0.5 ton OC

Applicable Compliance Method:
 Compliance with the rolling, 12-month summation for each emission limit, shall be determined by multiplying the maximum rated engine capacity (235 hp) by the total number of hours operated per rolling, 12-month period, as recorded in Section C.3, by the respective AP-42 (or manufactures data) emissions factor divided by 2000.

- f. Emission Limitation:
 Emissions shall not exceed, as a 12 month rolling summation, 0.4 ton PE.

Applicable Compliance Method:
 Compliance with the rolling, 12-month summation for each emission limit, shall be determined by multiplying the current cumulative fuel use, in gallons, by the respective AP-42 emissions factor divided by 2000.

- g. Emission Limitation:
 PE from the engine exhaust shall not exceed 0.25 lb/MMBtu actual heat input.

Applicable Compliance Method:

The permittee cannot demonstrate compliance with this emission limitation based upon the current emission factor contained in the U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.3, Table 3.3-1 (10/96). The Ohio EPA revised the emission limitation specified in this rule citation based upon the currently applicable emission factor. The revised rule was adopted by the Director of Ohio EPA in December of 1997, and it will be submitted to the U.S. EPA as a proposed revision to the Ohio SIP for particulate matter. When the SIP revision is approved by the U.S. EPA, the 0.25 lb/MMBtu actual heat input emission limitation will no longer be applicable, and the permittee will be able to demonstrate compliance with the new emission limitation (0.310 lb/MMBtu actual heat input) using the current emission factor.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in OAC rule 3745-17-03(B)(10).

h. Emission Limitation:

Visible emissions shall not exceed 20% opacity as a six-minute average.

Applicable Compliance Method:

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

F. Miscellaneous Requirements

None

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

A. Applicable Emissions Limitations and/or Control Requirements

- 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>	
B004 - Stationary 302 hp (225 kW) diesel engine.	OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-07(A)(1)
		OAC rule 3745-17-11(B)(5)(a)
		OAC rule 3745-18-06(B)
		OAC rule 3745-21-08(B)
		OAC rule 3745-23-06(B)
		OAC rule 3745-31-05(C) (synthetic minor to avoid non-attainment provisions) OAC rule 3745-35-07(B) (synthetic minor to avoid Title V)

Lieber**PTI A****Issued: 2/10/2005**Emissions Unit ID: **B004**

Applicable Emissions
Limitations/Control
Measures

Emissions shall not exceed:

9.4 lbs/hr of NO_x;

2.0 lbs/hr of CO;

0.6 lbs/hr of SO_x;

0.8 lbs/hr of OC.

See Section A.2.a below.

The requirements of this rule also include compliance with the requirements of OAC rules 3745-31-05(C), 3745-35-07(B), 3745-17-11(B)(5)(a) and 3745-17-07(A).

Emissions shall not exceed, as a 12 month rolling summation:

7.9 tons of NO_x

1.7 tons of CO

0.52 ton of SO_x

0.56 ton of PE

0.63 ton of OC

See Section B.2. below.

Visible emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule

PE from the engine exhaust shall not exceed 0.25 lb/MMBtu actual heat input. See A.I.2.b below.

PE from the engine exhaust shall not exceed 0.310 lb/MMBtu actual heat input. See A.I.2.c below.

See Section A.2.d below.

See Section A.2.e below.

See Section A.2.f below.

2. Additional Terms and Conditions

- 2.a** The hourly emissions limitations for this emissions unit were established to reflect the potential to emit. Therefore, with the exception of the fuel oil analysis, it is not necessary to develop additional monitoring, record keeping, and/or reporting requirements to ensure compliance with these limits.
- 2.b** The requirement to comply with this particulate emission limitation shall terminate on the date the U.S. EPA approves the 0.310 lb/mmBtu actual heat input emission limitation as a revision to the Ohio SIP for particulate matter.
- 2.c** This particulate emission limitation shall be effective and federally enforceable on the date the U.S. EPA approves this particulate emission limitation as a revision to the Ohio SIP for particulate matter.
- 2.d** OAC rule 3745-18-06(B) exempts stationary internal combustion engines which have rated heat input capacities equal to, or less than, 10 MMBtu/hr from the sulfur dioxide emission limit in OAC rule 3745-18-06(G). This emissions unit has a rated heat input of 0.8 MMBtu/hr.
- 2.e** The design of the emissions unit and the technology associated with the current operating practices will satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.f** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install.

B. Operational Restrictions

- 1. The permittee shall only burn diesel fuel, containing no greater than 0.5% sulfur by weight, in this

emissions unit.

2. The permittee has requested a federally enforceable limitation on operating hours for the purpose of limiting potential to emit to avoid possible future non-attainment provisions and Title V operating permit requirements applicability associated with relocation of this portable source. Therefore, the maximum number of operating hours for this emissions unit shall not exceed 1,680 hours based upon a rolling, 12-month summation. To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the operating hours specified in the following table:

<u>Month(s)</u>	<u>Maximum Cumulative Operating Hours</u>
1	140
1-2	280
1-3	420
1-4	560
1-5	700
1-6	840
1-7	980
1-8	1,120
1-9	1,260
1-10	1,400
1-11	1,540
1-12	1,680

After the first 12 calendar months of operation following the startup of this emissions unit, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain records of the sulfur content of all fuels received for use in this emissions unit.
2. For each day during which the permittee burns a fuel other than diesel fuel containing no greater than 0.5% sulfur by weight in this emissions unit, the permittee shall maintain a record of the type and quantity of fuel burned.
3. The permittee shall maintain monthly records of the following information for this emissions unit:

- a. The monthly hours of operation.
- b. During the first 12 calendar months of operation following the issuance of this permit, the cumulative hours of operation, calculated by adding the current month's operating hours to the operating hours for each calendar month since the issuance of this permit.
- c. Beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the hours of operation, calculated by adding the current month's operating hours to the operating hours for the preceding eleven calendar months.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than diesel fuel containing no greater than 0.5% sulfur by weight was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit quarterly deviation (excursion) reports which identify the following:
 - a. For the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative hours of operation.
 - b. Any exceedance of the rolling, 12-month hours of operation limitation.
 - c. Any exceedance of the fuel sulfur content restriction specified in Section B.1.

These deviation (excursion) reports shall be submitted in accordance with the General Terms and Conditions of this permit.

E. Testing Requirements

1. 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. Emissions Limitation:
9.4 lbs/hr of NO_x

Applicable Compliance Method:

$$(302 \text{ hp}) \times (0.031 \text{ lbs NO}_x / \text{hp-hr}) = 9.4 \text{ lbs NO}_x / \text{hr}$$

Emission factor 0.031 lbs NO_x / hp-hr (power output) is obtained from USEPA's AP-42, Volume I, Fifth Edition, Section 3.3, "Gasoline and Diesel Industrial Engines", Table 3.3-1, October 1996.

Emissions testing, if required, shall be conducted using the following test method: 40 CFR Part 60, Appendix A, Method 7. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA Central District Office.

- b. Emissions Limitation:
2.0 lbs/hr of CO

Applicable Compliance Method:

$$(302 \text{ hp}) \times (0.00668 \text{ lbs CO} / \text{hp-hr}) = 2.02 \text{ lbs CO} / \text{hr}$$

Emission factor 0.852 lbs CO/MMBtu (power output) is obtained from USEPA's AP-42, Volume I, Fifth Edition, Section 3.3, "Gasoline and Diesel Industrial Engines", Table 3.3-1, October 1996.

Emissions testing, if required, shall be conducted using the following test method: 40 CFR Part 60, Appendix A, Method 10. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA Central District Office.

- c. Emissions Limitation:
0.6 lbs/hr of SO_x

Applicable Compliance Method:

$$(302 \text{ hp}) \times (0.00205 \text{ lbs SO}_x / \text{hp-hr}) = 0.62 \text{ lbs SO}_x / \text{hr}$$

Emission factor 0.00205 lbs SO_x / hp - hr (power output) is obtained from USEPA's AP-42, Volume I, Fifth Edition, Section 3.3, "Gasoline and Diesel Industrial Engines", Table 3.3-1, October 1996.

Emissions testing, if required, shall be conducted using the following test method: 40 CFR Part 60, Appendix A, Method 8. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA Southeast District Office.

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Issued

Facility ID: 0121019629

Emissions Unit ID: **B004**

- d. Emissions Limitation:
0.7 lbs/hr of OC

Applicable Compliance Method:

$$(302 \text{ hp}) \times (0.00247 \text{ lbs OC/ hp-hr}) = 0.75 \text{ lbs OC / hr}$$

Emission factor 0.00247 lbs OC/ hp-hr is obtained from USEPA's AP-42, Volume I, Fifth Edition, Section 3.3, "Gasoline and Diesel Industrial Engines", Table 3.3-1, October 1996.

Emissions testing, if required, shall be conducted using the following test method: 40 CFR Part 60, Appendix A, Method 25A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA Southeast District Office.

- e. Emission Limitation:
Emissions shall not exceed, as a 12 month rolling summation - 7.9 tons NO_x, 1.7 tons CO, 0.52 tons SO_x, and 0.63 tons OC

Applicable Compliance Method:

Compliance with the rolling, 12-month summation for each emission limit, shall be determined by multiplying the maximum rated engine capacity (302 hp) by the total number of hours operated per rolling, 12-month period, as recorded in Section C.3, by the respective AP-42 emissions factor divided by 2000.

- f. Emission Limitation:
Emissions shall not exceed, as a 12 month rolling summation, 0.56 ton PE.

Applicable Compliance Method:

Compliance with the rolling, 12-month summation for each emission limit, shall be determined by multiplying the current cumulative fuel use, in gallons, by the respective AP-42 emissions factor divided by 2000.

- g. Emission Limitation:
PE from the engine exhaust shall not exceed 0.25 lb/MMBtu actual heat input.

Applicable Compliance Method:

The permittee cannot demonstrate compliance with this emission limitation based upon the current emission factor contained in the U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.3, Table 3.3-1 (10/96). The Ohio EPA revised the emission limitation specified in this rule citation based upon the currently applicable emission factor. The revised rule was adopted by the Director of Ohio EPA in December of 1997, and it will be submitted to the U.S. EPA as a proposed revision to the Ohio SIP for particulate matter. When the SIP revision is approved by the

U.S. EPA, the 0.25 lb/MMBtu actual heat input emission limitation will no longer be applicable, and the permittee will be able to demonstrate compliance with the new emission limitation (0.310 lb/MMBtu actual heat input) using the current emission factor.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in OAC rule 3745-17-03(B)(10).

h. Emission Limitation:

Visible emissions shall not exceed 20% opacity as a six-minute average.

Applicable Compliance Method:

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

F. Miscellaneous Requirements

None

Applicable Emissions
Limitations/Control
Measures

exhaust shall not exceed 0.062 lb /
MMBtu actual heat input. See
Section A.2.b. below.

Emissions shall not exceed: See Section A.2.c. below.

54.2 lbs/hr of NO_x ; See Section A.2.d. below.

1.1 lbs/hr of CO; See Section A.2.e. below.

11.0 lbs/hr of SO_x ;

1.9 lbs/hr of OC.

See Section A.2.a below.

The requirements of this rule also includes compliance with the requirements of OAC rules 3745-31-05(C), 3745-35-07(B), 3745-17-11(B)(5)(b) and 3745-17-07(A).

Emissions shall not exceed, as a 12 month rolling summation:

- 45.5 tons of NO_x
- 1.0 ton of CO
- 9.1 tons of SO_x
- 1.0 ton of PE
- 1.6 tons of VOC

Visible emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule.

PE from the engine's

2. Additional Terms and Conditions

- 2.a** The hourly emissions limitations for this emissions unit were established to reflect the potential to emit. Therefore, with the exception of the fuel oil analysis, it is not necessary to develop additional monitoring, record keeping, and/or reporting requirements to ensure compliance with these limits.
- 2.b** This particulate emission limitation shall be effective and federally enforceable on the date the U.S. EPA approves this particulate emission limitation as a revision to the Ohio SIP for particulate matter.
- 2.c** OAC rule 3745-18-06(B) exempts stationary internal combustion engines which have rated heat input capacities equal to, or less than, 10 MMBtu/hr from the sulfur dioxide emission limit in OAC rule 3745-18-06(G). This emissions unit has a rated heat input of 6.7 MMBtu/hr.
- 2.d** The design of the emissions unit and the technology associated with the current operating practices will satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.e** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install.

B. Operational Restrictions

1. The permittee shall only burn No. 2 or diesel fuel, containing no greater than 0.5% sulfur by weight, in this emissions unit.
2. The permittee has requested a federally enforceable limitation on operating hours for the purpose of limiting potential to emit to avoid possible future non-attainment provisions and Title V operating permit requirements applicability associated with relocation of this portable source. Therefore, the maximum number of operating hours for this emissions unit shall not exceed 1,680 hours based upon a rolling, 12-month summation. To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the operating hours specified in the following table:

<u>Month(s)</u>	<u>Maximum Cumulative Operating Hours</u>
1	140
1-2	280
1-3	420
1-4	560
1-5	700
1-6	840
1-7	980
1-8	1,120
1-9	1,260
1-10	1,400
1-11	1,540
1-12	1,680

After the first 12 calendar months of operation following the startup of this emissions unit, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain documentation on the sulfur content of all fuels received.
2. For each day during which the permittee burns a fuel other than No. 2 fuel oil or diesel fuel containing no greater than 0.5% sulfur by weight in this emissions unit, the permittee shall maintain a record of the type and quantity of fuel burned.

3. The permittee shall maintain monthly records of the following information for this emissions unit:
 - a. The monthly hours of operation.
 - b. During the first 12 calendar months of operation following the issuance of this permit, the cumulative hours of operation, calculated by adding the current month's operating hours to the operating hours for each calendar month since the issuance of this permit.
 - c. Beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the hours of operation, calculated by adding the current month's operating hours to the operating hours for the preceding eleven calendar months.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than diesel fuel containing no greater than 0.5% sulfur by weight was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit quarterly deviation (excursion) reports which identify the following:
 - a. For the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative hours of operation.
 - b. Any exceedance of the rolling, 12-month hours of operation limitation.
 - c. Any exceedance of the fuel sulfur content restriction specified in Section B.1.

These deviation (excursion) reports shall be submitted in accordance with the General Terms and Conditions of this permit.

E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):
 - a. Emissions Limitation:
54.2 lbs/hr of NO_x

Applicable Compliance Method:

$$(2682 \text{ hp}) \times (9.16 \text{ grams NO}_x / \text{bhp-hr}) \times (1 \text{ lb} / 453.6 \text{ grams}) = 54.2 \text{ lbs NO}_x / \text{hr}$$

Emission factor, 9.16 grams NO_x /bhp-hr (power output), is obtained from manufactures data, Caterpillar, Diesel Generator Set, Standby 2000 ekW / 2500 kVA, Technical Data table, April 2002.

Emissions testing, if required, shall be conducted using the following test method: 40 CFR Part 60, Appendix A, Method 7. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA Central District Office.

- b. Emissions Limitation:
1.1 lbs/hr of CO

Applicable Compliance Method:

$$(2682 \text{ hp}) \times (0.20 \text{ grams CO} / \text{bhp-hr}) \times (1 \text{ lb} / 453.6 \text{ grams}) = 1.14 \text{ lbs CO} / \text{hr}$$

Emission factor 0.20 grams CO /bhp-hr (power output) is obtained from manufactures data, Caterpillar, Diesel Generator Set, Standby 2000 ekW / 2500 kVA, Technical Data table, April 2002.

Emissions testing, if required, shall be conducted using the following test method: 40 CFR Part 60, Appendix A, Method 10. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA Central District Office.

- c. Emissions Limitation:
11.0 lbs/hr of SO_x

Applicable Compliance Method:

$$(2682 \text{ hp}) \times ((0.00809) \times (0.5) \text{ lbs SO}_x / \text{hp-hr}) = 10.8 \text{ lbs SO}_x / \text{hr}$$

Emission factor 0.00809 lbs SO₂/hp-hr times the sulfur content of the diesel fuel (0.5 %) is obtained from USEPA's AP-42, Volume I, Fifth Edition, Section 3.4, "Large Stationary diesel and All Stationary Dual-fuel Engines", Table 3.4-1, October 1996.

Emissions testing, if required, shall be conducted using the following test method: 40 CFR Part 60, Appendix A, Method 8. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA Southeast District Office.

- d. Emissions Limitation:
1.9 lbs/hr of OC.

Applicable Compliance Method:

$$(2682 \text{ hp}) \times (0.000705 \text{ lbs OC/ hp-hr}) = 1.9 \text{ lbs OC / hr}$$

Emission factor, 0.000705 lbs OC/ hp- hr, is obtained from USEPA's AP-42, Volume I, Fifth Edition, Section 3.4, "Large Stationary diesel and All Stationary Dual-fuel Engines", Table 3.4-1, October 1996.

Emissions testing, if required, shall be conducted using the following test method: 40 CFR Part 60, Appendix A, Method 25A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA Southeast District Office.

e. Emission Limitation:

Emissions shall not exceed, as a 12 month rolling summation - 45.5 tons NO_x, 1.0 tons CO, 9.1 tons SO_x, and 1.6 VOC.

Applicable Compliance Method:

Compliance with the rolling, 12-month summation for each emission limit, shall be determined by multiplying the maximum rated engine capacity (2682 hp) by the total number of hours operated per rolling, 12-month period, as recorded in Section C.3, by the respective AP-42 (or manufactures data) emissions factor divided by 2000.

f. Emission Limitation:

Emissions shall not exceed, as a 12 month rolling summation, 1.0 ton PE.

Applicable Compliance Method:

Compliance with the rolling, 12-month summation for each emission limit, shall be determined by multiplying the current cumulative fuel use, in gallons, by the respective AP-42 emissions factor divided by 2000.

g. Emission Limitation:

Particulate emissions from the engine exhaust shall not exceed 0.062 lb / MMBtu actual heat input.

Applicable Compliance Method:

Compliance shall be determined based on the emission factor of 0.062 lb/MMBtu specified in the U.S. EPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.4, Table 3.4-2 (10/96).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in OAC rule 3745-17-03(B)(10).

- h. Emission Limitation:
Visible emissions shall not exceed 20% opacity as a six-minute average.

Applicable Compliance Method:

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

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Lieber

PTI A

Issued: 2/10/2005

Emissions Unit ID: **B005**

F. Miscellaneous Requirements

None