State of Ohio Environmental Protection Agency

RE: DRAFT PERMIT TO INSTALL **CERTIFIED MAIL**
CUYAHOGA COUNTY

Street Address: Mailing Address: Lazarus Gov. Center
Lazarus Gov. Center **TELE:** (614) 644-3020 **FAX:** (614) 644-2329

Application No: 13-04678
Fac ID: 1318008498

DATE: 2/27/2007

Cleveland Water Department - Kirtland
Cleveland Water
1201 Lakeside Avenue
Cleveland, OH 44114

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43216-1049.

A Permit to Install may be issued in proposed of final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **$1200** will be due. Please do not submit any payment now.

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. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Sincerely,

Michael W. Ahern

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

CC: **USEPA** **CLAA** **PA**

Synthetic Minor Determination and/or ☐ Netting Determination
Permit To Install: 13-04678

A. Source Description

This facility is a pump station for the Cleveland Division of Water. In August 14, 2003, a large scale power outage affected much of the Eastern United States and parts of Canada. The outage shut off the water pumps used by the city of Cleveland, leaving residents without safe drinking water. To ensure adequate water supply in the event of another outage, the Cleveland Division of Water is proposing to install new emergency diesel powered generators for the water pumps. Not only can these generators supply energy to the pumps when the electricity is down, they can also supply back up energy when the electric grid is in high demand and being over used. When the demand for electricity is high, these generators can ease the strain on the electric grid by supplying energy to the pumps independently. The pumps will be located at four different sites throughout the Cleveland area. Each of these is a separate project since they will each be operated independently of each other. For this site, Kirtland Pumping Station, the Division of Water is proposing to install three diesel-fired generators, B001 - B003, each rated at 2000 kilowatts.

B. Facility Emissions and Attainment Status

The three generators are the only emissions units at the facility, therefore the facility emissions are the same as what is proposed in this permit recommendation:

NOx = 46.65 TPY
CO = 8.94 TPY
SO_2 = 12.39 TPY
PM/PM_{10} = 1.5 TPY
OC = 0.87 TPY
lead = 0.000138 TPY

Cuyahoga County is currently designated non-attainment for the 8-hour ozone standard (NOx and VOC are the precursors) and $PM_{2.5}$ (where PM_{10} is the surrogate pollutant at this time).

C. Source Emissions

The potential to emit for the four generators results in NOx emissions of 510 tons/year, SO_2 emissions of 135 tons/year, and PM10 emissions of 16.2 tons/year. However, these emissions units will be restricted to 800 hours of operation per rolling, 12-month period (for each generator) which will reduce total NOx emissions to 46.65 tons/year and SO_2 emissions to 12.39 tons/year. The emissions are summarized as follows:

Potential to Emit at 8760 hours/year (tons/year)						
	NOx	CO	SO_2	PM/PM_{10}	OC	lead
B001	170	33	45	5.4	3	0.0053
B002	170	33	45	5.4	3	0.0053
B003	170	33	45	5.4	3	0.0053
Totals	**510**	**99**	**135**	**16.2**	**9**	**0.0159**

Synthetic Minor at 800 hours/year (tons/year)						
	NOx	CO	SO_2	PM/PM_{10}	OC	lead
B001	15.55	2.98	4.13	0.50	0.29	0.00046
B002	15.55	2.98	4.13	0.50	0.29	0.00046
B003	15.55	2.98	4.13	0.50	0.29	0.00046

Totals	**46.65**	**8.94**	**12.39**	**1.5**	**0.87**	**0.00138**

D. Conclusion

Limiting the hours of operation for emissions units B001, B002 and B003 to 800 hours per rolling, 12-month period for each emissions unit will restrict the NOx emissions to 46.65 TPY, CO emissions to 8.94 TPY, SO_2 emissions to 12.39 TPY, PM/PM_{10} emissions to 1.5 TPY, OC emissions to 0.87 TPY, and lead emissions to 0.00138 TPY. Therefore, the Cleveland Water Department, Kirtland pumping station will not be subject to Title V permitting since the PTE for all pollutants will be under 100 TPY. In addition, this project will not be subject to either PSD or NNSR since the PTE for all pollutants is less than 100 TPY which is below the trigger level for these rules.

DRAFT PERMIT TO INSTALL 13-04678

Application Number:	13-04678
Facility ID:	1318008498
Permit Fee:	**To be entered upon final issuance**
Name of Facility:	Cleveland Water Department - Kirtland
Person to Contact:	Cleveland Water
Address:	1201 Lakeside Avenue Cleveland, OH 44114

Location of proposed air contaminant source(s) [emissions unit(s)]:
4091 S. Marginal Road
Cleveland, Ohio

Description of proposed emissions unit(s):
Three Diesel Generators

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

Chris Korleski
Director

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 (i.e., postmarked) quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

3. Records Retention Requirements

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

4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections,

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

5. Scheduled Maintenance/Malfunction Reporting

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

6. Permit Transfers

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

7. Air Pollution Nuisance

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

8. Termination of Permit to Install

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

9. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental

Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources 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.

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

Pollutant	Tons Per Year
NOx	46.65
CO	8.94
SO_2	12.39
PM/PM_{10}	1.5

Issued: To be entered upon final issuance
PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment - (B001) - 2000 kilowatt (20 MMBtu/hr) Diesel fired generator no. 1

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3) This emissions unit was installed in July 2005.	38.88 lbs/hour of NOx emissions; 10.33 lbs/hour of SO_2 emissions; 1.24 lbs/hour; and 7.45 lbs/hour and 2.98 tons/year of CO emissions. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(5)(b), 3745-17-07(A) and 3745-31-05(C).
OAC rule 3745-17-07(A)(1)	Visible particulate emissions shall not exceed twenty percent opacity, as a six-minute average, except as provided by rule.
OAC rule 3745-17-11(B)(5)(b)	0.062 lb/mm Btu of particulate emissions of actual heat input.
OAC rule 3745-18-06(G)	0.5 pound of sulfur dioxide per MM Btu actual heat input.
OAC rule 3745-31-05(C) Synthetic Minor to avoid PSD, Nonattainment NSR, and Title V.	15.55 tons/year* NOx emissions; 4.13 tons/year* SO_2 emissions; and 0.50 ton/year* of PM/PM_{10} emissions. * per rolling, 12-month period See term B.2 below.

2. Additional Terms and Conditions

None

Issued: To be entered upon final issuance

B. Operational Restrictions

1. The permittee shall use only diesel fuel with a sulfer content less than 0.5% by weight in the engine and generator.

2. The maximum annual operating hours for this emissions unit shall not exceed 800 hrs/yr, based upon a rolling, 12-month summation of the operating hours.

   To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the operating hours levels specified in the following table:

Month(s)	Maximum Allowable Cumulative Operating Hours
1	100
1-2	165
1-3	230
1-4	295
1-5	360
1-6	425
1-7	490
1-8	555
1-9	620
1-10	685
1-11	750
1-12	800

   After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, 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 monthly records of the following information:

   a. the operating hours for each month; and

   b. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the operating hours.

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

2. For each day during which the permittee burns a fuel other than diesel fuel the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit. The permittee shall also maintain documentation on the sulfur content of all fuels received.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 12-month limitation on the hours of operation; and for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative hours of operation. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than diesel was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.1. of these terms and conditions shall be determined in accordance with the following method(s):

   a. Emission Limitation:
   38.88 lbs/hour of NO_x emissions

   Applicable Compliance Method
   If required, compliance shall be determined by performing a stack test using Methods 1-4 and 7 of 40 CFR Part 60, Appendix A.

   b. Emission Limitation:
   10.33 lbs/hour of SO_2 emissions

   Applicable Compliance Method
   If required, compliance shall be determined by performing a stack test using Methods 1 through 4, and 6, 6A, 6B or 6C as specified in 40 CFR Part 60,

Appendix A and 40 CFR 60.46.

c Emission Limitation:
7.45 lbs/hour of CO emissions; and
2.98 ton/year of CO emissions

Applicable Compliance Method
If required, compliance shall be determined by performing a stack test using Methods 1-4 and Method 10 as specified in 40 CFR Part 60, Appendix A.

The tons/year limitations were developed by multiplying the lb/hour by the maximum operating schedule of 800 hours/year, and dividing by 2000 pounds/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown with the annual limitation as long as the permittee does not exceed 800 hours annually.

d. Emissions Limitation:
1.24 lbs/hour of PM/PM_{10} emissions;

Applicable Compliance Method
If required, compliance shall be determined by performing a stack test using Methods 1-5 of 40 CFR Part 60, Appendix A.

e. Emission Limitation:
Visible particulate emissions shall not exceed twenty percent opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:
Compliance with the above visible emission limitation shall be determined through performance testing using Method 9 of 40 CFR, Part 60, Appendix A.

f. Emission Limitation:
0.062 lb PM/mmBtu

Applicable Compliance Method
If required, compliance shall be determined by performing a stack test using Methods 1-5 of 40 CFR Part 60, Appendix A.

g. Emission Limitation:
0.5 pound of sulfur dioxide per MM Btu actual heat input and 10.33 lbs/hr of SO_2 emissions.

Applicable Compliance Method

If required, compliance shall be determined by performing a stack test using Methods 1 through 4, and 6, 6A, 6B or 6C as specified in 40 CFR Part 60, Appendix A and 40 CFR 60.46.

Alternatively, compliance with the lb/MM Btu limitation may be determined in accordance with OAC rule 3745-18-04(F)(2) as follows:

$$ER = [(1 \times 10^6) / H] \times D \times S \times 1.974$$

where:

ER = the emission rate in pounds of sulfur dioxide per MM Btu;
H = the heat content of the liquid fuel in Btu per gallon;
D = the density of the liquid fuel in pounds per gallon; and
S = the decimal fraction of sulfur in the liquid fuel.

h. Emission Limitation:

15.55 tons/year of NO_x emissions per rolling, 12-month period;
4.13 tons/year of SO_2 emissions per rolling, 12-month period; and
0.50 ton/year of PM/PM_{10} emissions per rolling, 12-month period.

Applicable Compliance Method

The tons/year limitations were developed by multiplying the lb/hour by the maximum operating schedule of 800 hours/year, and dividing by 2000 pounds/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown with the annual limitation as long as the permittee does not exceed 800 hours of operation annually.

F. Miscellaneous Requirements

1. The terms and conditions of this emission unit A.1 through E.1 are federally enforceable.

Emissions Unit ID: **B002**

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

A. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment - (B002) - 2000 kilowatt diesel fired generator no. 2

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3) This emissions unit was installed in July 2005.	38.88 lbs/hour of NOx emissions; 10.33 lbs/hour of SO_2 emissions; 1.24 lbs/hour; and 7.45 lbs/hour and 2.98 tons/year of CO emissions. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(5)(b), 3745-17-07(A) and 3745-31-05(C).
OAC rule 3745-17-07(A)(1)	Visible particulate emissions shall not exceed twenty percent opacity, as a six-minute average, except as provided by rule.
OAC rule 3745-17-11(B)(5)(b)	0.062 lb/mm Btu of particulate emissions of actual heat input.
OAC rule 3745-18-06(G)	0.5 pound of sulfur dioxide per MM Btu actual heat input.
OAC rule 3745-31-05(C) Synthetic Minor to avoid PSD, Nonattainment NSR, and Title V.	15.55 tons/year* NOx emissions; 4.13 tons/year* SO_2 emissions; and 0.50 ton/year* of PM/PM_{10} emissions. * per rolling, 12-month period See term B.2 below.

2. Additional Terms and Conditions

None

B. Operational Restrictions

1. The permittee shall use only diesel fuel with a sulfer content less than 0.5% by weight

in the engine and generator.

2. The maximum annual operating hours for this emissions unit shall not exceed 800 hrs/yr, based upon a rolling, 12-month summation of the operating hours.

   To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the operating hours levels specified in the following table:

Month(s)	Maximum Allowable Cumulative Operating Hours
1	100
1-2	165
1-3	230
1-4	295
1-5	360
1-6	425
1-7	490
1-8	555
1-9	620
1-10	685
1-11	750
1-12	800

   After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, 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 monthly records of the following information:

   a. the operating hours for each month; and

   b. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the operating hours.

   Also, during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative

operating hours for each calendar month.

2. For each day during which the permittee burns a fuel other than diesel fuel the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit. The permittee shall also maintain documentation on the sulfur content of all fuels received.

Emissions Unit ID: **B002**

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 12-month limitation on the hours of operation; and for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative hours of operation. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than diesel was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.1. of these terms and conditions shall be determined in accordance with the following method(s):

   a. Emission Limitation:
   38.88 lbs/hour of NO_x emissions

   Applicable Compliance Method
   If required, compliance shall be determined by performing a stack test using Methods 1-4 and 7 of 40 CFR Part 60, Appendix A.

   b. Emission Limitation:
   10.33 lbs/hour of SO_2 emissions

   Applicable Compliance Method
   If required, compliance shall be determined by performing a stack test using Methods 1 through 4, and 6, 6A, 6B or 6C as specified in 40 CFR Part 60, Appendix A and 40 CFR 60.46.

   c Emission Limitation:
   7.45 lbs/hour of CO emissions; and
   2.98 ton/year of CO emissions

   Applicable Compliance Method
   If required, compliance shall be determined by performing a stack test using Methods 1-4 and Method 10 as specified in 40 CFR Part 60, Appendix A.

The tons/year limitations were developed by multiplying the lb/hour by the maximum operating schedule of 800 hours/year, and dividing by 2000 pounds/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown with the annual limitation as long as the permittee does not exceed 800 hours annually.

d. Emissions Limitation:
1.24 lbs/hour of PM/PM_{10} emissions;

Applicable Compliance Method
If required, compliance shall be determined by performing a stack test using Methods 1-5 of 40 CFR Part 60, Appendix A.

e. Emission Limitation:
Visible particulate emissions shall not exceed twenty percent opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:
Compliance with the above visible emission limitation shall be determined through performance testing using Method 9 of 40 CFR, Part 60, Appendix A.

f. Emission Limitation:
0.062 lb PM/mmBtu

Applicable Compliance Method
If required, compliance shall be determined by performing a stack test using Methods 1-5 of 40 CFR Part 60, Appendix A.

g. Emission Limitation:
0.5 pound of sulfur dioxide per MM Btu actual heat input and 10.33 lbs/hr of SO_2 emissions.
Applicable Compliance Method
If required, compliance shall be determined by performing a stack test using Methods 1 through 4, and 6, 6A, 6B or 6C as specified in 40 CFR Part 60, Appendix A and 40 CFR 60.46.
Alternatively, compliance with the lb/MM Btu limitation may be determined in accordance with OAC rule 3745-18-04(F)(2) as follows:

$$ER = [(1 \times 10^6) / H] \times D \times S \times 1.974$$

where:

ER = the emission rate in pounds of sulfur dioxide per MM Btu;
H = the heat content of the liquid fuel in Btu per gallon;
D = the density of the liquid fuel in pounds per gallon; and
S = the decimal fraction of sulfur in the liquid fuel.

h. Emission Limitation:
15.55 tons/year of NO_x emissions per rolling, 12-month period;
4.13 tons/year of SO_2 emissions per rolling, 12-month period; and
0.50 ton/year of PM/PM_{10} emissions per rolling, 12-month period.

Applicable Compliance Method
The tons/year limitations were developed by multiplying the lb/hour by the maximum operating schedule of 800 hours/year, and dividing by 2000 pounds/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown with the annual limitation as long as the permittee does not exceed 800 hours of operation annually.

F. Miscellaneous Requirements

1. The terms and conditions of this emission unit A.1 through E.1 are federally enforceable.

Emissions Unit ID: **B003**

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

A. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment - (B003) - 2000 kilowat Diesel fired generator no. 3

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3) This emissions unit was installed in July 2005.	38.88 lbs/hour of NOx emissions; 10.33 lbs/hour of SO_2 emissions; 1.24 lbs/hour; and 7.45 lbs/hour and 2.98 tons/year of CO emissions. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(5)(b), 3745-17-07(A) and 3745-31-05(C).
OAC rule 3745-17-07(A)(1)	Visible particulate emissions shall not exceed twenty percent opacity, as a six-minute average, except as provided by rule.
OAC rule 3745-17-11(B)(5)(b)	0.062 lb/mm Btu of particulate emissions of actual heat input.
OAC rule 3745-18-06(G)	0.5 pound of sulfur dioxide per MM Btu actual heat input.
OAC rule 3745-31-05(C) Synthetic Minor to avoid PSD, Nonattainment NSR, and Title V.	15.55 tons/year* NOx emissions; 4.13 tons/year* SO_2 emissions; and 0.50 ton/year* of PM/PM_{10} emissions. * per rolling, 12-month period See term B.2 below.

2. Additional Terms and Conditions

None

B. Operational Restrictions

1. The permittee shall use only diesel fuel with a sulfer content less than 0.5% by weight

in the engine and generator.

2. The maximum annual operating hours for this emissions unit shall not exceed 800 hrs/yr, based upon a rolling, 12-month summation of the operating hours.

   To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the operating hours levels specified in the following table:

Month(s)	Maximum Allowable Cumulative Operating Hours
1	100
1-2	165
1-3	230
1-4	295
1-5	360
1-6	425
1-7	490
1-8	555
1-9	620
1-10	685
1-11	750
1-12	800

   After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, 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 monthly records of the following information:

   a. the operating hours for each month; and

   b. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the operating hours.

   Also, during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative

operating hours for each calendar month.

2. For each day during which the permittee burns a fuel other than diesel fuel the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit. The permittee shall also maintain documentation on the sulfur content of all fuels received.

D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 12-month limitation on the hours of operation; and for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative hours of operation. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than diesel was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.1. of these terms and conditions shall be determined in accordance with the following method(s):

   a. Emission Limitation:
   38.88 lbs/hour of NO_x emissions

   Applicable Compliance Method
   If required, compliance shall be determined by performing a stack test using Methods 1-4 and 7 of 40 CFR Part 60, Appendix A.

   b. Emission Limitation:
   10.33 lbs/hour of SO_2 emissions

   Applicable Compliance Method
   If required, compliance shall be determined by performing a stack test using Methods 1 through 4, and 6, 6A, 6B or 6C as specified in 40 CFR Part 60, Appendix A and 40 CFR 60.46.

   c Emission Limitation:
   7.45 lbs/hour of CO emissions; and
   2.98 ton/year of CO emissions

   Applicable Compliance Method
   If required, compliance shall be determined by performing a stack test using Methods 1-4 and Method 10 as specified in 40 CFR Part 60, Appendix A.

The tons/year limitations were developed by multiplying the lb/hour by the maximum operating schedule of 800 hours/year, and dividing by 2000 pounds/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown with the annual limitation as long as the permittee does not exceed 800 hours annually.

d. Emissions Limitation:
1.24 lbs/hour of PM/PM_{10} emissions;

Applicable Compliance Method
If required, compliance shall be determined by performing a stack test using Methods 1-5 of 40 CFR Part 60, Appendix A.

e. Emission Limitation:
Visible particulate emissions shall not exceed twenty percent opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:
Compliance with the above visible emission limitation shall be determined through performance testing using Method 9 of 40 CFR, Part 60, Appendix A.

f. Emission Limitation:
0.062 lb PM/mmBtu

Applicable Compliance Method
If required, compliance shall be determined by performing a stack test using Methods 1-5 of 40 CFR Part 60, Appendix A.

g. Emission Limitation:
0.5 pound of sulfur dioxide per MM Btu actual heat input and 10.33 lbs/hr of SO_2 emissions.
Applicable Compliance Method
If required, compliance shall be determined by performing a stack test using Methods 1 through 4, and 6, 6A, 6B or 6C as specified in 40 CFR Part 60, Appendix A and 40 CFR 60.46.
Alternatively, compliance with the lb/MM Btu limitation may be determined in accordance with OAC rule 3745-18-04(F)(2) as follows:

$$ER = [(1 \times 10^6) / H] \times D \times S \times 1.974$$

where:

ER = the emission rate in pounds of sulfur dioxide per MM Btu;
H = the heat content of the liquid fuel in Btu per gallon;
D = the density of the liquid fuel in pounds per gallon; and
S = the decimal fraction of sulfur in the liquid fuel.

h. Emission Limitation:
15.55 tons/year of NO_x emissions per rolling, 12-month period;
4.13 tons/year of SO_2 emissions per rolling, 12-month period; and
0.50 ton/year of PM/PM_{10} emissions per rolling, 12-month period.

Applicable Compliance Method
The tons/year limitations were developed by multiplying the lb/hour by the maximum operating schedule of 800 hours/year, and dividing by 2000 pounds/ton. Therefore, provided compliance is shown with the hourly limitations, compliance will also be shown with the annual limitation as long as the permittee does not exceed 800 hours of operation annually.

F. Miscellaneous Requirements

1. The terms and conditions of this emission unit A.1 through E.1 are federally enforceable.

Cleveland Water Department - Kirtland **Facility ID: 1318008498**
PTI Application: 13-04678
Issued: To be entered upon final issuance

Emissions Unit ID: **B003**

SIC CODE 4971 SCC CODE _____ EMISSIONS UNIT ID B001
EMISSIONS UNIT DESCRIPTION 2000 kilowatt Diesel fired generator no. 1
DATE INSTALLED July 2005
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	1.13 lbs/hr	0.45	0.062 lb/mm Btu 1.24 lbs/hr	0.50
PM_{10}	Nonattainment	1.13 lbs/hr	0.45	0.062 lb/mm Btu 1.24 lbs/hr	0.50
Sulfur Dioxide	Attainment	10.33 lbs/hr	4.13	10.33 lbs/hr 0.5 lb/mm Btu	4.13
Organic Compounds	Nonattainment	0.72 lb/hr	0.29	None	None
Nitrogen Oxides	Nonattainment	38.88 lb/hr	15.55	38.88 lb/hr	15.55
Carbon Monoxide	Attainment	7.45 lbs/hr	2.98	7.45 lbs/hr	2.98
Lead	Attainment	0.0012 lb/hr	0.00046	None	None
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

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

Enter Determination BAT is reduced hours of operation, hourly NOx, CO, SO_2, and PM/PM_{10} limitations and compliance with OAC rules 3745-17-07(A)(1), 17-11(B)(5)(b), and 18-06 (G). This is based off of similar sources.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? NO
OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? $ N/A

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: _____

11284.wpd

Cleveland Water Department - Kirtland **Facility ID: 1318008498**
PTI Application: 13-04678
Issued: To be entered upon final issuance

Emissions Unit ID: **B003**

SIC CODE 4971 SCC CODE EMISSIONS UNIT ID B002
EMISSIONS UNIT DESCRIPTION 2000 kilowatt diesel fired generator no. 2
DATE INSTALLED July 2005

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	1.13 lbs/hr	0.45	0.062 lb/mm Btu 1.24 lbs/hr	0.50
PM_{10}	Nonattainment	1.13 lbs/hr	0.45	0.062 lb/mm Btu 1.24 lbs/hr	0.50
Sulfur Dioxide	Attainment	10.33 lbs/hr	4.13	10.33 lbs/hr 0.5 lb/mm Btu	4.13
Organic Compounds	Nonattainment	0.72 lb/hr	0.29	None	None
Nitrogen Oxides	Nonattainment	38.88 lbs/hr	15.55	38.88 lb/hr	15.55
Carbon Monoxide	Attainment	7.45 lbs/hr	2.98	7.45 lbs/hr	2.98
Lead	Attainment	0.0012 lb/hr	0.00046	None	None
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

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

Enter Determination BAT is reduced hours of operation, hourly NOx, CO, SO_2, and PM/PM_{10} limitations and compliance with OAC rules 3745-17-07(A)(1), 17-11(B)(5)(b), and 18-06 (G). This is based off of similar sources.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? No
OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? $ N/A

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: _____

11284.wpd

Cleveland Water Department - Kirtland **Facility ID: 1318008498**
PTI Application: 13-04678
Issued: To be entered upon final issuance

Emissions Unit ID: **B003**

SIC CODE 4971 SCC CODE EMISSIONS UNIT ID B003
EMISSIONS UNIT DESCRIPTION 2000 kilowat Diesel fired generator no. 3
DATE INSTALLED July 2005

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	1.13 lbs/hr	0.45	0.062 lb/mm Btu 1.24 lbs/hr	0.50
PM_{10}	Nonattainment	1.13 lbs/hr	0.45	0.062 lb/mm Btu 1.24 lbs/hr	0.50
Sulfur Dioxide	Attainment	10.33 lbs/hr	4.13	10.33 lbs/hr 0.5 lb/mm Btu	4.13
Organic Compounds	Nonattainment	0.72 lb/hr	0.29	None	None
Nitrogen Oxides	Nonattainment	38.88 lbs/hr	15.55	38.88 lbs/hr	15.55
Carbon Monoxide	Attainment	7.45 lbs/hr	2.98	7.45 lbs/hr	2.98
Lead	Attainment	0.0012 lb/hr	0.00046	None	None
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

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

Enter Determination BAT is reduced hours of operation, hourly NOx, CO, SO_2, and PM/PM_{10} limitations and compliance with OAC rules 3745-17-07(A)(1), 17-11(B)(5)(b), and 18-06 (G). This is based off of similar sources.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? NO
OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? $ N/A

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: _____