

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

Permit To Install **14-05233**

A. Source Description

This Permit to Install covers one Caterpillar reciprocating internal combustion engine, rated at 19.8 MMBtu/hr, that will be used at the City of Hamilton's South Water Treatment Plant during emergency power outages and periods of peak electricity demand.

B. Facility Emissions and Attainment Status

Butler County is nonattainment for ozone and attainment for all other criteria pollutants. This Permit to Install will allow just 0.64 TPY VOC emissions. This permit will be a synthetic minor to limit NOx emissions to 28.58 TPY in order to remain out of Title V applicability.

C. Source Emissions

Emissions are from the combustion of diesel fuel. Short term limits are based on the potential to emit as calculated by the manufacturer of the engine or by actual tests conducted by AMP Ohio on an identical engine. Uncontrolled potential emissions of NOx are 208.65 tons annually based on a maximum hourly potential of 47.64 pounds per hour NOx emissions times 8760 hours. This Permit to Install contains terms limiting fuel usage to 170,640 gallons annually, limiting annual NOx emissions to 28.58 tons per year and establishing the facility as a minor source. The maximum annual fuel usage rate will be based on a rolling 12-month summation.

D. Conclusion

This Permit to Install will not require short term recordkeeping or reporting as short term limits are based on the hourly potential to emit. Low sulfur bearing diesel fuel (below 0.5% sulfur) will be used exclusively. NOx emissions will be kept below major thresholds by the annual fuel usage limitation. The permittee will maintain monthly fuel usage records and submit quarterly deviation reports. The potential of other emissions (PM, OC, CO, SO2) are well below major thresholds even at 8760 hours per year. Since the allowable NOx emissions are less than 100 TPY, the Title V regulations are not applicable.



State of Ohio Environmental Protection Agency

Street Address:

Mailing Address:

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

Lazarus Gov. Center

**RE: DRAFT PERMIT TO INSTALL
BUTLER COUNTY**

CERTIFIED MAIL

Application No: 14-05233

DATE: 12/18/2001

City of Hamilton South Water Plant
Randy Meyer
2600 Airport Drive
Columbus, OH

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, 43266-0149.

A Permit to Install may be issued in proposed or 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 **\$200** 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.

Very truly yours,

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

CC: USEPA

HCDES

Ohio-KY-IN Regional Council of Governments

KY

IN



**Permit To Install
Terms and Conditions**

**Issue Date: To be entered upon final issuance
Effective Date: To be entered upon final issuance**

DRAFT PERMIT TO INSTALL 14-05233

Application Number: 14-05233
APS Premise Number: 1409030715
Permit Fee: **To be entered upon final issuance**
Name of Facility: City of Hamilton South Water Plant
Person to Contact: Randy Meyer
Address: 2600 Airport Drive
Columbus, OH 43219

Location of proposed air contaminant source(s) [emissions unit(s)]:

**5140 River Road
Fairfield, Ohio**

Description of proposed emissions unit(s):

19.8 mmBTU diesel generator to generate electric power in emergency situations and at times of peak demand.

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

City of Hamilton South Water Plant

Facility ID: 1409030715

PTI Application: 14-05233

Issued: To be entered upon final issuance

Part I - GENERAL TERMS AND CONDITIONS

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

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

2. Reporting Requirements Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner:

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

3. Records Retention Requirements

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

4. Inspections and Information Requests

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

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

5. Scheduled Maintenance/Malfunction Reporting

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

6. Permit Transfers

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

7. Air Pollution Nuisance

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

8. Termination of Permit to Install

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

9. Construction of New Sources(s)

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

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

12. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

13. Source Operation and Operating Permit Requirements After Completion of Construction

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule

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3745-77-08(C)(3)(d).

- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within thirty (30) days after commencing operation of the source(s) covered by this permit.

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>
PM/PM10	0.43
SO2	0.95
CO	2.20
OC	0.64
NOx	28.58

City of Hamilton South Water Plant
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Issue

Facility ID: 1409030715

Emissions Unit ID: P001

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>	
P001 - South Water Plant Engine No. 1 (19.8 MMBtu/hr diesel generator)	OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-11(B)(5)(b)
		OAC rule 3745-17-07(A)(1)
	OAC rule 3745-35-07(B) Synthetic Minor to avoid Title V	
	OAC rule 3745-18-06(G)	

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Emissions Unit ID: P001

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<u>Applicable Emissions Limitations/Control Measures</u>	3745-31-05(A)(3).
0.037 lb PM-PM10/MMBTU actual heat input; 0.081 lb SO ₂ /MMBTU actual heat input; 3.67 lbs/ hr CO; 1.06 lbs/hr OC; 47.64 lbs/hr NO _x ;	Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
The requirements of this rule also include compliance with the requirements of OAC rules 3745-35-07(B) and 3745-17-07(A)(1).	
0.43 TPY PM/PM10* 0.95 TPY SO ₂ * 2.20 TPY CO* 0.64 TPY OC* 28.58 TPY NO _x *	
* based on a rolling, 12-month summation	
See Section B.1.	
The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).	
The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule	

City of
Portland

Emissions Unit ID: **P001**

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2. The permittee shall also submit annual reports which specify the total NOx emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

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MMBtu/gallon.

Emissions Unit ID: **P001**

City of
PTI

Emissions Unit ID: **P001**

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- d. Emission Limitation
0.95 TPY SO₂, based on a rolling, 12-month summation

Applicable Compliance Method

Compliance shall be based upon record keeping as specified in Section C1. and shall be the sum of the 12 monthly diesel fuel usage records for the calendar year multiplied by an emission factor of 0.0111 lb SO₂/gallon of fuel oil burned, divided by 2,000 pounds per ton.

- e. Emission Limitation
3.67 lbs/hr CO

Applicable Compliance Method

Compliance shall be based upon the reported manufacturer's emission rate of 0.0258 lb CO/gallon of fuel oil burned, multiplied by the maximum hourly fuel burning capacity of 142.2 gallons/hour for this emissions unit. If required, compliance shall be based upon stack testing in accordance with USEPA Reference Method 10 of 40 CFR Part 60, Appendix A.

- f. Emission Limitation
2.20 TPY CO, based on a rolling, 12-month summation

Applicable Compliance Method

Compliance shall be based upon record keeping as specified in Section C1. and shall be the sum of the 12 monthly diesel fuel usage records for the calendar year multiplied by an emission factor of 0.0258 lb CO/gallon of fuel oil burned, divided by 2,000 pounds per ton.

- g. Emission Limitation
1.06 lbs/hr OC

Applicable Compliance Method

Compliance shall be based upon the reported manufacturer's emission rate of 0.00745 lb OC/gallon of fuel oil burned, multiplied by the maximum hourly fuel burning capacity of 142.2 gallons/hour for this emissions unit

- h. Emission Limitation
0.64 TPY OC, based on a rolling, 12-month summation

Applicable Compliance Method

Issued: To be entered upon final issuance

Compliance shall be based upon record keeping as specified in Section C1. and shall be the sum of the 12 monthly diesel fuel usage records for the calendar year multiplied by an emission factor of 0.00745 lb OC/gallon of fuel oil burned, divided by 2,000 pounds per ton.

- i. Emission Limitation
47.64 lbs/hour NOx

Applicable Compliance Method

Compliance shall be based upon the reported manufacturer's emission factor of 0.335 lb NOx/gallon of fuel oil burned, multiplied by the maximum hourly fuel burning capacity of 142.2 gallons/hour for this emissions unit. If required, compliance shall be based upon stack testing in accordance with either USEPA Reference Method 7 or 7A (as appropriate) of 40 CFR Part 60, Appendix A.

- j. Emission Limitation
28.58 TPY NOx, based on a rolling, 12-month summation

Applicable Compliance Method

Compliance shall be based upon record keeping as specified in Section C.1. and shall be determined by multiplying each 12-month summation of the recorded fuel usages by the emission factor of 0.335 lb NOx/gallon of fuel oil burned, and dividing by 2,000 pounds per ton.

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

Applicable Compliance Method

Compliance with the visible particulate emissions limitation shall be demonstrated by the methods outlined in 40 CFR Part 60, Appendix A, Method 9.

2. Compliance with the diesel fuel usage limitation in Section B.1. of these terms and conditions shall be determined in accordance with the record keeping specified in Section C.1.
3. When firing fuel oil, except as provided below, compliance with the allowable SO2 emission limitation shall be demonstrated by documenting that the sulfur content of each shipment of oil received during a calendar month meets the limitation.

If required, the permittee shall demonstrate compliance with this emission limitation (when firing

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Emissions Unit ID: **P001**

2 fuel oil) in accordance with 40 CFR, Part 60, Appendix A, Method 6C.

F. Miscellaneous Requirements

1. The following terms and conditions of this permit are federally enforceable: A - E.