



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL CERTIFIED MAIL  
BUTLER COUNTY**

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: 14-05233**

**DATE: 2/7/2002**

City of Hamilton South Water Plant  
Randy Meyer  
2600 Airport Drive  
Columbus, OH 43219

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission  
236 East Town Street, Room 300  
Columbus, Ohio 43215

Very truly yours,

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

cc: USEPA

HCDES



**Permit To Install  
Terms and Conditions**

**Issue Date: 2/7/2002  
Effective Date: 2/7/2002**

**FINAL PERMIT TO INSTALL 14-05233**

Application Number: 14-05233  
APS Premise Number: 1409030715  
Permit Fee: **\$200**  
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

## 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.

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**

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 thirty (30) days after commencing operation of the emissions unit(s) covered by this permit.

#### **14. Construction Compliance Certification**

City of Hamilton South Water Plant

Facility ID: 1409030715

PTI Application: 14-05233

Issued: 2/7/2002

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

**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)	

Applicable Emissions  
Limitations/Control Measures

0.037 lb PM-PM10/MMBTU  
actual heat input;  
0.081 lb SO2/MMBTU actual heat  
input;  
3.67 lbs/ hr CO;  
1.06 lbs/hr OC;  
47.64 lbs/hr NOx;

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 SO2\*  
2.20 TPY CO\*  
0.64 TPY OC\*  
28.58 TPY NOx\*

\* 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

3745-31-05(A)(3).

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

**2. Additional Terms and Conditions**

- 2.a** The hourly and lb/MMBtu emission limitations outlined above are based upon the emission unit's potential to emit (PTE). Therefore, no hourly records are required to demonstrate compliance with these limits.
- 2.b** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the use of low sulfur bearing diesel fuel and compliance with the emission limitations and fuel usage limitations.

**B. Operational Restrictions**

1. The maximum annual diesel fuel usage for this emissions unit shall not exceed 170,640 gallons per year, based upon a rolling, 12-month summation of the fuel usage figures.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the diesel fuel usage limits specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Diesel Fuel Usage, in gallons</u>
1	28,440
1 - 2	56,880
1 - 3	85,320
1 - 4	92,430
1 - 5	99,540
1 - 6	106,650
1 - 7	120,870
1 - 8	135,090
1 - 9	149,310

1 - 10	156,420
1 - 11	163,530
1 - 12	170,640

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual diesel fuel usage limitation shall be based upon a rolling, 12-month summation of the diesel fuel usage figures.

2. The quality of oil burned in this emissions unit shall meet a sulfur content that is sufficient to comply with the allowable sulfur dioxide emission limitation specified in Section A.1. above.

### C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information:
  - a. The number of gallons of diesel fuel burned for each calendar month.
  - b. Beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling 12-month summation of the diesel fuel usage figures. Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative diesel fuel usage for each calendar month.
2. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated SO<sub>2</sub> emission rate in lb/MMBtu. The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch and the quality of the oil for those loads may be represented by a single batch analysis from the supplier.

The analyses for sulfur content and heat content shall be performed in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods (such as, ASTM methods D240, D4294, D6010), or equivalent methods as approved by the Director.

### D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month diesel fuel usage limitations and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative diesel fuel usage limitations.

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.
3. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any record that shows a deviation of the allowable sulfur dioxide limitation specified in Section A.1 of this permit. The notification shall include a copy of such record and shall be sent to the Hamilton County Department of Environmental Services within 45 days after the deviation occurs.
4. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

#### E. Testing Requirements

1. Compliance with the emissions limitation(s) in Section A.1. of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation  
 0.037 lb PM-PM10/MMBtu actual heat input  
  
Applicable Compliance Method  
 Compliance shall be based upon the reported manufacturer's emission factor of 0.00506 lb PM-PM10/gallon of fuel oil burned, divided by the heat content of the fuel oil of 0.1365 MMBTU/gallon. 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).
  - b. Emission Limitation  
 0.43 TPY PM/PM10, 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 the sum of the 12 monthly diesel fuel usage records for the calendar year multiplied by an emission factor of 0.00506 lb PM-PM10/gallon of fuel oil burned, divided by 2,000 pounds per ton.
  - c. Emission Limitation  
 0.081 lb SO2/MMBtu actual heat input

Applicable Compliance Method

Compliance shall be based upon the record keeping and analysis requirements specified in Section C.2. and the use of the equation contained in OAC rule 3745-18-04(F)(2).

Compliance shall be based upon the reported permittee's tested emission factor of 0.0111 lb SO<sub>2</sub>/gallon of fuel oil burned, divided by the heat content of the fuel oil of 0.1365 MMBtu/gallon.

- d. Emission Limitation  
0.95 TPY SO<sub>2</sub>, 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 SO<sub>2</sub>/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

Emissions Unit ID: P001

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 SO<sub>2</sub> 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 # 2 fuel oil) in accordance with 40 CFR, Part 60, Appendix A, Method 6C.

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City of

PTI A

Issued: 2/7/2002

Emissions Unit ID: **P001**

**F. Miscellaneous Requirements**

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