



State of Ohio Environmental Protection Agency

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

**CERTIFIED MAIL**

Street Address:

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

Mailing Address:

Lazarus Gov.  
Center

**Application No: 02-2739**

**DATE: 09/22/1999**

Canaan Compressor Station  
Lillian L Woolley  
500 Renaissance Center RC 612  
Detroit, MI 48243

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

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

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

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

Very truly yours,

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

cc: USEPA  
DAPC, NEDO



STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

---

**Terms and  
Conditions**

---

**Issue Date: 09/22/1999  
Effective Date: 09/22/1999**

**FINAL PERMIT TO INSTALL 02-2739**

Application Number: 02-2739  
APS Premise Number: 0285000397  
Permit Fee: **\$500**  
Name of Facility: Canaan Compressor Station  
Person to Contact: Lillian L Woolley  
Address: 500 Renaissance Center RC 612  
Detroit, MI 48243

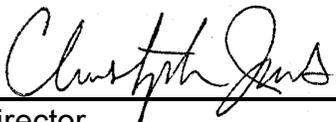
Location of proposed air contaminant source(s) [emissions unit(s)]:  
**714 E Sterling Road  
Creston, Ohio**

Description of proposed emissions unit(s):  
**1-15,000 HP GAS-FIRED TURBINE/PIPELINE COMPRESSOR AND 1-500 HP GAS-FIRED IC  
ENGINE/EMERGENCY ELECTRIC GENERATOR.**

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

**Canaan Compressor Station**

PTI Application: **02-2739**

Date: **09/22/1999**

Facility ID: **0285000397**

## **Part I - GENERAL TERMS AND CONDITIONS**

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

#### **1. Monitoring and Related Recordkeeping and Reporting Requirements**

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
  - i. The date, place (as defined in the permit), and time of sampling or measurements.
  - ii. The date(s) analyses were performed.
  - iii. The company or entity that performed the analyses.
  - iv. The analytical techniques or methods used.
  - v. The results of such analyses.
  - vi. The operating conditions existing at the time of sampling or measurement.
- b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
  - i. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
  - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be

**Canaan Compressor Station**PTI Application: **02-2739**Date: **09/22/1999**Facility ID: **0285000397**

made to the appropriate Ohio EPA District Office or local air agency. The written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See B.14 below if no deviations occurred during the quarter.

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

**2. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

**3. Risk Management Plans**

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

**4. Title IV Provisions**

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

**Canaan Compressor Station**PTI Application: **02-2739**Date: **09/22/1999**Facility ID: **0285000397****5. Severability Clause**

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

**6. General Requirements**

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

**7. Fees**

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit To Install fees within 30 days after the issuance of this Permit To Install.

**Canaan Compressor Station**

PTI Application: **02-2739**

Date: **09/22/1999**

Facility ID: **0285000397**

## **8. Federal and State Enforceability**

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

## **9. Compliance Requirements**

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
  - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
  - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
  - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
  - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress

**Canaan Compressor Station**PTI Application: **02-2739**Date: **09/22/1999**Facility ID: **0285000397**

reports shall contain the following:

- i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
- ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

**10. Permit To Operate Application**

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).
- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within thirty (30) days after commencing operation of the source(s) covered by this permit.

**Canaan Compressor Station**

PTI Application: **02-2739**

Date: **09/22/1999**

Facility ID: **0285000397**

**B. State Only Enforceable Permit To Install General Terms and Conditions**

**1. Compliance Requirements**

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

**2. Reporting Requirements Related to Monitoring and Recordkeeping Requirements**

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping 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,

**Canaan Compressor Station**Facility ID: **0285000397**PTI Application: **02-2739**Date: **09/22/1999**

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. 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.

**6. 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.

**7. 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.

**8. 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 are inadequate 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

**Canaan Compressor Station**PTI Application: **02-2739**Date: **09/22/1999**Facility ID: **0285000397**

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 prove to be inadequate or cannot meet applicable standards.

**9. 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.

**10. 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).

**11. Best Available Technology**

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

**12. 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.

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

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the

**Canaan Compressor Station**

PTI Application: **02-2739**

**Date: 09/22/1999**

Facility ID: **0285000397**

previous calendar quarters.

**Canaan Compressor Station**Facility ID: **0285000397**PTI Application: **02-2739**Date: **09/22/1999****C. Permit To Install Summary of Allowable Emissions**

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

**SUMMARY (for informational purposes only)**  
**TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

<u>Pollutant</u>	<u>Tons Per Year</u>
NO <sub>x</sub>	103.4
CO	118.68
TOC	2.7
VOC	35.0
PM <sub>10</sub>	22.02
SO <sub>2</sub>	11.7
Formaldehyde	4.95

---

**Canaan Compressor Station**

Facility ID: **0285000397**

PTI Application: **02-2739**

Date: **09/22/1999**

**Part II - FACILITY SPECIFIC TERMS AND CONDITIONS**

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

None

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

None

Canaa

PTI A<sub>1</sub>

Date: 09/22/1999

Emissions Unit ID: B001

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

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
15,000 HP (122 mmBtu/hr) Natural Gas-fired Turbine/Gas Pipeline Compressor (B001)	40 CFR Part 60, Subpart GG	Emissions of Nitrogen Oxides shall not exceed 245.0 parts per million, by volume, (ppmv) at 15% oxygen, on a dry basis. **
	OAC rule 3745-17-11(B)(4)	The particulate emissions from the engine's exhaust shall not exceed .040 pound per million Btu of actual heat input.
	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
	OAC rule 3745-18-06(E)	The sulfur dioxide emissions from the engine's exhaust shall not exceed 0.5 pound per million Btu of actual heat input.**

**2. Additional Terms and Conditions**

- 2.a \*\* This emission limitation is less stringent than the corresponding limitation(s) specified in Section B.I.1 of this permit.

15

**Canaa**

PTI A<sub>1</sub>

**Date: 09/22/1999**

Emissions Unit ID: **B001**

- 2.b This emissions unit shall be equipped with a dry low NOx combustor control device.

## II. Operational Restrictions

1. The fuel burned in this emissions unit shall not contain sulfur in excess of 0.8%, by weight [from 40 CFR Part 60.333(b)].
2. The permittee shall burn only natural gas in this emissions unit.

## III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall analyze and maintain records of the fuel-bound sulfur content in accordance with the provisions found in 40 CFR Part 60, Subpart GG. In accordance with U.S. EPA guidance, the fuel-bound nitrogen content will be assumed to be zero.
2. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
3. 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, if a strip-chart recorder is employed, for continuous monitoring instrumentation, and copies of all reports required by the permit. Such records may be maintained in computerized form.

## IV. Reporting Requirements

1. The permittee shall submit annual deviation reports which identify all periods during which the sulfur content of the fuel fired in this emissions unit exceeded 0.8%, by weight. These reports shall be submitted by January 31 of each year.
2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
3. 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,

Emissions Unit ID: **B001**

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.)

## V. Testing Requirements

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

- 1.a Emission Limitation: Particulate emissions shall not exceed 0.040 lbs/mmBtu.

Applicable Compliance Method: Compliance with this emission limitation shall be determined by multiplying an emission factor of .0193 lb/mmBtu by the maximum actual heat input for this emissions unit (122 mmBtu/hr). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-1.

- 1.b Fuel Sulfur Content Limitation: The fuel burned in this emissions unit shall not contain sulfur in excess of 0.8%, by weight.

Applicable Compliance Method: The permittee shall determine compliance with the fuel sulfur content limitation in accordance with the procedures specified in ASTM D 1072-80, D 3031-81, D 4084-82, or D 3246-81 [per 40 CFR 60.335(d)].

- 1.c Emission Limitation: Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

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

- 1.d Emission Limitations: NO<sub>x</sub> emissions shall not exceed 245 ppmv at 15% oxygen, on a dry basis.

Applicable Compliance Method: Compliance shall be determined by using appropriate NSPS test requirements as specified in 40 CFR 60.8 and 40 CFR Part 60, Subpart GG, as they apply to an emissions unit of this type with a heat input of greater than 100 mmBtu/hr.

**Canaan Compressor Station**

PTI Application: 02 2720

**Date:**

Facility ID: 0285000397

Emissions Unit ID: **B001**2. Emissions Testing Requirement (B001):

The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- a. The emission testing shall be conducted prior to the issuance of a Permit to Operate for emissions unit B001, and within 90 days of the initial startup of this natural gas-fired turbine/compressor unit.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for nitrogen oxides (NO<sub>x</sub>), particulates, and sulfur dioxide (SO<sub>2</sub>).
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for NO<sub>x</sub> and SO<sub>2</sub>, Method 20 of 40 CFR Part 60, Appendix A [as specified for NSPS emissions units in 40 CFR 60.335(c)(3)]; and for particulates, Methods 1-5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- d. The test(s) shall be conducted while the emissions unit is operating at 30, 50, 75 and 100% of peak load or at 4 points in the normal operating range of the gas turbine, including the minimum point in the range and peak load.

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

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

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

19

**Canaa**

PTI A<sub>1</sub>

**Date: 09/22/1999**

Emissions Unit ID: **B001**

warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

**VI. Miscellaneous Requirements**

None.

**B. State Only Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
15,000 HP (122 mmBtu/hr) Natural Gas-fired Turbine/Gas Pipeline Compressor (B001)	OAC rule 3745-31-05	Particulate emissions shall not exceed 4.88 lbs/hr and 21.4 TPY.  Sulfur dioxide emissions shall not exceed 2.4 lb/hr and 10.7 TPY.  Volatile organic compound (VOC) emissions shall not exceed 8.0 lbs/hr and 35 TPY.  Nitrogen oxides (NO <sub>x</sub> ) emissions shall not exceed 22.1 lbs/hr and 96.8 TPY.  Carbon monoxide (CO) emissions shall not exceed 26.9 lbs/hr and 117.8 TPY.  Formaldehyde emissions shall not exceed 1.13 lbs/hr and 4.95 TPY.

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

21

**Canaan Compressor Station**

PTI Application: **02 0720**

**Date:**

Facility ID: **0285000397**

Emissions Unit ID: **B001**

None.

### III. Monitoring and/or Recordkeeping Requirements

1. Permittee shall maintain records indicating the actual hours of operation of this emissions unit on both a monthly and a cumulative annual basis.

### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all periods during which the terms and conditions listed above were exceeded or the required records were not maintained.
2. Such report shall be sent to the Northeast District Office within 30 days following the end of the calendar month during which the exceedance or deviation occurred.
3. Permittee shall submit an annual report which summarizes the monthly and cumulative annual hours of operation of this emissions unit. This report shall be submitted to the Northeast District Office of the Ohio EPA by January 31 of each year for data recorded during the previous calendar year.

### V. Testing Requirements

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

- 1.a Emission Limitation: Particulate emissions shall not exceed 4.9 lbs/hr and 21.5 TPY.

Applicable Compliance Method: Compliance with the hourly emissions limitation shall be determined by multiplying an emission factor of .0193 lb/mmBtu by the maximum actual heat input for this emissions unit (122.0 mmBtu/hr). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-1. Compliance with the annual emissions limitation shall be determined by applying the calculated hourly emissions limit to the annual hours of operation as recorded per B.III above.

- 1.b Emission Limitation: Sulfur dioxide emissions shall not exceed 2.4 lb/hr and 10.7 TPY.

Applicable Compliance Method: Compliance with the hourly emissions limitation shall be determined by multiplying an emission factor of  $0.94S$  lb/mmBtu (where  $S$  = the % sulfur in the fuel) by the maximum actual heat input for this emissions unit (122 mmBtu/hr). This emission factor is specified in USEPA reference document AP-42, Fifth Edition,

Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-1. Compliance with the annual emissions limitation shall be determined by applying the calculated hourly emissions limit to the annual hours of operation as recorded per B.III above. The sulfur content of the fuel shall be determined in accordance with the procedures specified in Section A.V.1.b above.

- 1.c Emission Limitation: Volatile organic compound emissions shall not exceed 8.0 lbs/hr and 35.0 TPY.

Applicable Compliance Method: Compliance with the hourly emissions limitation shall be determined by multiplying an emission factor of .065 lb/mmBtu by the maximum actual heat input for this emissions unit (122.0 mmBtu/hr). This emission factor is specified by the manufacturer based on testing of similar units. Compliance with the annual emissions limitation shall be determined by applying the calculated hourly emissions limit to the annual hours of operation as recorded per B.III above.

- 1.d Emission Limitation: Nitrogen oxides (NO<sub>x</sub>) emissions shall not exceed 22.1 lbs/hr and 96.8 TPY.

Applicable Compliance Method: Compliance with the hourly emissions limitation shall be determined by multiplying an emission factor of 0.67 grams/HP-HR by the maximum rated capacity of this emissions unit (15,000 horsepower) divided by 453.6. This emission factor is specified by the manufacturer based on testing of similar units employing dry, low NO<sub>x</sub> combustor control devices. Compliance with the annual emissions limitation shall be determined by applying the calculated hourly emissions limit to the annual hours of operation as recorded per B.III above.

- 1.e Emission Limitation: Carbon monoxide (CO) emissions shall not exceed 26.9 lbs/hr and 21.5 TPY.

Applicable Compliance Method: Compliance with the hourly emissions limitation shall be determined by multiplying an emission factor of 0.81 grams/HP-HR by the maximum rated capacity of this emissions unit (15,000 horsepower) divided by 453.6. This emission factor is specified by the manufacturer based on testing of similar units employing dry, low NO<sub>x</sub> combustor control devices. Compliance with the annual emissions limitation shall be determined by applying the calculated hourly emissions limit to the annual hours of operation as recorded per B.III above.

- 1.f Emission Limitation: Formaldehyde emissions shall not exceed 1.13 lbs/hr and 4.95 TPY.

**Canaan Compressor Station**

PTI Application: 02 0720

**Date:**

Facility ID: 0285000397

Emissions Unit ID: **B001**

Applicable Compliance Method: Compliance with the hourly emissions limitation shall be determined by multiplying an emission factor of 9.3 lbs per billion Btu by the maximum actual heat input for this emissions unit (122.0 mmBtu/hr). This emission factor is specified in the Gas Research Institute's report on Air Toxics Regulations and Their Potential Impact on the Natural Gas Industry (October, 1992). Compliance with the annual emissions limitation shall be determined by applying the calculated hourly emissions limit to the annual hours of operation as recorded per B.III above.

2. Emission testing requirements:

The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- a. The emission testing shall be conducted prior to the issuance of a Permit to Operate for emissions unit B001, and within 90 days of the initial startup of this natural gas-fired turbine/compressor unit.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for nitrogen oxides NO<sub>x</sub>, particulates, sulfur dioxide (SO<sub>2</sub>), volatile organic compounds (VOC), carbon monoxide (CO), and formaldehyde.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for NO<sub>x</sub> and SO<sub>2</sub>, Method 20 of 40 CFR Part 60, Appendix A [as specified for NSPS emissions units in 40 CFR 60.335(c)(3)]; for particulates, Methods 1-5 of 40 CFR Part 60, Appendix A; for VOC, Method 18 of 40 CFR Part 60, Appendix A; for carbon monoxide, Method 10 of 40 CFR Part 60, Appendix A; and for formaldehyde, Method 0011 of 40 CFR Part 63, Appendix IX. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- d. The test(s) shall be conducted while the emissions unit is operating at 30, 50, 75 and 100% of peak load or at 4 points in the normal operating range of the gas turbine, including the minimum point in the range and peak load.

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

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions

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

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

#### **VI. Miscellaneous Requirements**

None

**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)  
[Continued]**

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
500 HP (4.0 mmBtu/hr) Natural Gas-fired, Internal Combustion Engine Driven Emergency Electrical Generator (B002).	OAC 3745-17-11(B)(5)(a) rule  OAC 3745-17-07(A)	Particulate emissions from this emissions unit shall not exceed 0.31 pound per million Btu (lb/mmBtu) of actual heat input.  Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed twenty (20) percent opacity, as a six-minute average, except for a period of not more than six (6) consecutive minutes in any sixty-minute period. Visible particulate emissions shall not exceed sixty (60) percent opacity, as a six-minute average, at any time.

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

1. The permittee shall burn only natural gas in this emissions unit.

Emissions Unit ID: **B002**

### **III. Monitoring and/or Recordkeeping Requirements**

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. 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, if a strip-chart recorder is employed, for continuous monitoring instrumentation, and copies of all reports required by the permit. Such records may be maintained in computerized form.

### **IV. Reporting Requirements**

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

### **V. Testing Requirements**

1. Compliance with the emission limitations in Section A.I. of these terms and conditions shall

be determined in accordance with the following methods:

- 1.a Emission Limitation: 0.31 pound particulate matter per mmBtu of actual heat input.

Applicable Compliance Method: Compliance shall be based upon the use of an emission factor as specified in AP-42, "Compilation of Air Pollution Emission Factors" (7/93), section 3.1, table 3.1-1. If required pursuant to OAC 3745-15-04, the permittee shall demonstrate compliance with the particulate emissions limits of this permit by means of physical testing of the effluent from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, "Standards of Performance for New Stationary Sources", Appendix A, Method 5, and in OAC 3745-17-03(B)(7).

- 1.b Emissions Limitation: Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed twenty (20) percent opacity, as a six-minute average, except for a period of not more than six (6) consecutive minutes in any sixty-minute period. Visible particulate emissions shall not exceed sixty (60) percent opacity, as a six-minute average, at any time.

Applicable Compliance Method: Compliance shall be determined through visible emission observations in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

## **VI. Miscellaneous Requirements**

None

**B. State Only Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
500 HP (4.0 mmBtu/hr) Natural Gas-fired, Internal Combustion Engine Driven Emergency Electrical Generator (B002).	OAC rule 3745-31-05	<p>Nitrogen oxides (NOx) emissions from this emissions unit shall not exceed 13.2 lbs/hr and 6.6 TPY.</p> <p>Carbon monoxide emissions from this emissions unit shall not exceed 1.76 lbs/hr and 0.88 TPY.</p> <p>Total organic compound (TOC) emissions from this emissions unit shall not exceed 5.4 lbs/hr and 2.7 TPY.</p> <p>Particulate emissions from this emissions unit shall not exceed 1.24 lbs/hr and 0.62 TPY.</p> <p>Sulfur dioxide (SO2) emissions from this emissions unit shall not exceed 2.0 lbs/hr. and 1.0 TPY.</p> <p>See section B.II.</p>

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

1. The total annual operating hours for this emissions unit, measured on a rolling 365-day summation basis, shall not exceed 1000.

### **III. Monitoring and/or Recordkeeping Requirements**

1. Permittee shall maintain daily records of the operation of this emissions unit which indicate the following information:
  - a. The date and time of each start-up and shut-down of this emissions unit;
  - b. The number of hours each day that this emissions unit is operated (i.e., engine firing natural gas and driving the electrical generator);
  - c. The total cumulative hours of operation of this emissions unit on a rolling 365-day summation basis.

### **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify all periods during which the terms and conditions listed above were exceeded or the required records were not maintained.
2. Such report shall be sent to the Northeast District Office within 30 days following the end of the calendar month during which the exceedance or deviation occurred.
3. Permittee shall submit an annual report which summarizes, on a monthly and rolling 365-day summation basis, the recorded data indicated above relative to the operation of this emissions unit. This report shall be submitted to the Northeast District Office of the Ohio EPA by January 31 of each year for data recorded during the previous calendar year.

### **V. Testing Requirements**

1. Compliance with the emission limitation(s) in Sections A.I. of these terms and conditions shall be determined in accordance with the following method(s):
  - 1.a Emission Limitation: Particulate emissions shall not exceed 1.24 lbs/hr and 0.62 TPY.

Applicable Compliance Method: Compliance with the hourly emissions limitation shall be determined by multiplying an emission factor of .0193 lb/mmBtu by the maximum actual heat input for this emissions unit (4.0 mmBtu/hr). This emission factor is specified in USEPA reference

document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-1. Compliance with the annual emissions limitation shall be determined by applying the calculated hourly emissions limit to the annual hours of operation as recorded per B.III above. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1-5.

1.b Emission Limitation: Sulfur dioxide emissions shall not exceed 2.0 lb/hr and 1.0 TPY.

Applicable Compliance Method: Compliance with the hourly emissions limitation shall be determined by multiplying an emission factor of  $0.94S$  lb/mmBtu (where  $S$  = the % sulfur in the fuel) by the maximum actual heat input for this emissions unit (4.0 mmBtu/hr). This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-1. Compliance with the annual emissions limitation shall be determined by applying the calculated hourly emissions limit to the annual hours of operation as recorded per B.III above.

1.c Emission Limitation: Total organic compound emissions shall not exceed 5.4 lbs/hr and 2.7 TPY.

Applicable Compliance Method: Compliance with the hourly emissions limitation shall be determined by multiplying an emission factor of 4.9 grams/HP-HR by the maximum rated capacity of this emissions unit (500 horsepower) divided by 453.6. This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.2, Table 3.2-1.. Compliance with the annual emissions limitation shall be determined by applying the calculated hourly emissions limit to the annual hours of operation as recorded per B.III above.

1.d Emission Limitation: Nitrogen oxides (NO<sub>x</sub>) emissions shall not exceed 13.2 lbs/hr and 6.6 TPY.

Applicable Compliance Method: Compliance with the hourly emissions limitation shall be determined by multiplying an emission factor of 12.0 grams/HP-HR by the maximum rated capacity of this emissions unit (500 horsepower) divided by 453.6. This emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.2, Table 3.2-1. Compliance with the annual emissions limitation shall be determined by applying the calculated hourly emissions limit to the annual hours of operation as recorded per B.III above. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 7E.

1.e Emission Limitation: Carbon monoxide (CO) emissions shall not exceed 1.76 lbs/hr and 0.88 TPY.

Applicable Compliance Method: Compliance with the hourly emissions limitation shall be determined by multiplying an emission factor of 1.6 grams/HP-HR by the maximum rated capacity

Emissions Unit ID: **B002**

of this emissions unit (500 horsepower) divided by 453.6. This emission factor is specified in USEPA reference document AP-42, Fifth Edition,

Emissions Unit ID: **B002**

Compilation of Air Pollution Emission Factors, Section 3.2, Table 3.2-1.. Compliance with the annual emissions limitation shall be determined by applying the calculated hourly emissions limit to the annual hours of operation as recorded per B.III above. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 10.

**VI. Miscellaneous Requirements**

None.