



State of Ohio Environmental Protection Agency

Street Address:

Lazarus Gov. Center  
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Columbus, OH 43215

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P.O. Box 1049  
Columbus, OH 43216-1049

**RE: FINAL PERMIT TO INSTALL  
VAN WERT COUNTY  
Application No: 03-13410**

**CERTIFIED MAIL**

Y	TOXIC REVIEW
	PSD
Y	SYNTHETIC MINOR
	CEMS
	MACT
	NSPS
	NESHAPS
	NETTING
	MAJOR NON-ATTAINMENT
Y	MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

**DATE:** 11/5/2002

National Power Cooperative Inc  
Richard D Auteuil  
PO Box 26036  
Columbus, OH 432260036

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,

Michael W. Ahern, Supervisor  
Field Operations and Permit Section  
Division of Air Pollution Control

CC: USEPA  
Alan Lloyd OEPA/DAPC

NWDO



**Permit To Install  
Terms and Conditions**

**Issue Date: 11/5/2002  
Effective Date: 11/5/2002**

**FINAL PERMIT TO INSTALL 03-13410**

Application Number: 03-13410

APS Premise Number: 0381000043

Permit Fee: **\$675**

Name of Facility: National Power Cooperative Inc

Person to Contact: Richard D Auteuil

Address: PO Box 26036  
Columbus, OH 432260036

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

**4406 Mentzer Road  
Convoy, Ohio**

Description of proposed emissions unit(s):

**Administrative modification of PTI 03-13410.**

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. 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 of federally enforceable 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 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.10 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.

## **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.

## **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 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.

**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. 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.

**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 of state-only enforceable 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 state-only required 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. 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.

**4. 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.

**5. 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.

## **6. 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.

## **7. 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).

## **8. 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.

## **9. 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 previous calendar quarters.

### **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**

<b><u>Pollutant</u></b>	<b><u>Tons Per Year</u></b>
NOx	243.0
CO	242.3
VOC	21.4
PE	79.6
SO2	74.9
formaldehyde	4.9

## 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

1. The permit to install for these emissions units ( P001, P002, and P003) were evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model. The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the MAGLC. The following summarizes the results of the modeling for the "worst case" pollutants:

Pollutant: formaldehyde

TLV (ug/m3): 273 (converted from STEL)

Maximum Hourly Emission Rate (lbs/hr): 3.9\*

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 3.23

MAGLC (ug/m3): 6.49

Pollutant: sulfuric acid

TLV (ug/m3): 1000

Maximum Hourly Emission Rate (lbs/hr): 33.0\*

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.983

MAGLC (ug/m3): 23.8

\* For emissions units P001, P002, and P003 combined.

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used, or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;

- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
2. If the permittee determines that the “Air Toxic Policy” will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a “modification” under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the “Air Toxic Policy:”

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the “Air Toxic Policy”; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the “Air Toxic Policy” for the change.

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

**A. State and Federally Enforceable Section**

**I. Applicable Emission 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 emission 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 Emission Limitations/Control Measures</u>
P001 - GE 7FA simple cycle combustion turbine, 167 MW (nominal)	OAC rule 3745-31-05(A)(3)	Best Available Technology (BAT) Requirements  See A.I.2.a below - BAT control requirements.  See A.I.2.e below - other rules included as part of BAT.  <u>BAT emission limitations:</u>  when firing natural gas, during non-startup and shutdown operations, emissions shall not exceed:  9 ppmvd of nitrogen oxides (NO <sub>x</sub> ) at 15% oxygen, (at full load, as a 1-hr average)  65.0 lbs of NO <sub>x</sub> /hr  12.0 lbs of sulfur dioxide (SO <sub>2</sub> )/hr  32.0 lbs of carbon monoxide (CO)/hr  3.2 lbs of volatile organic compounds (VOC)/hr  21.3 lbs of particulate emissions (PE)/hr  1.3 lbs of formaldehyde/hr

OAC rule 3745-31-05(D)

Visible particulate emissions shall not exceed 10% opacity as a 6-minute average, when firing natural gas.

when firing #2 oil/distillate oil, during non-startup and shutdown operations, emissions shall not exceed:

42 ppmvd of NO<sub>x</sub> at 15% oxygen (at full load, as a 1-hr average)

347.0 lbs of NO<sub>x</sub>/hr

107.0 lbs of SO<sub>2</sub>/hr

72.0 lbs of CO/hr

8.0 lbs of VOC/hr

37.0 lbs of PE/hr

0.5 lb of formaldehyde/hr

startup and shutdown emissions from emissions units P001, P002, and P003, combined, shall not exceed the following limitations: 140.2 tons of CO/yr, 22.0 tons of NO<sub>x</sub>/yr, and 11.0 tons of VOC/yr (see A.I.2.f)

#### Special Terms and Conditions

See A.II.1 below - operational restrictions.

emissions from emissions units P001, P002, and P003, combined, shall not exceed the following limitations per rolling, 12-month period: 74.9 tons of SO<sub>2</sub>, 242.3 tons of CO, 243.0 tons of NO<sub>x</sub>, 79.6 tons of PE, 4.9 tons of formaldehyde, and 21.2 tons of VOC

	Other Applicable Rules
OAC rule 3745-17-07(A)	When firing #2 oil/distillate oil, visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as specified by rule.
40 CFR Part 60, Subpart GG	See A.I.2.c below.
OAC rule 3745-18-06(F)	See A.I.2.b below.
OAC rule 3745-17-11(B)(4)	See A.I.2.b below.
OAC Chapter 3745-103	See A.I.2.d below.
40 CFR Parts 72 and 75	See A.I.2.d below.

## 2. Additional Terms and Conditions

- 2.a** The permittee shall install, operate and maintain dry low NOx burners and a water injection system on this emissions unit.
- 2.b** The emission limitation based on this applicable rule is less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
- 2.c** The emission limitation and sulfur content restriction specified in this applicable rule are less stringent than the emission limitation and sulfur content restriction established pursuant to OAC rule 3745-31-05(A)(3). Except as provided for in the terms and conditions in this permit, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60, Subpart GG.
- 2.d** If the permittee is subject to the requirements of 40 CFR Parts 72 and 75 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.
- 2.e** The requirements of OAC rule 3745-31-05(A)(3) also include compliance with OAC rule 3745-31-05(D), and when firing #2 oil/distillate oil, OAC rule 3745-17-07(A).
- 2.f** The annual emission limitations for startup and shutdown emissions apply for both the firing of natural gas and #2 oil/distillate oil.
- 2.g** "Full load" shall be defined as the electrical output at the maximum achievable fuel flow rate to the emissions unit for the ambient and equipment conditions during any operating

hour. Any actual electrical output within 10% of the calculated electrical output shall be considered full load.

**2.h** "Startup/shutdown operation" or "startup and shutdown operation" occurs when the emissions unit is running at less than 50% of the electric output at full load.

## II. Operational Restrictions

1. The maximum annual hours of operation for emissions units P001, P002, and P003, combined, shall not exceed any of the following:
  - a. 7477 hours per rolling, 12-month period when firing natural gas;
  - b. 1400 hours per rolling, 12-month period when firing #2 oil/distillate oil; and
  - c. 7477 cumulative hours of operation per rolling, 12-month period for the firing of natural gas and #2 oil/distillate oil, where:

1hour of operation firing natural gas = 1.0 hour of operation; and  
1hour of operation firing #2 oil/distillate oil = 5.34 hours of operation.

To ensure enforceability during the first 12 calendar months of operation following the initial startup of emissions unit P001, P002, or P003, the permittee shall not exceed the cumulative hourly operational restrictions specified in the following table:

Month	Cumulative hours of firing natural gas& #2 oil/distillate oil
1	1800
1-2	3600
1-3	5400
1-4	7200
1-12	7477

After the first 12 calendar months of operation, compliance with the cumulative annual hourly operational restriction shall be based upon a rolling, 12-month summation of the cumulative hourly operating data. Startup and shutdown periods are to be included in these cumulative hourly operational restrictions.

2. With the exception of startup and shutdown periods, emissions unit P001 shall be operated at a minimum of 50% of full load. The permittee may petition the Ohio EPA, Northwest District Office (NWDO) to operate at a greater load range if it can demonstrate to the Agency's

satisfaction that the emissions unit will comply with all applicable emission limitations in this permit, and the modeling requirements specified in Engineering Guide no. 69.

3. The permittee shall fire only natural gas and #2 oil/distillate oil in this emissions unit.
4. The maximum sulfur content of the natural gas shall not exceed 0.007%, by weight. The maximum sulfur content of the #2 oil/distillate oil shall not exceed 0.05%, by weight.
5. The permittee shall be limited to 550 startups and 550 shutdowns for emissions units P001, P002, and P003, combined, per rolling, 12-month period.

### **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall maintain monthly records of the following information for emissions units P001, P002, and P003, combined:
  - a. the number of hours of operation when firing natural gas;
  - b. the number of hours of operation when firing #2 oil/distillate oil;
  - c. during the first 12 calendar months of operation, the cumulative hours of operation when firing natural gas and #2 oil/distillate oil;
  - d. after the first 12 calendar months of operation, the rolling, 12-month summations of the hours of operation when firing natural gas, when firing #2 oil/distillate oil, and the cumulative hours of operation when firing natural gas and #2 oil/distillate oil;
  - e. the number of startups and shutdowns;
  - f. the duration of each startup and shutdown;
  - g. the startup and shutdown emissions\* for NO<sub>x</sub>, VOC, and CO, in tons;
  - h. the emission rates\* for PE, NO<sub>x</sub>, SO<sub>2</sub>, CO, VOC, and formaldehyde, in tons;
  - i. during the first 12 calendar months of operation, the cumulative emission rates for PE, NO<sub>x</sub>, SO<sub>2</sub>, CO, VOC, and formaldehyde (including startup and shutdown emissions for NO<sub>x</sub>, CO, and VOC), in tons; and
  - j. after the first 12 calendar months of operation, the rolling, 12-month summations of the emission rates for PE, NO<sub>x</sub>, SO<sub>2</sub>, CO, VOC, and formaldehyde (including startup and shutdown emissions for NO<sub>x</sub>, CO, and VOC), in tons.

\* The permittee shall use the continuous NO<sub>x</sub> emission monitoring data to determine the NO<sub>x</sub> emissions for these emissions units. During any period when the continuous NO<sub>x</sub> emission monitoring systems are not operational, the permittee shall use the appropriate missing data procedures specified in 40 CFR Part 75 to determine the NO<sub>x</sub> emissions. The

permittee shall use the most recent emission test data to determine the PE, CO, VOC, and formaldehyde emissions for these emissions units. The permittee shall use the most recent emission test data or the fuel flow and fuel sulfur content data to determine the SO<sub>2</sub> emissions for these emissions units. The following permittee-supplied emission factors may be used to determine the CO and VOC emissions during each emissions unit startup and shutdown: for natural gas (#2 oil/distillate oil) startups; 360.0 (220.0) lbs of CO/hr and 20.0 (20.0) lbs of VOC/hr, and for shutdowns; 150(120) lbs of CO/hr and 20.0(20.0) lbs of VOC/hr.

2. For each day during which the permittee fires a fuel other than natural gas or #2 oil/distillate oil, the permittee shall maintain a record of the type and quantity of fuel fired in this emissions unit.
3. The permittee shall install, operate and maintain equipment to continuously monitor and record the fuel flow to this emissions unit when the emissions unit is in operation. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 75. If the fuel flow monitoring and/or recording equipment is (are) not in service when the emissions unit is in operation, the permittee shall comply with the appropriate missing data procedures specified in 40 CFR Part 75.
4. Except as provided below, the permittee shall comply with the fuel monitoring and testing provisions specified in 40 CFR Part 60.334(b) and 40 CFR Part 60.335(d). In lieu of complying with the aforementioned fuel sulfur content monitoring and testing provisions, the permittee may elect to comply with the applicable monitoring and testing requirements specified in 40 CFR Part 75, Appendix D, Sections 2.2 and 2.3 for fuel oil and natural gas, respectively.

Where applicable, the permittee shall maintain records of the sulfur contents and heating values of the fuels fired in this emissions unit. ASTM D2880, D129, D1552, D2622, or D4294 shall be used to determine the sulfur content of the fuel oil and ASTM D1072, D3031, D4084, D4468, D5504, or D3246 shall be used to determine the sulfur content of the natural gas. ASTM D240 shall be used to determine the heat value of the fuel oil and ASTM D1826, D3588, or D4891 shall be used to determine the heat value of the natural gas. The most recent revisions to the applicable test method shall be used for these analyses. Alternative, equivalent methods may be used upon written approval by the Ohio EPA, NWDO.

5. Continuous NO<sub>x</sub> Emission Monitoring
  - a. Prior to the installation of the continuous NO<sub>x</sub> monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 for approval by the Ohio EPA, Central Office.
  - b. Within 60 days after achieving full load, but not later than 180 days after the initial startup of this emissions unit, the permittee shall conduct certification tests of such equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2, and/or 40 CFR Part 75, unless an extension is granted by the Ohio EPA. Personnel from the Ohio EPA, NWDO shall be notified 30 days prior to initiation of the

applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the Ohio EPA, NWDO within 30 days after the test is completed. Copies of the test results shall be sent to the Ohio EPA, NWDO. Certification of the continuous NO<sub>x</sub> monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2 and/or 40 CFR Part 75.

- c. The permittee shall install, operate and maintain, equipment to continuously monitor and record NO<sub>x</sub> from this emissions unit in units of the applicable standards. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.
  - d. The permittee shall maintain records of the following data obtained by the continuous NO<sub>x</sub> monitoring system: ppmvd NO<sub>x</sub> at 15% oxygen, at full load (hourly average), lbs of NO<sub>x</sub>/hr, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.
  - e. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous NO<sub>x</sub> monitoring system designed to ensure continuous valid and representative readings of NO<sub>x</sub> emissions in units of the applicable standards. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and/or 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO<sub>x</sub> monitoring system must be kept on site and available for inspection during regular office hours.
6. In lieu of installing an oxygen monitor as part of the NO<sub>x</sub> monitoring system, which is used to demonstrate compliance with the full load (as defined in A.I.2.g) NO<sub>x</sub> emission limitations (9ppmvd at 15% oxygen as a 1-hr average when firing natural gas and 42ppmvd at 15% oxygen as a 1-hr average when firing #2 oil/distillate oil), the permittee made a request to install a carbon dioxide monitor and agreed to demonstrate, through U.S. EPA-approved emission tests, that the NO<sub>x</sub> monitoring system (nitrogen oxides analyzer and carbon dioxide monitor) would provide accurate data in the units of the applicable standards. The permittee installed the carbon dioxide monitor, and on July 16, 2002, the permittee successfully completed the monitoring system accuracy demonstration.
  7. The installation and operation of systems to continuously monitor and record emissions of NO<sub>x</sub> and the carbon dioxide content of the exhaust gasses may be performed in lieu of continuously monitoring the ratio of water to fuel fired in the turbine and monitoring the nitrogen content of the fuel being fired in the turbine, as required by 40 CFR Part 60.334.

8. The permittee shall maintain records that document the following:
  - a. the calculated full load for each operating hour;
  - b. the emissions unit's actual electrical output for each operating hour;
  - c. all periods of time when the emissions unit's actual electrical output was within 10% of the calculated full load; and
  - d. all periods of time when the emissions unit was operated at less than 50% of full load.

#### **IV. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify each day when a fuel other than natural gas or #2 oil/distillate oil was burned in this emissions unit.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month hours of operation limitations and, for the first 12 calendar months of operation, all exceedances of the maximum allowable hours of operation.
3. The permittee shall submit quarterly reports that identify each period during which an exemption for ice-fog provided in 40 CFR Part 60.332(f) is in effect. The report shall include the ambient conditions existing during the period, the date and time the air pollution control system was deactivated, and the date and time when the air pollution control system was reactivated.
4. The permittee shall submit quarterly deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.007%, by weight, or the sulfur content of the #2 oil/distillate oil exceed 0.05%, by weight.
5. Continuous NO<sub>x</sub> Emission Reporting
  - a. Pursuant to OAC rule 3745-15-04, ORC sections 3704.03(I) and 3704.031, and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, NWDO documenting the date, commencement and completion times, duration, magnitude, reason (if known) , and corrective actions taken (if any), of all instances of NO<sub>x</sub> values in excess of the applicable emission limitations specified in the terms and conditions of this permit (65.0 lbs/hr and 9 ppmvd at 15% oxygen (at full load (as defined in A.I.2.g), as a 1-hr average) when firing natural gas and 347.0 lbs/hr and 42 ppmvd at 15% oxygen (at full load (as defined in A.I.2.g), as a 1-hr average) when firing #2 oil/distillate oil). These reports shall also contain the total NO<sub>x</sub> emissions for the calendar quarter (in tons).

- b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, NWDO documenting any continuous NO<sub>x</sub> monitoring system downtime while the emissions unit was on line (date, time, duration, and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.
  - c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.
  - d. Pursuant to OAC rule 3745-15-04, and ORC sections 3704.03(I) and 3704.031, the permittee shall submit a summary of the excess emission report pursuant to 40 CFR Part 60.7. The summary shall be submitted to the Ohio EPA, NWDO within 30 days following the end of each calendar quarter in a manner prescribed by the Director.
6. The permittee shall submit quarterly deviation (excursion) reports that identify each time when this emissions unit was not in compliance with the emissions unit operating load requirements of condition A.II.2. above.
  7. In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess and emissions reports for emissions unit P001 in accordance with this permit.
  8. The quarterly deviation (excursion) reports shall be submitted in accordance with General Term and Condition A.1.c of this permit.
  9. This emissions unit is subject to the applicable provisions of 40 CFR Part 60, Subpart GG of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency.

The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

Pursuant to 40 CFR Part 60.7, the permittee is hereby advised of the requirement to report the following at the appropriate times:

- a. construction date (no later than 30 days after such date);
- b. actual startup date (within 15 days after such date); and

- c. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency  
DAPC - Permit Management Unit  
P. O. Box 163669  
Columbus, Ohio 43216-3669

and

Ohio Environmental Protection Agency  
Northwest District Office  
Division of Air Pollution Control  
347 North Dunbridge Road  
Bowling Green, Ohio 43402

## **V. Testing Requirements/Compliance Methods Determinations**

1. 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 within 60 days after achieving full load, but not later than 180 days after initial startup of this emissions unit.
  - b. The emission testing shall be conducted to demonstrate compliance with the NO<sub>x</sub> outlet concentrations, and the mass emission limitations for NO<sub>x</sub>, CO, VOC, and PE, while firing both natural gas and #2 oil/distillate oil. Emission testing shall be conducted to demonstrate compliance with the mass emission limitation for formaldehyde while firing natural gas.
  - c. The following test method(s) shall be employed to demonstrate compliance with the above emission limitations: for NO<sub>x</sub>, Method 20 of 40 CFR Part 60, Appendix A; for PE, Method 5 of 40 CFR Part 60, Appendix A; for formaldehyde, SW-846 Method 0011; for VOC Method 25 of 40 CFR Part 60, Appendix A; SO<sub>2</sub> Method 6 of 40 CFR Part 60, Appendix A; and for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA, NWDO.
  - d. The testing shall be performed at full load, as defined in A.I.2.g, unless otherwise specified or approved by the Ohio EPA, NWDO.
  - e. Not later than 45 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, NWDO. 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 tests, and the person(s) who will be

conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA, NWDO refusal to accept the results of the emission tests.

- f. Personnel from the Ohio EPA, NWDO shall be permitted to witness the tests, 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.
  - g. A comprehensive written report on the results of the emission tests shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, NWDO within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, NWDO.
  - h. In lieu of the test methods and procedures required under 40 CFR Part 60.335, the permittee shall follow the testing requirements specified in this permit.
2. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:
- a. Emission Limitations  
when firing natural gas:  
65.0 lbs of NO<sub>x</sub>/hr  
9 ppmvd of NO<sub>x</sub> at 15% oxygen (at full load, as a 1-hr average)  
  
when firing #2 oil/distillate oil:  
347.0 lbs of NO<sub>x</sub>/hr  
42 ppmvd of NO<sub>x</sub> at 15% oxygen (at full load, as a 1-hr average)  
  
Applicable Compliance Method  
Initial compliance with the allowable mass emission limitations and outlet concentrations shall be demonstrated by the emission testing as described in condition A.V.1, with the continued compliance demonstrated by the unbiased actual continuous emission monitoring data obtained per the requirements described in conditions A.III.5 and A.III.6.
  - b. Emission Limitations  
when firing natural gas:  
21.3 lbs of PE/hr  
12.0 lbs of SO<sub>2</sub>/hr  
3.2 lbs of VOC/hr  
32.0 lbs of CO/hr

when firing #2 oil/distillate oil:  
37.0 lbs of PE/hr  
107.0 lbs of SO<sub>2</sub>/hr  
8.0 lbs of VOC/hr  
72.0 lbs of CO/hr

Applicable Compliance Method

Compliance with the hourly mass emission limitations shall be demonstrated by the emission testing as described in condition A.V.1.

In lieu of conducting SO<sub>2</sub> emission tests, the permittee may determine the applicable SO<sub>2</sub> emission rate by monitoring the fuel flow to the emissions unit in accordance with condition A.III.3 and sampling the sulfur content of the fuel in accordance with condition A.III.4. If required, the permittee shall demonstrate compliance with the applicable SO<sub>2</sub> emission limitations through emission tests performed in accordance with condition A.V.1.c.

c. Emission Limitations

when firing natural gas:  
1.3 lbs of formaldehyde/hr

when firing #2 oil/distillate oil:  
0.5 lb of formaldehyde/hr

Applicable Compliance Method

Compliance with the hourly mass emission limitation when firing natural gas shall be demonstrated by the emission testing as described in condition A.V.1. Compliance with the hourly mass emission limitation when firing #2 oil/distillate oil may be demonstrated by the multiplying the AP-42 emission factor of .00028 lb of formaldehyde/mmBtu (Section 3.1, Table 3.1-4, 4/00) by the emissions unit's maximum heat input (1946.3 mmBtu/hr). If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with condition A.V.1.

d. Emission Limitation

Visible particulate emissions, when firing natural gas, shall not exceed 10% opacity as a 6-minute average.

Applicable Compliance Method

Compliance with this emission limitation shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

e. Emission Limitation

Visible particulate emissions, when firing #2 oil/distillate oil, shall not exceed 20% opacity as a 6-minute average.

Applicable Compliance Method

Compliance with this emission limitation shall be determined through visible emissions observations performed in accordance with the procedures specified in OAC rule 3745-17-03(B)(1).

f. Emission Limitations

startup and shutdown emissions:

140.2 tons of CO/yr

20.4 tons of NO<sub>x</sub>/yr

11.0 tons of VOC/yr

Applicable Compliance Method

Compliance with the annual emission limitations shall be determined by the record keeping required in condition A.III.1.

g. Emission Limitations

74.9 tons of SO<sub>2</sub> per rolling, 12-month period

242.3 tons of CO per rolling, 12-month period

243.0 tons of NO<sub>x</sub> per rolling, 12-month period

79.6 tons of PE per rolling, 12-month period

21.2 tons of VOC per rolling, 12-month period

4.9 tons of formaldehyde per rolling, 12-month period

Applicable Compliance Method

Compliance with the rolling, 12-month emission limitations shall be determined by the record keeping required in condition A.III.1.

**VI. Miscellaneous Requirements**

1. Should this emissions unit be converted from a simple cycle to a combined cycle turbine in the future, a new BAT determination would be required.

**B. State Only Enforceable Section**

**I. Applicable Emission 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 emission 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 Emission Limitations/Control Measures</u>
P001 - GE 7FA simple cycle combustion turbine, 167 MW (nominal)	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

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

**A. State and Federally Enforceable Section**

**I. Applicable Emission 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 emission 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 Emission Limitations/Control Measures</u>
P002 - GE 7FA simple cycle combustion turbine, 167 MW (nominal)	OAC rule 3745-31-05(A)(3)	Best Available Technology (BAT) Requirements  See A.I.2.a below - BAT control requirements.  See A.I.2.e below - other rules included as part of BAT.  <u>BAT emission limitations:</u>  when firing natural gas, during non-startup and shutdown operations, emissions shall not exceed:  9 ppmvd of nitrogen oxides (NO <sub>x</sub> ) at 15% oxygen, (at full load, as a 1-hr average)  65.0 lbs of NO <sub>x</sub> /hr  12.0 lbs of sulfur dioxide (SO <sub>2</sub> )/hr  32.0 lbs of carbon monoxide (CO)/hr  3.2 lbs of volatile organic compounds (VOC)/hr  21.3 lbs of particulate emissions (PE)/hr  1.3 lbs of formaldehyde/hr

OAC rule 3745-31-05(D)

Visible particulate emissions shall not exceed 10% opacity as a 6-minute average, when firing natural gas.

when firing #2 oil/distillate oil, during non-startup and shutdown operations, emissions shall not exceed:

42 ppmvd of NO<sub>x</sub> at 15% oxygen (at full load, as a 1-hr average)

347.0 lbs of NO<sub>x</sub>/hr

107.0 lbs of SO<sub>2</sub>/hr

72.0 lbs of CO/hr

8.0 lbs of VOC/hr

37.0 lbs of PE/hr

0.5 lb of formaldehyde/hr

startup and shutdown emissions from emissions units P001, P002, and P003, combined, shall not exceed the following limitations: 140.2 tons of CO/yr, 22.0 tons of NO<sub>x</sub>/yr, and 11.0 tons of VOC/yr (see A.I.2.f)

Special Terms and Conditions

See A.II.1 below - operational restrictions.

emissions from emissions units P001, P002, and P003, combined, shall not exceed the following limitations per rolling, 12-month period: 74.9 tons of SO<sub>2</sub>, 242.3 tons of CO, 243.0 tons of NO<sub>x</sub>, 79.6 tons of PE, 4.9 tons of formaldehyde, and 21.2 tons of VOC

OAC rule 3745-17-07(A)	Other Applicable Rules
	When firing #2 oil/distillate oil, visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as specified by rule.
40 CFR Part 60, Subpart GG	See A.I.2.c below.
OAC rule 3745-18-06(F)	See A.I.2.b below.
OAC rule 3745-17-11(B)(4)	See A.I.2.b below.
OAC Chapter 3745-103	See A.I.2.d below.
40 CFR Parts 72 and 75	See A.I.2.d below.

## 2. Additional Terms and Conditions

- 2.a** The permittee shall install, operate and maintain dry low NOx burners and a water injection system on this emissions unit.
- 2.b** The emission limitation based on this applicable rule is less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
- 2.c** The emission limitation and sulfur content restriction specified in this applicable rule are less stringent than the emission limitation and sulfur content restriction established pursuant to OAC rule 3745-31-05(A)(3). Except as provided for in the terms and conditions in this permit, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60, Subpart GG.
- 2.d** If the permittee is subject to the requirements of 40 CFR Parts 72 and 75 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.
- 2.e** The requirements of OAC rule 3745-31-05(A)(3) also include compliance with OAC rule 3745-31-05(D), and when firing #2 oil/distillate oil, OAC rule 3745-17-07(A).
- 2.f** The annual emission limitations for startup and shutdown emissions apply for both the firing of natural gas and #2 oil/distillate oil.
- 2.g** "Full load" shall be defined as the electrical output at the maximum achievable fuel flow rate to the emissions unit for the ambient and equipment conditions during any operating

hour. Any actual electrical output within 10% of the calculated electrical output shall be considered full load.

**2.h** "Startup/shutdown operation" or "startup and shutdown operation" occurs when the emissions unit is running at less than 50% of the electric output at full load.

## II. Operational Restrictions

1. The maximum annual hours of operation for emissions units P001, P002, and P003, combined, shall not exceed any of the following:
  - a. 7477 hours per rolling, 12-month period when firing natural gas;
  - b. 1400 hours per rolling, 12-month period when firing #2 oil/distillate oil; and
  - c. 7477 cumulative hours of operation per rolling, 12-month period for the firing of natural gas and #2 oil/distillate oil, where:

1 hour of operation firing natural gas = 1.0 hour of operation; and  
1 hour of operation firing #2 oil/distillate oil = 5.34 hours of operation.

To ensure enforceability during the first 12 calendar months of operation following the initial startup of emissions unit P001, P002, or P003, the permittee shall not exceed the cumulative hourly operational restrictions specified in the following table:

Month	Cumulative hours of firing natural gas & #2 oil/distillate oil
1	1800
1-2	3600
1-3	5400
1-4	7200
1-12	7477

After the first 12 calendar months of operation, compliance with the cumulative annual hourly operational restriction shall be based upon a rolling, 12-month summation of the cumulative hourly operating data. Startup and shutdown periods are to be included in these cumulative hourly operational restrictions.

2. With the exception of startup and shutdown periods, emissions unit P002 shall be operated at a minimum of 50% of full load. The permittee may petition the Ohio EPA, Northwest District Office (NWDO) to operate at a greater load range if it can demonstrate to the Agency's

satisfaction that the emissions unit will comply with all applicable emission limitations in this permit, and the modeling requirements specified in Engineering Guide no. 69.

3. The permittee shall fire only natural gas and #2 oil/distillate oil in this emissions unit.
4. The maximum sulfur content of the natural gas shall not exceed 0.007%, by weight. The maximum sulfur content of the #2 oil/distillate oil shall not exceed 0.05%, by weight.
5. The permittee shall be limited to 550 startups and 550 shutdowns for emissions units P001, P002, and P003, combined, per rolling, 12-month period.

### **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall maintain monthly records of the following information for emissions units P001, P002, and P003, combined:
  - a. the number of hours of operation when firing natural gas;
  - b. the number of hours of operation when firing #2 oil/distillate oil;
  - c. during the first 12 calendar months of operation, the cumulative hours of operation when firing natural gas and #2 oil/distillate oil;
  - d. after the first 12 calendar months of operation, the rolling, 12-month summations of the hours of operation when firing natural gas, when firing #2 oil/distillate oil, and the cumulative hours of operation when firing natural gas and #2 oil/distillate oil;
  - e. the number of startups and shutdowns;
  - f. the duration of each startup and shutdown;
  - g. the startup and shutdown emissions\* for NO<sub>x</sub>, VOC, and CO, in tons;
  - h. the emission rates\* for PE, NO<sub>x</sub>, SO<sub>2</sub>, CO, VOC, and formaldehyde, in tons;
  - i. during the first 12 calendar months of operation, the cumulative emission rates for PE, NO<sub>x</sub>, SO<sub>2</sub>, CO, VOC, and formaldehyde (including startup and shutdown emissions for NO<sub>x</sub>, CO, and VOC), in tons; and
  - j. after the first 12 calendar months of operation, the rolling, 12-month summations of the emission rates for PE, NO<sub>x</sub>, SO<sub>2</sub>, CO, VOC, and formaldehyde (including startup and shutdown emissions for NO<sub>x</sub>, CO, and VOC), in tons.

\* The permittee shall use the continuous NO<sub>x</sub> emission monitoring data to determine the NO<sub>x</sub> emissions for these emissions units. During any period when the continuous NO<sub>x</sub> emission monitoring systems are not operational, the permittee shall use the appropriate missing data procedures specified in 40 CFR Part 75 to determine the NO<sub>x</sub> emissions. The

permittee shall use the most recent emission test data to determine the PE, CO, VOC, and formaldehyde emissions for these emissions units. The permittee shall use the most recent emission test data or the fuel flow and fuel sulfur content data to determine the SO<sub>2</sub> emissions for these emissions units. The following permittee-supplied emission factors may be used to determine the CO and VOC emissions during each emissions unit startup and shutdown: for natural gas (#2 oil/distillate oil) startups; 360.0 (220.0) lbs of CO/hr and 20.0 (20.0) lbs of VOC/hr, and for shutdowns; 150(120) lbs of CO/hr and 20.0(20.0) lbs of VOC/hr.

2. For each day during which the permittee fires a fuel other than natural gas or #2 oil/distillate oil, the permittee shall maintain a record of the type and quantity of fuel fired in this emissions unit.
3. The permittee shall install, operate and maintain equipment to continuously monitor and record the fuel flow to this emissions unit when the emissions unit is in operation. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 75. If the fuel flow monitoring and/or recording equipment is (are) not in service when the emissions unit is in operation, the permittee shall comply with the appropriate missing data procedures specified in 40 CFR Part 75.
4. Except as provided below, the permittee shall comply with the fuel monitoring and testing provisions specified in 40 CFR Part 60.334(b) and 40 CFR Part 60.335(d). In lieu of complying with the aforementioned fuel sulfur content monitoring and testing provisions, the permittee may elect to comply with the applicable monitoring and testing requirements specified in 40 CFR Part 75, Appendix D, Sections 2.2 and 2.3 for fuel oil and natural gas, respectively.

Where applicable, the permittee shall maintain records of the sulfur contents and heating values of the fuels fired in this emissions unit. ASTM D2880, D129, D1552, D2622, or D4294 shall be used to determine the sulfur content of the fuel oil and ASTM D1072, D3031, D4084, D4468, D5504, or D3246 shall be used to determine the sulfur content of the natural gas. ASTM D240 shall be used to determine the heat value of the fuel oil and ASTM D1826, D3588, or D4891 shall be used to determine the heat value of the natural gas. The most recent revisions to the applicable test method shall be used for these analyses. Alternative, equivalent methods may be used upon written approval by the Ohio EPA, NWDO.

5. Continuous NO<sub>x</sub> Emission Monitoring
  - a. Prior to the installation of the continuous NO<sub>x</sub> monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 for approval by the Ohio EPA, Central Office.
  - b. Within 60 days after achieving full load, but not later than 180 days after the initial startup of this emissions unit, the permittee shall conduct certification tests of such equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2, and/or 40 CFR Part 75, unless an extension is granted by the Ohio EPA. Personnel from the Ohio EPA, NWDO shall be notified 30 days prior to initiation of the

applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the Ohio EPA, NWDO within 30 days after the test is completed. Copies of the test results shall be sent to the Ohio EPA, NWDO. Certification of the continuous NO<sub>x</sub> monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2 and/or 40 CFR Part 75.

- c. The permittee shall install, operate and maintain, equipment to continuously monitor and record NO<sub>x</sub> from this emissions unit in units of the applicable standards. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.
  - d. The permittee shall maintain records of the following data obtained by the continuous NO<sub>x</sub> monitoring system: ppmvd NO<sub>x</sub> at 15% oxygen, at full load (hourly average), lbs of NO<sub>x</sub>/hr, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.
  - e. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous NO<sub>x</sub> monitoring system designed to ensure continuous valid and representative readings of NO<sub>x</sub> emissions in units of the applicable standards. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and/or 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO<sub>x</sub> monitoring system must be kept on site and available for inspection during regular office hours.
6. In lieu of installing an oxygen monitor as part of the NO<sub>x</sub> monitoring system, which is used to demonstrate compliance with the full load (as defined in A.I.2.g) NO<sub>x</sub> emission limitations (9ppmvd at 15% oxygen as a 1-hr average when firing natural gas and 42ppmvd at 15% oxygen as a 1-hr average when firing #2 oil/distillate oil), the permittee made a request to install a carbon dioxide monitor and agreed to demonstrate, through U.S. EPA-approved emission tests, that the NO<sub>x</sub> monitoring system (nitrogen oxides analyzer and carbon dioxide monitor) would provide accurate data in the units of the applicable standards. The permittee installed the carbon dioxide monitor, and on July 23, 2002, the permittee successfully completed the monitoring system accuracy demonstration.
  7. The installation and operation of systems to continuously monitor and record emissions of NO<sub>x</sub> and the carbon dioxide content of the exhaust gasses may be performed in lieu of continuously monitoring the ratio of water to fuel fired in the turbine and monitoring the nitrogen content of the fuel being fired in the turbine, as required by 40 CFR Part 60.334.

8. The permittee shall maintain records that document the following:
  - a. the calculated full load for each operating hour;
  - b. the emissions unit's actual electrical output for each operating hour;
  - c. all periods of time when the emissions unit's actual electrical output was within 10% of the calculated full load; and
  - d. all periods of time when the emissions unit was operated at less than 50% of full load.

#### **IV. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify each day when a fuel other than natural gas or #2 oil/distillate oil was burned in this emissions unit.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month hours of operation limitations and, for the first 12 calendar months of operation, all exceedances of the maximum allowable hours of operation.
3. The permittee shall submit quarterly reports that identify each period during which an exemption for ice-fog provided in 40 CFR Part 60.332(f) is in effect. The report shall include the ambient conditions existing during the period, the date and time the air pollution control system was deactivated, and the date and time when the air pollution control system was reactivated.
4. The permittee shall submit quarterly deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.007%, by weight, or the sulfur content of the #2 oil/distillate oil exceed 0.05%, by weight.
5. Continuous NO<sub>x</sub> Emission Reporting
  - a. Pursuant to OAC rule 3745-15-04, ORC sections 3704.03(I) and 3704.031, and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, NWDO documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO<sub>x</sub> values in excess of the applicable emission limitations specified in the terms and conditions of this permit (65.0 lbs/hr and 9 ppmvd at 15% oxygen (at full load (as defined in A.I.2.g), as a 1-hr average) when firing natural gas and 347.0 lbs/hr and 42 ppmvd at 15% oxygen (at full load (as defined in A.I.2.g), as a 1-hr average) when firing #2 oil/distillate oil). These reports shall also contain the total NO<sub>x</sub> emissions for the calendar quarter (in tons).
  - b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, NWDO documenting any continuous NO<sub>x</sub> monitoring system downtime while the emissions unit was on line (date, time, duration, and reason) along

with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

- c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.
  - d. Pursuant to OAC rule 3745-15-04, and ORC sections 3704.03(I) and 3704.031, the permittee shall submit a summary of the excess emission report pursuant to 40 CFR Part 60.7. The summary shall be submitted to the Ohio EPA, NWDO within 30 days following the end of each calendar quarter in a manner prescribed by the Director.
- 6. The permittee shall submit quarterly deviation (excursion) reports that identify each time when this emissions unit was not in compliance with the emissions unit operating load requirements of condition A.II.2. above.
  - 7. In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess and emissions reports for emissions unit P002 in accordance with this permit.
  - 8. The quarterly deviation (excursion) reports shall be submitted in accordance with General Term and Condition A.1.c of this permit.
  - 9. This emissions unit is subject to the applicable provisions of 40 CFR Part 60, Subpart GG of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency.

The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

Pursuant to 40 CFR Part 60.7, the permittee is hereby advised of the requirement to report the following at the appropriate times:

- a. construction date (no later than 30 days after such date);
- b. actual startup date (within 15 days after such date); and
- c. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency  
DAPC - Permit Management Unit  
P. O. Box 163669  
Columbus, Ohio 43216-3669

and

Ohio Environmental Protection Agency  
Northwest District Office  
Division of Air Pollution Control  
347 North Dunbridge Road  
Bowling Green, Ohio 43402

## **V. Testing Requirements/Compliance Methods Determinations**

1. 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 within 60 days after achieving full load, but not later than 180 days after initial startup of this emissions unit.
  - b. The emission testing shall be conducted to demonstrate compliance with the NO<sub>x</sub> outlet concentrations, and the mass emission limitations for NO<sub>x</sub>, CO, VOC, and PE, while firing both natural gas and #2 oil/distillate oil. Emission testing shall be conducted to demonstrate compliance with the mass emission limitation for formaldehyde while firing natural gas.
  - c. The following test method(s) shall be employed to demonstrate compliance with the above emission limitations: for NO<sub>x</sub>, Method 20 of 40 CFR Part 60, Appendix A; for PE, Method 5 of 40 CFR Part 60, Appendix A; for formaldehyde, SW-846 Method 0011; for VOC Method 25 of 40 CFR Part 60, Appendix A; SO<sub>2</sub> Method 6 of 40 CFR Part 60, Appendix A; and for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.
  - d. The testing shall be performed at full load, as defined in A.I.2.g, unless otherwise specified or approved by the Ohio EPA, NWDO.
  - e. Not later than 45 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, NWDO. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA, NWDO refusal to accept the results of the emission tests.

- f. Personnel from the Ohio EPA, NWDO shall be permitted to witness the tests, 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.
  - g. A comprehensive written report on the results of the emission tests shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, NWDO within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, NWDO.
  - h. In lieu of the test methods and procedures required under 40 CFR Part 60.335, the permittee shall follow the testing requirements specified in this permit.
2. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitations

when firing natural gas:

65.0 lbs of NO<sub>x</sub>/hr

9 ppmvd of NO<sub>x</sub> at 15% oxygen (at full load, as a 1-hr average)

when firing #2 oil/distillate oil:

347.0 lbs of NO<sub>x</sub>/hr

42 ppmvd of NO<sub>x</sub> at 15% oxygen (at full load, as a 1-hr average)

Applicable Compliance Method

Initial compliance with the allowable mass emission limitations and outlet concentrations shall be demonstrated by the emission testing as described in condition A.V.1, with the continued compliance demonstrated by the unbiased actual continuous emission monitoring data obtained per the requirements described in conditions A.III.5 and A.III.6.

b. Emission Limitations

when firing natural gas:

21.3 lbs of PE/hr

12.0 lbs of SO<sub>2</sub>/hr

3.2 lbs of VOC/hr

32.0 lbs of CO/hr

when firing #2 oil/distillate oil:  
37.0 lbs of PE/hr  
107.0 lbs of SO<sub>2</sub>/hr  
8.0 lbs of VOC/hr  
72.0 lbs of CO/hr

Applicable Compliance Method

Compliance with the hourly mass emission limitations shall be demonstrated by the emission testing as described in condition A.V.1.

In lieu of conducting SO<sub>2</sub> emission tests, the permittee may determine the applicable SO<sub>2</sub> emission rate by monitoring the fuel flow to the emissions unit in accordance with condition A.III.3 and sampling the sulfur content of the fuel in accordance with condition A.III.4. If required, the permittee shall demonstrate compliance with the applicable SO<sub>2</sub> emission limitations through emission tests performed in accordance with condition A.V.1.c.

c. Emission Limitations

when firing natural gas:  
1.3 lbs of formaldehyde/hr

when firing #2 oil/distillate oil:  
0.5 lb of formaldehyde/hr

Applicable Compliance Method

Compliance with the hourly mass emission limitation when firing natural gas shall be demonstrated by the emission testing as described in condition A.V.1. Compliance with the hourly mass emission limitation when firing #2 oil/distillate oil may be demonstrated by the multiplying the AP-42 emission factor of .00028 lb of formaldehyde/MMBtu (Section 3.1, Table 3.1-4, 4/00) by the emissions unit's maximum heat input (1946.3 MMBtu/hr). If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with condition A.V.1.

d. Emission Limitation

Visible particulate emissions, when firing natural gas, shall not exceed 10% opacity as a 6-minute average.

Applicable Compliance Method

Compliance with this emission limitation shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

e. Emission Limitation

Visible particulate emissions, when firing #2 oil/distillate oil, shall not exceed 20% opacity as a 6-minute average.

Applicable Compliance Method

Compliance with this emission limitation shall be determined through visible emissions observations performed in accordance with the procedures specified in OAC rule 3745-17-03(B)(1).

f. Emission Limitations

startup and shutdown emissions:

140.2 tons of CO/yr

20.4 tons of NO<sub>x</sub>/yr

11.0 tons of VOC/yr

Applicable Compliance Method

Compliance with the annual emission limitations shall be determined by the record keeping required in condition A.III.1.

g. Emission Limitations

74.9 tons of SO<sub>2</sub> per rolling, 12-month period

242.3 tons of CO per rolling, 12-month period

243.0 tons of NO<sub>x</sub> per rolling, 12-month period

79.6 tons of PE per rolling, 12-month period

21.2 tons of VOC per rolling, 12-month period

4.9 tons of formaldehyde per rolling, 12-month period

Applicable Compliance Method

Compliance with the rolling, 12-month emission limitations shall be determined by the record keeping required in condition A.III.1.

## VI. Miscellaneous Requirements

1. Should this emissions unit be converted from a simple cycle to a combined cycle turbine in the future, a new BAT determination would be required.

**B. State Only Enforceable Section**

**I. Applicable Emission 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 emission 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 Emission Limitations/Control Measures</u>
P002 - GE 7FA simple cycle combustion turbine, 167 MW (nominal)	none	none

2. **Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

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

**A. State and Federally Enforceable Section**

**I. Applicable Emission 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 emission 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 Emission Limitations/Control Measures</u>
P003 - GE 7FA simple cycle combustion turbine, 167 MW (nominal)	OAC rule 3745-31-05(A)(3)	Best Available Technology (BAT) Requirements  See A.I.2.a below - BAT control requirements.  See A.I.2.e below - other rules included as part of BAT.  <u>BAT emission limitations:</u>  when firing natural gas, during non-startup and shutdown operations, emissions shall not exceed:  9 ppmvd of nitrogen oxides (NO <sub>x</sub> ) at 15% oxygen, (at full load, as a 1-hr average)  65.0 lbs of NO <sub>x</sub> /hr  12.0 lbs of sulfur dioxide (SO <sub>2</sub> )/hr  32.0 lbs of carbon monoxide (CO)/hr  3.2 lbs of volatile organic compounds (VOC)/hr  21.3 lbs of particulate emissions (PE)/hr  1.3 lbs of formaldehyde/hr

OAC rule 3745-31-05(D)

Visible particulate emissions shall not exceed 10% opacity as a 6-minute average, when firing natural gas.

when firing #2 oil/distillate oil, during non-startup and shutdown operations, emissions shall not exceed:

42 ppmvd of NO<sub>x</sub> at 15% oxygen (at full load, as a 1-hr average)

347.0 lbs of NO<sub>x</sub>/hr

107.0 lbs of SO<sub>2</sub>/hr

72.0 lbs of CO/hr

8.0 lbs of VOC/hr

37.0 lbs of PE/hr

0.5 lb of formaldehyde/hr

startup and shutdown emissions from emissions units P001, P002, and P003, combined, shall not exceed the following limitations: 140.2 tons of CO/yr, 22.0 tons of NO<sub>x</sub>/yr, and 11.0 tons of VOC/yr (see A.I.2.f)

Special Terms and Conditions

See A.II.1 below - operational restrictions.

emissions from emissions units P001, P002, and P003, combined, shall not exceed the following limitations per rolling, 12-month period: 74.9 tons of SO<sub>2</sub>, 242.3 tons of CO, 243.0 tons of NO<sub>x</sub>, 79.6 tons of PE, 4.9 tons of formaldehyde, and 21.2 tons of VOC

	Other Applicable Rules
OAC rule 3745-17-07(A)	When firing #2 oil/distillate oil, visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as specified by rule.
40 CFR Part 60, Subpart GG	See A.I.2.c below.
OAC rule 3745-18-06(F)	See A.I.2.b below.
OAC rule 3745-17-11(B)(4)	See A.I.2.b below.
OAC Chapter 3745-103	See A.I.2.d below.
40 CFR Parts 72 and 75	See A.I.2.d below.

## 2. Additional Terms and Conditions

- 2.a** The permittee shall install, operate and maintain dry low NOx burners and a water injection system on this emissions unit.
- 2.b** The emission limitation based on this applicable rule is less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
- 2.c** The emission limitation and sulfur content restriction specified in this applicable rule are less stringent than the emission limitation and sulfur content restriction established pursuant to OAC rule 3745-31-05(A)(3). Except as provided for in the terms and conditions in this permit, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60, Subpart GG.
- 2.d** If the permittee is subject to the requirements of 40 CFR Parts 72 and 75 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.
- 2.e** The requirements of OAC rule 3745-31-05(A)(3) also include compliance with OAC rule 3745-31-05(D), and when firing #2 oil/distillate oil, OAC rule 3745-17-07(A).
- 2.f** The annual emission limitations for startup and shutdown emissions apply for both the firing of natural gas and #2 oil/distillate oil.
- 2.g** "Full load" shall be defined as the electrical output at the maximum achievable fuel flow rate to the emissions unit for the ambient and equipment conditions during any operating

hour. Any actual electrical output within 10% of the calculated electrical output shall be considered full load.

- 2.h** "Startup/shutdown operation" or "startup and shutdown operation" occurs when the emissions unit is running at less than 50% of the electric output at full load.

## II. Operational Restrictions

1. The maximum annual hours of operation for emissions units P001, P002, and P003, combined, shall not exceed any of the following:
  - a. 7477 hours per rolling, 12-month period when firing natural gas;
  - b. 1400 hours per rolling, 12-month period when firing #2 oil/distillate oil; and
  - c. 7477 cumulative hours of operation per rolling, 12-month period for the firing of natural gas and #2 oil/distillate oil, where:

1hour of operation firing natural gas = 1.0 hour of operation; and  
1hour of operation firing #2 oil/distillate oil = 5.34 hours of operation.

To ensure enforceability during the first 12 calendar months of operation following the initial startup of emissions unit P001, P002, or P003, the permittee shall not exceed the cumulative hourly operational restrictions specified in the following table:

Month	Cumulative hours of firing natural gas& #2 oil/distillate oil
1	1800
1-2	3600
1-3	5400
1-4	7200
1-12	7477

After the first 12 calendar months of operation, compliance with the cumulative annual hourly operational restriction shall be based upon a rolling, 12-month summation of the cumulative hourly operating data. Startup and shutdown periods are to be included in these cumulative hourly operational restrictions.

2. With the exception of startup and shutdown periods, emissions unit P003 shall be operated at a minimum of 50% of full load. The permittee may petition the Ohio EPA, Northwest District Office (NWDO) to operate at a greater load range if it can demonstrate to the Agency's

satisfaction that the emissions unit will comply with all applicable emission limitations in this permit, and the modeling requirements specified in Engineering Guide no. 69.

3. The permittee shall fire only natural gas and #2 oil/distillate oil in this emissions unit.
4. The maximum sulfur content of the natural gas shall not exceed 0.007%, by weight. The maximum sulfur content of the #2 oil/distillate oil shall not exceed 0.05%, by weight.
5. The permittee shall be limited to 550 startups and 550 shutdowns for emissions units P001, P002, and P003, combined, per rolling, 12-month period.

### **III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall maintain monthly records of the following information for emissions units P001, P002, and P003, combined:
  - a. the number of hours of operation when firing natural gas;
  - b. the number of hours of operation when firing #2 oil/distillate oil;
  - c. during the first 12 calendar months of operation, the cumulative hours of operation when firing natural gas and #2 oil/distillate oil;
  - d. after the first 12 calendar months of operation, the rolling, 12-month summations of the hours of operation when firing natural gas, when firing #2 oil/distillate oil, and the cumulative hours of operation when firing natural gas and #2 oil/distillate oil;
  - e. the number of startups and shutdowns;
  - f. the duration of each startup and shutdown;
  - g. the startup and shutdown emissions\* for NO<sub>x</sub>, VOC, and CO, in tons;
  - h. the emission rates\* for PE, NO<sub>x</sub>, SO<sub>2</sub>, CO, VOC, and formaldehyde, in tons;
  - i. during the first 12 calendar months of operation, the cumulative emission rates for PE, NO<sub>x</sub>, SO<sub>2</sub>, CO, VOC, and formaldehyde (including startup and shutdown emissions for NO<sub>x</sub>, CO, and VOC), in tons; and
  - j. after the first 12 calendar months of operation, the rolling, 12-month summations of the emission rates for PE, NO<sub>x</sub>, SO<sub>2</sub>, CO, VOC, and formaldehyde (including startup and shutdown emissions for NO<sub>x</sub>, CO, and VOC), in tons.

\* The permittee shall use the continuous NO<sub>x</sub> emission monitoring data to determine the NO<sub>x</sub> emissions for these emissions units. During any period when the continuous NO<sub>x</sub> emission monitoring systems are not operational, the permittee shall use the appropriate missing data procedures specified in 40 CFR Part 75 to determine the NO<sub>x</sub> emissions. The

permittee shall use the most recent emission test data to determine the PE, CO, VOC, and formaldehyde emissions for these emissions units. The permittee shall use the most recent emission test data or the fuel flow and fuel sulfur content data to determine the SO<sub>2</sub> emissions for these emissions units. The following permittee-supplied emission factors may be used to determine the CO and VOC emissions during each emissions unit startup and shutdown: for natural gas (#2 oil/distillate oil) startups; 360.0 (220.0) lbs of CO/hr and 20.0 (20.0) lbs of VOC/hr, and for shutdowns; 150(120) lbs of CO/hr and 20.0(20.0) lbs of VOC/hr.

2. For each day during which the permittee fires a fuel other than natural gas or #2 oil/distillate oil, the permittee shall maintain a record of the type and quantity of fuel fired in this emissions unit.
3. The permittee shall install, operate and maintain equipment to continuously monitor and record the fuel flow to this emissions unit when the emissions unit is in operation. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 75. If the fuel flow monitoring and/or recording equipment is (are) not in service when the emissions unit is in operation, the permittee shall comply with the appropriate missing data procedures specified in 40 CFR Part 75.
4. Except as provided below, the permittee shall comply with the fuel monitoring and testing provisions specified in 40 CFR Part 60.334(b) and 40 CFR Part 60.335(d). In lieu of complying with the aforementioned fuel sulfur content monitoring and testing provisions, the permittee may elect to comply with the applicable monitoring and testing requirements specified in 40 CFR Part 75, Appendix D, Sections 2.2 and 2.3 for fuel oil and natural gas, respectively.

Where applicable, the permittee shall maintain records of the sulfur contents and heating values of the fuels fired in this emissions unit. ASTM D2880, D129, D1552, D2622, or D4294 shall be used to determine the sulfur content of the fuel oil and ASTM D1072, D3031, D4084, D4468, D5504, or D3246 shall be used to determine the sulfur content of the natural gas. ASTM D240 shall be used to determine the heat value of the fuel oil and ASTM D1826, D3588, or D4891 shall be used to determine the heat value of the natural gas. The most recent revisions to the applicable test method shall be used for these analyses. Alternative, equivalent methods may be used upon written approval by the Ohio EPA, NWDO.

5. Continuous NO<sub>x</sub> Emission Monitoring
  - a. Prior to the installation of the continuous NO<sub>x</sub> monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 for approval by the Ohio EPA, Central Office.
  - b. Within 60 days after achieving full load, but not later than 180 days after the initial startup of this emissions unit, the permittee shall conduct certification tests of such equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2, and/or 40 CFR Part 75, unless an extension is granted by the Ohio EPA. Personnel from the Ohio EPA, NWDO shall be notified 30 days prior to initiation of the

applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the Ohio EPA, NWDO within 30 days after the test is completed. Copies of the test results shall be sent to the Ohio EPA, NWDO. Certification of the continuous NO<sub>x</sub> monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2 and/or 40 CFR Part 75.

- c. The permittee shall install, operate and maintain, equipment to continuously monitor and record NO<sub>x</sub> from this emissions unit in units of the applicable standards. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.
  - d. The permittee shall maintain records of the following data obtained by the continuous NO<sub>x</sub> monitoring system: ppmvd NO<sub>x</sub> at 15% oxygen, at full load (hourly average), lbs of NO<sub>x</sub>/hr, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.
  - e. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous NO<sub>x</sub> monitoring system designed to ensure continuous valid and representative readings of NO<sub>x</sub> emissions in units of the applicable standards. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and/or 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO<sub>x</sub> monitoring system must be kept on site and available for inspection during regular office hours.
6. In lieu of installing an oxygen monitor as part of the NO<sub>x</sub> monitoring system, which is used to demonstrate compliance with the full load (as defined in A.I.2.g) NO<sub>x</sub> emission limitations (9ppmvd at 15% oxygen as a 1-hr average when firing natural gas and 42ppmvd at 15% oxygen as a 1-hr average when firing #2 oil/distillate oil), the permittee made a request to install a carbon dioxide monitor and agreed to demonstrate, through U.S. EPA-approved emission tests, that the NO<sub>x</sub> monitoring system (nitrogen oxides analyzer and carbon dioxide monitor) would provide accurate data in the units of the applicable standards. The permittee installed the carbon dioxide monitor, and on July 30, 2002, the permittee successfully completed the monitoring system accuracy demonstration.
  7. The installation and operation of systems to continuously monitor and record emissions of NO<sub>x</sub> and the carbon dioxide content of the exhaust gasses may be performed in lieu of continuously monitoring the ratio of water to fuel fired in the turbine and monitoring the nitrogen content of the fuel being fired in the turbine, as required by 40 CFR Part 60.334.

8. The permittee shall maintain records that document the following:
  - a. the calculated full load for each operating hour;
  - b. the emissions unit's actual electrical output for each operating hour;
  - c. all periods of time when the emissions unit's actual electrical output was within 10% of the calculated full load; and
  - d. all periods of time when the emissions unit was operated at less than 50% of full load.

#### **IV. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify each day when a fuel other than natural gas or #2 oil/distillate oil was burned in this emissions unit.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month hours of operation limitations and, for the first 12 calendar months of operation, all exceedances of the maximum allowable hours of operation.
3. The permittee shall submit quarterly reports that identify each period during which an exemption for ice-fog provided in 40 CFR Part 60.332(f) is in effect. The report shall include the ambient conditions existing during the period, the date and time the air pollution control system was deactivated, and the date and time when the air pollution control system was reactivated.
4. The permittee shall submit quarterly deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 0.007%, by weight, or the sulfur content of the #2 oil/distillate oil exceed 0.05%, by weight.
5. Continuous NO<sub>x</sub> Emission Reporting
  - a. Pursuant to OAC rule 3745-15-04, ORC sections 3704.03(I) and 3704.031, and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, NWDO documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO<sub>x</sub> values in excess of the applicable emission limitations specified in the terms and conditions of this permit (65.0 lbs/hr and 9 ppmvd at 15% oxygen (at full load (as defined in A.I.2.g), as a 1-hr average) when firing natural gas and 347.0 lbs/hr and 42 ppmvd at 15% oxygen (at full load (as defined in A.I.2.g), as a 1-hr average) when firing #2 oil/distillate oil). These reports shall also contain the total NO<sub>x</sub> emissions for the calendar quarter (in tons).
  - b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, NWDO documenting any continuous NO<sub>x</sub> monitoring system downtime while the emissions unit was on line (date, time, duration, and reason) along

with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

- c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.
  - d. Pursuant to OAC rule 3745-15-04, and ORC sections 3704.03(I) and 3704.031, the permittee shall submit a summary of the excess emission report pursuant to 40 CFR Part 60.7. The summary shall be submitted to the Ohio EPA, NWDO within 30 days following the end of each calendar quarter in a manner prescribed by the Director.
6. The permittee shall submit quarterly deviation (excursion) reports that identify each time when this emissions unit was not in compliance with the emissions unit operating load requirements of condition A.II.2. above.
  7. In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess and emissions reports for emissions unit P003 in accordance with this permit.
  8. The quarterly deviation (excursion) reports shall be submitted in accordance with General Term and Condition A.1.c of this permit.
  9. This emissions unit is subject to the applicable provisions of 40 CFR Part 60, Subpart GG of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency.

The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

Pursuant to 40 CFR Part 60.7, the permittee is hereby advised of the requirement to report the following at the appropriate times:

- a. construction date (no later than 30 days after such date);
- b. actual startup date (within 15 days after such date); and
- c. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency  
DAPC - Permit Management Unit  
P. O. Box 163669  
Columbus, Ohio 43216-3669

and

Ohio Environmental Protection Agency  
Northwest District Office  
Division of Air Pollution Control  
347 North Dunbridge Road  
Bowling Green, Ohio 43402

## **V. Testing Requirements/Compliance Methods Determinations**

1. 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 within 60 days after achieving full load, but not later than 180 days after initial startup of this emissions unit.
  - b. The emission testing shall be conducted to demonstrate compliance with the NO<sub>x</sub> outlet concentrations, and the mass emission limitations for NO<sub>x</sub>, CO, VOC, and PE, while firing both natural gas and #2 oil/distillate oil. Emission testing shall be conducted to demonstrate compliance with the mass emission limitation for formaldehyde while firing natural gas.
  - c. The following test method(s) shall be employed to demonstrate compliance with the above emission limitations: for NO<sub>x</sub>, Method 20 of 40 CFR Part 60, Appendix A; for PE, Method 5 of 40 CFR Part 60, Appendix A; for formaldehyde, SW-846 Method 0011; for VOC Method 25 of 40 CFR Part 60, Appendix A; SO<sub>2</sub> Method 6 of 40 CFR Part 60, Appendix A; and for CO Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA, NWDO.
  - d. The testing shall be performed at full load, as defined in A.I.2.g, unless otherwise specified or approved by the Ohio EPA, NWDO.
  - e. Not later than 45 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, NWDO. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA, NWDO refusal to accept the results of the emission tests.

- f. Personnel from the Ohio EPA, NWDO shall be permitted to witness the tests, 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.
  - g. A comprehensive written report on the results of the emission tests shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, NWDO within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, NWDO.
  - h. In lieu of the test methods and procedures required under 40 CFR Part 60.335, the permittee shall follow the testing requirements specified in this permit.
2. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitations

when firing natural gas:

65.0 lbs of NO<sub>x</sub>/hr

9 ppmvd of NO<sub>x</sub> at 15% oxygen (at full load, as a 1-hr average)

when firing #2 oil/distillate oil:

347.0 lbs of NO<sub>x</sub>/hr

42 ppmvd of NO<sub>x</sub> at 15% oxygen (at full load, as a 1-hr average)

Applicable Compliance Method

Initial compliance with the allowable mass emission limitations and outlet concentrations shall be demonstrated by the emission testing as described in condition A.V.1, with the continued compliance demonstrated by the unbiased actual continuous emission monitoring data obtained per the requirements described in conditions A.III.5 and A.III.6.

b. Emission Limitations

when firing natural gas:

21.3 lbs of PE/hr

12.0 lbs of SO<sub>2</sub>/hr

3.2 lbs of VOC/hr

32.0 lbs of CO/hr

when firing #2 oil/distillate oil:  
37.0 lbs of PE/hr  
107.0 lbs of SO<sub>2</sub>/hr  
8.0 lbs of VOC/hr  
72.0 lbs of CO/hr

Applicable Compliance Method

Compliance with the hourly mass emission limitations shall be demonstrated by the emission testing as described in condition A.V.1.

In lieu of conducting SO<sub>2</sub> emission tests, the permittee may determine the applicable SO<sub>2</sub> emission rate by monitoring the fuel flow to the emissions unit in accordance with condition A.III.3 and sampling the sulfur content of the fuel in accordance with condition A.III.4. If required, the permittee shall demonstrate compliance with the applicable SO<sub>2</sub> emission limitations through emission tests performed in accordance with condition A.V.1.c.

c. Emission Limitations

when firing natural gas:  
1.3 lbs of formaldehyde/hr

when firing #2 oil/distillate oil:  
0.5 lb of formaldehyde/hr

Applicable Compliance Method

Compliance with the hourly mass emission limitation when firing natural gas shall be demonstrated by the emission testing as described in condition A.V.1. Compliance with the hourly mass emission limitation when firing #2 oil/distillate oil may be demonstrated by the multiplying the AP-42 emission factor of .00028 lb of formaldehyde/MMBtu (Section 3.1, Table 3.1-4, 4/00) by the emissions unit's maximum heat input (1946.3 MMBtu/hr). If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with condition A.V.1.

d. Emission Limitation

Visible particulate emissions, when firing natural gas, shall not exceed 10% opacity as a 6-minute average.

Applicable Compliance Method

Compliance with this emission limitation shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

e. Emission Limitation

Visible particulate emissions, when firing #2 oil/distillate oil, shall not exceed 20% opacity as a 6-minute average.

Applicable Compliance Method

Compliance with this emission limitation shall be determined through visible emissions observations performed in accordance with the procedures specified in OAC rule 3745-17-03(B)(1).

f. Emission Limitations

startup and shutdown emissions:

140.2 tons of CO/yr

20.4 tons of NO<sub>x</sub>/yr

11.0 tons of VOC/yr

Applicable Compliance Method

Compliance with the annual emission limitations shall be determined by the record keeping required in condition A.III.1.

g. Emission Limitations

74.9 tons of SO<sub>2</sub> per rolling, 12-month period

242.3 tons of CO per rolling, 12-month period

243.0 tons of NO<sub>x</sub> per rolling, 12-month period

79.6 tons of PE per rolling, 12-month period

21.2 tons of VOC per rolling, 12-month period

4.9 tons of formaldehyde per rolling, 12-month period

Applicable Compliance Method

Compliance with the rolling, 12-month emission limitations shall be determined by the record keeping required in condition A.III.1.

**VI. Miscellaneous Requirements**

1. Should this emissions unit be converted from a simple cycle to a combined cycle turbine in the future, a new BAT determination would be required.

**B. State Only Enforceable Section**

**I. Applicable Emission 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 emission 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 Emission Limitations/Control Measures</u>
P003 - GE 7FA simple cycle combustion turbine, 167 MW (nominal)	none	none

2. **Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

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

**A. State and Federally Enforceable Section**

**I. Applicable Emission 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 emission 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 Emission Limitations/Control Measures</u>
T001 - 1,120,000-gallon #2 fuel oil fixed roof storage tank	OAC rule 3745-31-05(A)(3)	Use of submerged fill  0.2 ton of VOC/yr  See A.I.2.a below.
	OAC rule 3745-21-09(L)	Exempt, see A.II.1 below.
	40 CFR 60, Subpart Kb	See A.II.1 below.
		Record keeping Requirements (See A.III.1 and A.III.2 below.)

2. **Additional Terms and Conditions**

- 2.a The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subpart Kb.

**II. Operational Restrictions**

1. The permittee shall not place, store, or hold in this fixed roof tank any petroleum liquid which, as stored, has a true vapor pressure greater than or equal to 5.2 kPa (0.75 psia).
2. The annual material throughput for this emissions unit shall not exceed 24,060,000 gallons per year.

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

1. The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.

In accordance with 40 CFR Parts 60.116b(a), (b), (c), and (d), the permittee shall maintain records of the following information:

- a. the types of petroleum liquids stored in the tank;
  - b. the period of storage; and
  - c. the maximum true vapor pressure (in pounds per square inch absolute), during the storage period.
  - d. The permittee shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel (shall be kept for the life of the source).
2. Available data may be used to determine the maximum true vapor pressure, as follows:
- a. For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.
  - b. For crude oil or refined petroleum products, the vapor pressure may be obtained by the following:
    - i. Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference--see 40 CFR Part 60.17), unless the Administrator specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).
    - ii. The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa.
  - c. For other liquids, the vapor pressure:
    - i. may be obtained from standard reference texts; or
    - ii. determined by ASTM Method D2879-83 (incorporated by reference--see 40 CFR Part 60.17); or
    - iii. measured by an appropriate method approved by the Administrator; or

- iv. calculated by an appropriate method approved by the Administrator.
3. The permittee of each vessel storing a waste mixture of indeterminate or variable composition shall be subject to the following requirements.
- a. Prior to the initial filling of the vessel, the highest maximum true vapor pressure for the range of anticipated liquid compositions to be stored will be determined using the methods described in section A.III.3.
  - b. For vessels in which the vapor pressure of the anticipated liquid composition is above the cutoff for monitoring but below the cutoff for controls as defined in 40 CFR Part 60.112b(a), an initial physical test of the vapor pressure is required; and a physical test at least once every 6 months thereafter is required as determined by the following methods:
    - i. ASTM Method D2879-83 (incorporated by reference--see 40 CFR Part 60.17); or
    - ii. ASTM Method D323-82 (incorporated by reference--see 40 CFR Part 60.17); or
    - iii. as measured by an appropriate method as approved by the Administrator.
4. The permittee shall maintain monthly records of the amount (gallons per month and total gallons, to date for the calendar year) of material throughput for this emissions unit.

#### **IV. Reporting Requirements**

- 1. If the permittee places, stores, or holds in the fixed roof tank any petroleum liquid with a true vapor pressure which is equal to or greater than 0.75 pound per square inch absolute (5.2 kPa), the permittee shall notify the Ohio EPA, NWDO within 30 days of becoming aware of the occurrence.
- 2. The permittee shall submit annual deviation (excursion) reports that identify any and all exceedances of the annual material throughput limitation, as well as the corrective actions taken to achieve compliance. These reports shall be submitted by January 31 of each year.

#### **V. Testing Requirements**

- 1. Compliance with the emission limitation in section A.I.1 of these terms and conditions shall be determined in accordance with the following method:
  - a. Emission Limitation:  
0.2 ton of VOC/yr

Applicable Compliance Method:

The emission limitation was established in accordance with U.S. EPA, AP-42 Tanks 4.0 computer program using a maximum annual throughput of 24,060,000 gallons. Compliance shall be determined in accordance with the monitoring and record keeping specified in section A.III.4.

**VI. Miscellaneous Requirements**

None

**B. State Only Enforceable Section**

**I. Applicable Emission 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 Emission Limitations/Control Measures</u>
T001 - 1,120,000-gallon #2 fuel oil fixed roof storage tank	none	none

**2. Additional Terms and Conditions**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None