

Facility ID: 1431070132 Issuance type: Final State Permit To Operate

This version of facility specific terms and conditions was converted from a database format to an HTML file during an upgrade of the Ohio EPA, Division of Air Pollution Control's permitting software. Every attempt has been made to convert the terms and conditions to look and substantively conform to the permit issued or being drafted in STARS. However, the format of the terms may vary slightly from the original. In addition, although it is not expected, there is a slight possibility that a term and condition may have been inadvertently "left out" of this reproduction during the conversion process. Therefore, if this version is to be used as a starting point in drafting a new version of a permit, it is imperative that the entire set of terms and conditions be reviewed to ensure they substantively mimic the issued permit. The official version of any permit issued final by Ohio EPA is kept in the Agency's Legal section. The Legal section may be contacted at (614) 644-3037.

In addition to the terms and conditions, hyperlinks have been inserted into the document so you may more readily access the section of the document you wish to review.

Finally, the term language under "Part II" and before "A. Applicable Emissions Limitations..." has been added to aid in document conversion, and was not part of the original issued permit.

- [Go to Part II for Emissions Unit B004](#)
- [Go to Part II for Emissions Unit B005](#)
- [Go to Part II for Emissions Unit B006](#)

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

Facility ID: 1431070132 Emissions Unit ID: B004 Issuance type: Final State Permit To Operate

[Go to the top of this document](#)

**Part II - Special Terms and Conditions**

This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  - (a) None.

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

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B004-48.2 mmBtu/Hr Natural Gas/No. 2 Oil-Fired Boiler (#1)	OAC rule 3745-31-05(A)(3) (PTI 14-3326)	See terms A.2.a through A.2.c.
	40 CFR Part 60, Subpart Dc	The emission limitation specified by this rule is less stringent than the emission limitations outlined in OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitations outlined in OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-10(B)(1)	When burning #2 fuel oil the emission limitation specified by this rule is the same as the particulate emission (PE) limitation outlined in OAC rule 3745-31-05(A)(3).
	OAC rule 3745-18-06(D)	When burning natural gas the emission limitation specified by this rule is less stringent than the particulate emission (PE) limitation outlined in OAC rule 3745-31-05(A)(3).
	OAC rule 3745-35-07(B)(2)	The emission limitation specified by this rule is the same as the sulfur dioxide (SO2) emission limitation outlined in OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-08(B)	See term A.2.d. See term A.2.e.

**2. Additional Terms and Conditions**

- (a) The following emission limitations shall not be exceeded when burning only natural gas:

Emission Limitation:

PE shall not exceed 0.005 lb/mmBtu of actual heat input.  
 SO2 shall not exceed 0.0006 lb/mmBtu of actual heat input.  
 NOx shall not exceed 0.10 lb/mmBtu of actual heat input.  
 CO shall not exceed 0.16 lb/mmBtu of actual heat input .  
 VOC shall not exceed 0.009 lb/mmBtu of actual heat input.

The following emission limitations shall not be exceeded when burning No. 2 fuel oil:

PE shall not exceed 0.020 lb/mmBtu of actual heat input.  
 SO2 shall not exceed 0.3 lb/mmBtu of actual heat input.  
 NOx shall not exceed 0.17 lb/mmBtu of actual heat input.  
 CO shall not exceed 0.20 lb/mmBtu of actual heat input.  
 VOC shall not exceed 0.0014 lb/mmBtu of actual heat input.  
 Visible particulate emissions from any stack shall not exceed 20% opacity, as a six-minute average, except for a one-minute period of not more than 27% opacity.

The combined total emissions from the burning of natural gas and No. 2 fuel oil in emissions units B004, B005, and B006 shall not exceed the following, based upon a rolling, 365-day period:

Particulate Emissions (PE) shall not exceed 3.83 TPY.  
 Sulfur Dioxide (SO<sub>2</sub>) emissions shall not exceed 15.86 TPY.  
 Nitrogen Oxide (NO<sub>x</sub>) emissions shall not exceed 64.71 TPY.  
 Carbon Monoxide (CO) emissions shall not exceed 99.9 TPY.  
 Volatile Organic Compound (VOC) emissions shall not exceed 5.10 TPY.  
 The permittee shall satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology (BAT) requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 14-3326. The design of the emissions unit and the technology associated with the current operating practices satisfy the BAT requirements.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. This rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Until the U.S. EPA approves the revision to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

**B. Operational Restrictions**

1. This emissions unit shall employ a low NO<sub>x</sub> burner at all times when the unit is in operation.
2. Annual usage of No. 2 fuel oil in this emissions unit shall not exceed 250,000 gallons per year, based upon a rolling, 365-day period.
3. The combined annual usage of natural gas in emissions units B004, B005, and B006 shall not exceed 1086 million cubic feet per year based upon a rolling, 365-day period.
4. The sulfur content of each shipment of No. 2 fuel oil received for burning in this emissions unit shall not exceed 0.3% by weight.

**C. Monitoring and/or Record Keeping Requirements**

1. The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below.
  - a. Alternative 1:

For each shipment of oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

b. Alternative 2:

The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).

The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods, such as ASTM methods D240 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter and D4294, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, or equivalent methods as approved by the director.

2. For each day during which the permittee burns a fuel other than natural gas or No.2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
3. The permittee shall maintain daily records of the following information:
  - a. the combined amount of natural gas (in million cubic feet) burned in emissions unit B004, B005, and B006;
  - b. the rolling, 365-day summation of natural gas (in million cubic feet) burned in emissions unit B004, B005, and B006;
  - c. the total amount of No. 2 fuel oil (in gallons) burned in this emissions unit;
  - d. the rolling, 365-day summation of the No. 2 fuel oil (in gallons) burned in this emissions unit; and
  - e. the rolling, 365-day summation of the total emissions of PE, SO<sub>2</sub>, NO<sub>x</sub>, CO and VOC from emissions units B004, B005, and B006.

**D. Reporting Requirements**

1. The permittee shall notify the director (the appropriate District Office or local air agency) in writing of any record which shows a deviation from the allowable sulfur dioxide emission limitation contained in this permit, based upon the sulfur dioxide emission rates calculated in accordance with the formula specified in OAC rule 3745-18-04(F). The notification shall include a copy of such record and shall be sent to the director (the appropriate

District Office or local air agency) within 30 days after the deviation occurs.

2. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of:
  - a. the rolling, 365-day, natural gas usage limitation for emissions units B004, B005, and B006; and
  - b. the rolling, 365-day, No. 2 fuel oil usage limitation for this emissions unit.

These quarterly reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall cover the oil shipments received during the previous calendar quarters.

3. The permittee shall also submit annual reports which specify the following:
  - a. the total natural gas usage for emissions units B004, B005, and B006;
  - b. the total No. 2 fuel oil usage for this emissions unit; and
  - c. the total emissions of PE, SO<sub>2</sub>, NO<sub>x</sub>, CO and VOC from emissions units B004, B005, and B006.

These annual reports shall be submitted by January 31 of each year.

4. The permittee shall notify the Hamilton County of Environmental Services in writing of any fuel burned in this emissions unit other than natural gas or No. 2 fuel oil. The notification shall include a copy of such record and shall be sent to the Hamilton County of Environmental Services within 30 days after the deviation occurs.

**E. Testing Requirements**

1. Fuel Usage Limitations:

The combined annual usage of natural gas in emissions units B004, B005, and B006 shall not exceed 1086 million cubic feet per year based upon a rolling, 365-day period.

Annual usage of No. 2 fuel oil in this emissions unit shall not exceed 250,000 gallons per year, based upon a rolling, 365-day period.

Applicable Compliance Method:

Compliance with the fuel usage limitations shall be demonstrated by the record keeping requirements outlined in Section C.3.

2. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity, as a six-minute average, except for a one-minute period of not more than 27% opacity.

Applicable Compliance Method:

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

3. Emission Limitations:

PE shall not exceed 0.005 lb/mmBtu of actual heat input when burning natural gas.

PE shall not exceed 0.020 lb/mmBtu of actual heat input when burning No. 2 fuel oil.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the PE emission limitations through emission tests performed in accordance with the Methods 1-5 of 40 CFR Part 60, Appendix A.

4. Emission Limitation:

SO<sub>2</sub> shall not exceed 0.0006 lb/mmBtu of actual heat input when burning natural gas.

Applicable Compliance Method:

Compliance with the lb/mmBtu emission limitation may be determined by the following equation:

$$0.0468 \text{ mmft}^3/\text{hr}(\text{max hourly gas burning capacity of emissions unit}) \times 0.6 \text{ lb of SO}_2/\text{mmft}^3 \text{ (AP-42 emission factor)} / 48.2 \text{ mmBtu/hr} = 0.0006 \text{ lb of SO}_2/\text{mmBtu}.$$

Emission Limitation:

SO<sub>2</sub> shall not exceed 0.3 lb/mmBtu of actual heat input when burning No. 2 fuel oil.

Applicable Compliance Method:

Compliance with the lb/mmBtu emission limitation may be determined by the following equation which is specified in OAC rule 3745-18-04(F)(2):

$$\text{lb/mmBtu} = (1 \times 10^6) / \text{heat content of the liquid fuel in Btu/gallon} \times \text{density of liquid fuel in lbs/gallon} \times \text{the decimal fraction of sulfur in the liquid fuel}.$$

If required, the permittee shall demonstrate compliance with these emission limitations through emission testing performed in accordance with Methods 1-4 and 6 of 40 CFR Part 60, Appendix A.

5. Emission Limitations:
- NOx shall not exceed 0.10 lb/mmBtu of actual heat input when burning natural gas.
- NOx shall not exceed 0.17 lb/mmBtu of actual heat input when burning No. 2 fuel oil.
- Applicable Compliance Method
- If required, the permittee shall demonstrate compliance with either emission limitation through emission testing performed in accordance with Methods 1-4 and 7 of 40 CFR Part 60, Appendix A.
6. Emission Limitations:
- CO shall not exceed 0.16 lb/mmBtu of actual heat input when burning natural gas.
- CO shall not exceed 0.20 lb/mmBtu of actual heat input when burning No. 2 fuel oil.
- Applicable Compliance Method:
- If required, the permittee shall demonstrate compliance with either emission limitation through emission testing performed in accordance with Methods 1-4 and 10 of 40 CFR Part 60, Appendix A.
7. Emission Limitations:
- VOC shall not exceed 0.009 lb/mmBtu of actual heat input when burning natural gas.
- VOC shall not exceed 0.0014 lb/mmBtu of actual heat input when burning No. 2 fuel oil.
- Applicable Compliance Method:
- If required, the permittee shall demonstrate compliance with either emission limitation through emission testing performed in accordance with Methods 1-4 and 25 of 40 CFR Part 60, Appendix A.
8. Operational Restriction:
- The sulfur content of each shipment of No. 2 fuel oil received for burning in this emissions unit shall not exceed 0.3% by weight.
- Applicable Compliance Method:
- Compliance with the No. 2 fuel oil sulfur content restriction specified above shall be determined by the record keeping requirements specified in Section C.1.
9. Emission Limitation:
- The combined total Particulate Emissions (PE) emissions from the burning of natural gas and No. 2 fuel oil in emissions units B004, B005, and B006 shall not exceed 3.83 tons per year, based upon a rolling, 365-day period.
- Applicable Compliance Method:
- The annual PE limitation may be determined using the following equation:
- $$(1086 \text{ mmft}^3 \text{ natural gas/year} \times 1030 \text{ Btu/ft}^3 \times 0.005 \text{ lb of PE/mmBtu}) + (750,000 \text{ gallons of \#2 fuel oil/year} \times 138 \text{ mmBtu/1000 gallons} \times 0.02 \text{ lb of PE/mmBtu}) \times \text{ton/2000 lbs} = 3.83 \text{ TPY}$$
10. Emission Limitation:
- The combined total Sulfur Dioxide (SO<sub>2</sub>) emissions from the burning of natural gas and No. 2 fuel oil in emissions units B004, B005, and B006 shall not exceed 15.86 tons per year, based upon a rolling, 365-day period.
- Applicable Compliance Method:
- The annual SO<sub>2</sub> limitation may be determined using the following equation:
- $$(1086 \text{ mmft}^3 \text{ natural gas/year} \times 1030 \text{ Btu/ft}^3 \times 0.0006 \text{ lb of SO}_2\text{/mmBtu}) + (750,000 \text{ gallons of \#2 fuel oil/year} \times 138 \text{ mmBtu/1000 gallons} \times 0.3 \text{ lb of SO}_2\text{/mmBtu}) \times \text{ton/2000 lbs} = 15.86 \text{ TPY}$$
11. Emission Limitation:
- The combined total Nitrogen Oxide (NO<sub>x</sub>) emissions from the burning of natural gas and No. 2 fuel oil in emissions units B004, B005, and B006 shall not exceed 64.71 tons per year, based upon a rolling, 365-day period.
- Applicable Compliance Method:
- The annual NO<sub>x</sub> limitation may be determined using the following equation:
- $$(1086 \text{ mmft}^3 \text{ natural gas/year} \times 1030 \text{ Btu/ft}^3 \times 0.005 \text{ lb of NO}_x\text{/mmBtu}) + (750,000 \text{ gallons of \#2 fuel oil/year} \times 138 \text{ mmBtu/1000 gallons} \times 0.02 \text{ lb of NO}_x\text{/mmBtu}) \times \text{ton/2000 lbs} = 64.71 \text{ TPY}$$
12. Emission Limitation:
- The combined total Carbon Monoxide (CO) emissions from the burning of natural gas and No. 2 fuel oil in emissions units B004, B005, and B006 shall not exceed 99.9 tons per year, based upon a rolling, 365-day

period.

Applicable Compliance Method:

The annual CO limitation may was determined using the following equation:

$$(1086 \text{ mmft}^3 \text{ natural gas/year} \times 1030 \text{ Btu/ft}^3 \times 0.16 \text{ lb of CO/mmBtu}) + (750,000 \text{ gallons of \#2 fuel oil/year} \times 138 \text{ mmBtu/1000 gallons} \times 0.20 \text{ lb of CO/mmBtu}) \times \text{ton}/2000 \text{ lbs} = 99.9 \text{ TPY.}$$

13. Emission Limitation:

The combined total Volatile Organic Compound (VOC) emissions from the burning of natural gas and No. 2 fuel oil in emissions units B004, B005, and B006 shall not exceed 5.10 tons per year, based upon a rolling, 365-day period.

Applicable Compliance Method:

The annual VOC limitation may was determined using the following equation:

$$(1086 \text{ mmft}^3 \text{ natural gas/year} \times 1030 \text{ Btu/ft}^3 \times 0.009 \text{ lb of VOC/mmBtu}) + (750,000 \text{ gallons of \#2 fuel oil/year} \times 138 \text{ mmBtu/1000 gallons} \times 0.0014 \text{ lb of VOC/mmBtu}) \times \text{ton}/2000 \text{ lbs} = 5.10 \text{ TPY.}$$

14. The emission limitations were based upon emission factors from AP-42 "Compilation of Air Pollutant Emission Factors", 5th Edition Section 1.3 (9/98) for fuel oil, Section 1.4 (7/98) for natural gas and from emission factors supplied from the manufacturer.

**F. Miscellaneous Requirements**

1. In accordance with the OAC rule 3745-35-07(B), all of the terms and conditions contained in this permit are federally enforceable.

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

Facility ID: 1431070132 Emissions Unit ID: B005 Issuance type: Final State Permit To Operate

[Go to the top of this document](#)

**Part II - Special Terms and Conditions**

This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  - (a) None.

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

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B005-48.2 mmBtu/Hr Natural Gas/No. 2 Oil-Fired Boiler (#1)	OAC rule 3745-31-05(A)(3) (PTI 14-3326) 40 CFR Part 60, Subpart Dc	See terms A.2.a through A.2.c.  The emission limitation specified by this rule is less stringent than the emission limitations outlined in OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitations outlined in OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-10(B)(1)	When burning #2 fuel oil the emission limitation specified by this rule is the same as the particulate emission (PE) limitation outlined in OAC rule 3745-31-05(A)(3).
	OAC rule 3745-18-06(D)	When burning natural gas the emission limitation specified by this rule is less stringent than the particulate emission (PE) limitation outlined in OAC rule 3745-31-05(A)(3). The emission limitation specified by this rule is the same as the sulfur dioxide (SO2) emission limitation

OAC rule 3745-35-07(B)(2) outlined in OAC rule 3745-31-05(A)(3).  
See term A.2.d.  
OAC rule 3745-21-08(B) See term A.2.e.

**2. Additional Terms and Conditions**

- (a) The following emission limitations shall not be exceeded when burning only natural gas:

Emission Limitation:

PE shall not exceed 0.005 lb/mmBtu of actual heat input.  
SO<sub>2</sub> shall not exceed 0.0006 lb/mmBtu of actual heat input.  
NO<sub>x</sub> shall not exceed 0.10 lb/mmBtu of actual heat input.  
CO shall not exceed 0.16 lb/mmBtu of actual heat input.  
VOC shall not exceed 0.009 lb/mmBtu of actual heat input.  
The following emission limitations shall not be exceeded when burning No. 2 fuel oil:

PE shall not exceed 0.020 lb/mmBtu of actual heat input.  
SO<sub>2</sub> shall not exceed 0.3 lb/mmBtu of actual heat input.  
NO<sub>x</sub> shall not exceed 0.17 lb/mmBtu of actual heat input.  
CO shall not exceed 0.20 lb/mmBtu of actual heat input.  
VOC shall not exceed 0.0014 lb/mmBtu of actual heat input.  
Visible particulate emissions from any stack shall not exceed 20% opacity, as a six-minute average, except for a one-minute period of not more than 27% opacity.  
The combined total emissions from the burning of natural gas and No. 2 fuel oil in emissions units B004, B005, and B006 shall not exceed the following, based upon a rolling, 365-day period:

Particulate Emissions (PE) shall not exceed 3.83 TPY.  
Sulfur Dioxide (SO<sub>2</sub>) emissions shall not exceed 15.86 TPY.  
Nitrogen Oxide (NO<sub>x</sub>) emissions shall not exceed 64.71 TPY.  
Carbon Monoxide (CO) emissions shall not exceed 99.9 TPY.  
Volatile Organic Compound (VOC) emissions shall not exceed 5.10 TPY.  
The permittee shall satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology (BAT) requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 14-3326. The design of the emissions unit and the technology associated with the current operating practices satisfy the BAT requirements.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. This rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Until the U.S. EPA approves the revision to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

**B. Operational Restrictions**

1. This emissions unit shall employ a low NO<sub>x</sub> burner at all times when the unit is in operation.
2. Annual usage of No. 2 fuel oil in this emissions unit shall not exceed 250,000 gallons per year, based upon a rolling, 365-day period.
3. The combined annual usage of natural gas in emissions units B004, B005, and B006 shall not exceed 1086 million cubic feet per year based upon a rolling, 365-day period.
4. The sulfur content of each shipment of No. 2 fuel oil received for burning in this emissions unit shall not exceed 0.3% by weight.

**C. Monitoring and/or Record Keeping Requirements**

1. The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below.

a. Alternative 1:

For each shipment of oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

b. Alternative 2:

The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).

The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods, such as ASTM methods D240 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by

Bomb Calorimeter and D4294, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, or equivalent methods as approved by the director.

2. For each day during which the permittee burns a fuel other than natural gas or No.2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
3. The permittee shall maintain daily records of the following information:
  - a. the combined amount of natural gas (in million cubic feet) burned in emissions unit B004, B005, and B006;
  - b. the rolling, 365-day summation of natural gas (in million cubic feet) burned in emissions unit B004, B005, and B006;
  - c. the total amount of No. 2 fuel oil (in gallons) burned in this emissions unit;
  - d. the rolling, 365-day summation of the No. 2 fuel oil (in gallons) burned in this emissions unit; and
  - e. the rolling, 365-day summation of the total emissions of PE, SO<sub>2</sub>, NO<sub>x</sub>, CO and VOC from emissions units B004, B005, and B006.

**D. Reporting Requirements**

1. The permittee shall notify the director (the appropriate District Office or local air agency) in writing of any record which shows a deviation from the allowable sulfur dioxide emission limitation contained in this permit, based upon the sulfur dioxide emission rates calculated in accordance with the formula specified in OAC rule 3745-18-04(F). The notification shall include a copy of such record and shall be sent to the director (the appropriate District Office or local air agency) within 30 days after the deviation occurs.
2. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of:
  - a. the rolling, 365-day, natural gas usage limitation for emissions units B004, B005, and B006; and
  - b. the rolling, 365-day, No. 2 fuel oil usage limitation for this emissions unit.

These quarterly reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall cover the oil shipments received during the previous calendar quarters.

3. The permittee shall also submit annual reports which specify the following:
  - a. the total natural gas usage for emissions units B004, B005, and B006;
  - b. the total No. 2 fuel oil usage for this emissions unit; and
  - c. the total emissions of PE, SO<sub>2</sub>, NO<sub>x</sub>, CO and VOC from emissions units B004, B005, and B006.

These annual reports shall be submitted by January 31 of each year.

4. The permittee shall notify the Hamilton County of Environmental Services in writing of any fuel burned in this emissions unit other than natural gas or No. 2 fuel oil. The notification shall include a copy of such record and shall be sent to the Hamilton County of Environmental Services within 30 days after the deviation occurs.

**E. Testing Requirements**

1. Fuel Usage Limitations:
 

The combined annual usage of natural gas in emissions units B004, B005, and B006 shall not exceed 1086 million cubic feet per year based upon a rolling, 365-day period.

Annual usage of No. 2 fuel oil in this emissions unit shall not exceed 250,000 gallons per year, based upon a rolling, 365-day period.

Applicable Compliance Method:

Compliance with the fuel usage limitations shall be demonstrated by the record keeping requirements outlined in Section C.3.
2. Emission Limitation:
 

Visible particulate emissions from any stack shall not exceed 20% opacity, as a six-minute average, except for a one-minute period of not more than 27% opacity.

Applicable Compliance Method:

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

PE shall not exceed 0.005 lb/mmBtu of actual heat input when burning natural gas.

PE shall not exceed 0.020 lb/mmBtu of actual heat input when burning No. 2 fuel oil.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the PE emission limitations through emission tests performed in accordance with the Methods 1-5 of 40 CFR Part 60, Appendix A.
4. Emission Limitation:

SO<sub>2</sub> shall not exceed 0.0006 lb/mmBtu of actual heat input when burning natural gas.

Applicable Compliance Method:

Compliance with the lb/mmBtu emission limitation may be determined by the following equation:

$0.0468 \text{ mmft}^3/\text{hr}(\text{max hourly gas burning capacity of emissions unit}) \times 0.6 \text{ lb of SO}_2/\text{mmft}^3 \text{ (AP-42 emission factor)} / 48.2 \text{ mmBtu/hr} = 0.0006 \text{ lb of SO}_2/\text{mmBtu}.$

Emission Limitation:

SO<sub>2</sub> shall not exceed 0.3 lb/mmBtu of actual heat input when burning No. 2 fuel oil.

Applicable Compliance Method:

Compliance with the lb/mmBtu emission limitation may be determined by the following equation which is specified in OAC rule 3745-18-04(F)(2):

$\text{lb/mmBtu} = (1 \times 10^6) / \text{heat content of the liquid fuel in Btu/gallon} \times \text{density of liquid fuel in lbs/gallon} \times \text{the decimal fraction of sulfur in the liquid fuel}.$

If required, the permittee shall demonstrate compliance with these emission limitations through emission testing performed in accordance with Methods 1-4 and 6 of 40 CFR Part 60, Appendix A.

5. Emission Limitations:

NO<sub>x</sub> shall not exceed 0.10 lb/mmBtu of actual heat input when burning natural gas.

NO<sub>x</sub> shall not exceed 0.17 lb/mmBtu of actual heat input when burning No. 2 fuel oil.

Applicable Compliance Method

If required, the permittee shall demonstrate compliance with either emission limitation through emission testing performed in accordance with Methods 1-4 and 7 of 40 CFR Part 60, Appendix A.

6. Emission Limitations:

CO shall not exceed 0.16 lb/mmBtu of actual heat input when burning natural gas.

CO shall not exceed 0.20 lb/mmBtu of actual heat input when burning No. 2 fuel oil.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with either emission limitation through emission testing performed in accordance with Methods 1-4 and 10 of 40 CFR Part 60, Appendix A.

7. Emission Limitations:

VOC shall not exceed 0.009 lb/mmBtu of actual heat input when burning natural gas.

VOC shall not exceed 0.0014 lb/mmBtu of actual heat input when burning No. 2 fuel oil.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with either emission limitation through emission testing performed in accordance with mMethods 1-4 and 25 of 40 CFR Part 60, Appendix A.

8. Operational Restriction:

The sulfur content of each shipment of No. 2 fuel oil received for burning in this emissions unit shall not exceed 0.3% by weight.

Applicable Compliance Method:

Compliance with the No. 2 fuel oil sulfur content restriction specified above shall be determined by the record keeping requirements specified in Section C.1.

9. Emission Limitation:

The combined total Particulate Emissions (PE) emissions from the burning of natural gas and No. 2 fuel oil in emissions units B004, B005, and B006 shall not exceed 3.83 tons per year, based upon a rolling, 365-day period.

Applicable Compliance Method:

The annual PE limitation may was determined using the following equation:

$(1086 \text{ mmft}^3 \text{ natural gas/year} \times 1030 \text{ Btu/ft}^3 \times 0.005 \text{ lb of PE/mmBtu}) + (750,000 \text{ gallons of \#2 fuel oil/year} \times 138 \text{ mmBtu/1000 gallons} \times 0.02 \text{ lb of PE/mmBtu}) \times \text{ton/2000 lbs} = 3.83 \text{ TPY}$

10. Emission Limitation:

The combined total Sulfur Dioxide (SO<sub>2</sub>) emissions from the burning of natural gas and No. 2 fuel oil in emissions units B004, B005, and B006 shall not exceed 15.86 tons per year, based upon a rolling, 365-day period.

Applicable Compliance Method:

The annual SO<sub>2</sub> limitation may was determined using the following equation:

$(1086 \text{ mmft}^3 \text{ natural gas/year} \times 1030 \text{ Btu/ft}^3 \times 0.0006 \text{ lb of SO}_2/\text{mmBtu}) + (750,000 \text{ gallons of \#2 fuel oil/year} \times 138 \text{ mmBtu}/1000 \text{ gallons} \times 0.3 \text{ lb of SO}_2/\text{mmBtu}) \times \text{ton}/2000 \text{ lbs} = 15.86 \text{ TPY.}$

11. Emission Limitation:

The combined total Nitrogen Oxide (NO<sub>x</sub>) emissions from the burning of natural gas and No. 2 fuel oil in emissions units B004, B005, and B006 shall not exceed 64.71 tons per year, based upon a rolling, 365-day period.

Applicable Compliance Method:

The annual NO<sub>x</sub> limitation may was determined using the following equation:

$(1086 \text{ mmft}^3 \text{ natural gas/year} \times 1030 \text{ Btu/ft}^3 \times 0.005 \text{ lb of NO}_x/\text{mmBtu}) + (750,000 \text{ gallons of \#2 fuel oil/year} \times 138 \text{ mmBtu}/1000 \text{ gallons} \times 0.02 \text{ lb of NO}_x/\text{mmBtu}) \times \text{ton}/2000 \text{ lbs} = 64.71 \text{ TPY.}$

12. Emission Limitation:

The combined total Carbon Monoxide (CO) emissions from the burning of natural gas and No. 2 fuel oil in emissions units B004, B005, and B006 shall not exceed 99.9 tons per year, based upon a rolling, 365-day period.

Applicable Compliance Method:

The annual CO limitation may was determined using the following equation:

$(1086 \text{ mmft}^3 \text{ natural gas/year} \times 1030 \text{ Btu/ft}^3 \times 0.16 \text{ lb of CO}/\text{mmBtu}) + (750,000 \text{ gallons of \#2 fuel oil/year} \times 138 \text{ mmBtu}/1000 \text{ gallons} \times 0.20 \text{ lb of CO}/\text{mmBtu}) \times \text{ton}/2000 \text{ lbs} = 99.9 \text{ TPY.}$

13. Emission Limitation:

The combined total Volatile Organic Compound (VOC) emissions from the burning of natural gas and No. 2 fuel oil in emissions units B004, B005, and B006 shall not exceed 5.10 tons per year, based upon a rolling, 365-day period.

Applicable Compliance Method:

The annual VOC limitation may was determined using the following equation:

$(1086 \text{ mmft}^3 \text{ natural gas/year} \times 1030 \text{ Btu/ft}^3 \times 0.009 \text{ lb of VOC}/\text{mmBtu}) + (750,000 \text{ gallons of \#2 fuel oil/year} \times 138 \text{ mmBtu}/1000 \text{ gallons} \times 0.0014 \text{ lb of VOC}/\text{mmBtu}) \times \text{ton}/2000 \text{ lbs} = 5.10 \text{ TPY.}$

14. The emission limitations were based upon emission factors from AP-42 "Compilation of Air Pollutant Emission Factors", 5th Edition Section 1.3 (9/98) for fuel oil, Section 1.4 (7/98) for natural gas and from emission factors supplied from the manufacturer.

F. **Miscellaneous Requirements**

1. In accordance with the OAC rule 3745-35-07(B), all of the terms and conditions contained in this permit are federally enforceable.

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

Facility ID: 1431070132 Emissions Unit ID: B006 Issuance type: Final State Permit To Operate

[Go to the top of this document](#)

**Part II - Special Terms and Conditions**

This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  - (a) None.

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

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B006-48.2 mmBtu/Hr Natural Gas/No. 2 Oil-Fired Boiler (#1)	OAC rule 3745-31-05(A)(3) (PTI 14-3326)	See terms A.2.a through A.2.c.
	40 CFR Part 60, Subpart Dc	The emission limitation specified by this rule is less stringent than the emission limitations outlined in OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The emission limitation specified by this rule is less stringent than the emission limitations outlined in OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-10(B)(1)	When burning #2 fuel oil the emission limitation specified by this rule is the same as the particulate emission (PE) limitation outlined in OAC rule 3745-31-05(A)(3).
	OAC rule 3745-18-06(D)	When burning natural gas the emission limitation specified by this rule is less stringent than the particulate emission (PE) limitation outlined in OAC rule 3745-31-05(A)(3).
	OAC rule 3745-35-07(B)(2)	The emission limitation specified by this rule is the same as the sulfur dioxide (SO2) emission limitation outlined in OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-08(B)	See term A.2.d.
		See term A.2.e.

**2. Additional Terms and Conditions**

- (a) The following emission limitations shall not be exceeded when burning only natural gas:

Emission Limitation:

PE shall not exceed 0.005 lb/mmBtu of actual heat input.  
 SO2 shall not exceed 0.0006 lb/mmBtu of actual heat input.  
 NOx shall not exceed 0.10 lb/mmBtu of actual heat input.  
 CO shall not exceed 0.16 lb/mmBtu of actual heat input .  
 VOC shall not exceed 0.009 lb/mmBtu of actual heat input.

The following emission limitations shall not be exceeded when burning No. 2 fuel oil:

PE shall not exceed 0.020 lb/mmBtu of actual heat input.  
 SO2 shall not exceed 0.3 lb/mmBtu of actual heat input.  
 NOx shall not exceed 0.17 lb/mmBtu of actual heat input.  
 CO shall not exceed 0.20 lb/mmBtu of actual heat input.  
 VOC shall not exceed 0.0014 lb/mmBtu of actual heat input.  
 Visible particulate emissions from any stack shall not exceed 20% opacity, as a six-minute average, except for a one-minute period of not more than 27% opacity.  
 The combined total emissions from the burning of natural gas and No. 2 fuel oil in emissions units B004, B005, and B006 shall not exceed the following, based upon a rolling, 365-day period:

Particulate Emissions (PE) shall not exceed 3.83 TPY.  
 Sulfur Dioxide (SO2) emissions shall not exceed 15.86 TPY.  
 Nitrogen Oxide (NOx) emissions shall not exceed 64.71 TPY.  
 Carbon Monoxide (CO) emissions shall not exceed 99.9 TPY.  
 Volatile Organic Compound (VOC) emissions shall not exceed 5.10 TPY.  
 The permittee shall satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology (BAT) requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 14-3326. The design of the emissions unit and the technology associated with the current operating practices satisfy the BAT requirements.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. This rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Until the U.S. EPA approves the revision to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

**B. Operational Restrictions**

1. This emissions unit shall employ a low NOx burner at all times when the unit is in operation.
2. Annual usage of No. 2 fuel oil in this emissions unit shall not exceed 250,000 gallons per year, based upon a rolling, 365-day period.
3. The combined annual usage of natural gas in emissions units B004, B005, and B006 shall not exceed 1086 million cubic feet per year based upon a rolling, 365-day period.
4. The sulfur content of each shipment of No. 2 fuel oil received for burning in this emissions unit shall not exceed 0.3% by weight.

**C. Monitoring and/or Record Keeping Requirements**

1. The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below.
  - a. Alternative 1:

For each shipment of oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

b. Alternative 2:

The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).

The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods, such as ASTM methods D240 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter and D4294, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, or equivalent methods as approved by the director.

2. For each day during which the permittee burns a fuel other than natural gas or No.2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
3. The permittee shall maintain daily records of the following information:
  - a. the combined amount of natural gas (in million cubic feet) burned in emissions unit B004, B005, and B006;
  - b. the rolling, 365-day summation of natural gas (in million cubic feet) burned in emissions unit B004, B005, and B006;
  - c. the total amount of No. 2 fuel oil (in gallons) burned in this emissions unit;
  - d. the rolling, 365-day summation of the No. 2 fuel oil (in gallons) burned in this emissions unit; and
  - e. the rolling, 365-day summation of the total emissions of PE, SO<sub>2</sub>, NO<sub>x</sub>, CO and VOC from emissions units B004, B005, and B006.

**D. Reporting Requirements**

1. The permittee shall notify the director (the appropriate District Office or local air agency) in writing of any record which shows a deviation from the allowable sulfur dioxide emission limitation contained in this permit, based upon the sulfur dioxide emission rates calculated in accordance with the formula specified in OAC rule 3745-18-04(F). The notification shall include a copy of such record and shall be sent to the director (the appropriate District Office or local air agency) within 30 days after the deviation occurs.
2. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of:
  - a. the rolling, 365-day, natural gas usage limitation for emissions units B004, B005, and B006; and
  - b. the rolling, 365-day, No. 2 fuel oil usage limitation for this emissions unit.

These quarterly reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall cover the oil shipments received during the previous calendar quarters.
3. The permittee shall also submit annual reports which specify the following:
  - a. the total natural gas usage for emissions units B004, B005, and B006;
  - b. the total No. 2 fuel oil usage for this emissions unit; and
  - c. the total emissions of PE, SO<sub>2</sub>, NO<sub>x</sub>, CO and VOC from emissions units B004, B005, and B006.

These annual reports shall be submitted by January 31 of each year.
4. The permittee shall notify the Hamilton County of Environmental Services in writing of any fuel burned in this emissions unit other than natural gas or No. 2 fuel oil. The notification shall include a copy of such record and shall be sent to the Hamilton County of Environmental Services within 30 days after the deviation occurs.

**E. Testing Requirements**

1. Fuel Usage Limitations:
 

The combined annual usage of natural gas in emissions units B004, B005, and B006 shall not exceed 1086 million cubic feet per year based upon a rolling, 365-day period.

Annual usage of No. 2 fuel oil in this emissions unit shall not exceed 250,000 gallons per year, based upon a rolling, 365-day period.

Applicable Compliance Method:

Compliance with the fuel usage limitations shall be demonstrated by the record keeping requirements outlined in Section C.3.

2. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity, as a six-minute average, except for a one-minute period of not more than 27% opacity.

Applicable Compliance Method:

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

PE shall not exceed 0.005 lb/mmBtu of actual heat input when burning natural gas.

PE shall not exceed 0.020 lb/mmBtu of actual heat input when burning No. 2 fuel oil.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the PE emission limitations through emission tests performed in accordance with the Methods 1-5 of 40 CFR Part 60, Appendix A.
4. Emission Limitation:

SO<sub>2</sub> shall not exceed 0.0006 lb/mmBtu of actual heat input when burning natural gas.

Applicable Compliance Method:

Compliance with the lb/mmBtu emission limitation may be determined by the following equation:

$$0.0468 \text{ mmft}^3/\text{hr} (\text{max hourly gas burning capacity of emissions unit}) \times 0.6 \text{ lb of SO}_2/\text{mmft}^3 (\text{AP-42 emission factor}) / 48.2 \text{ mmBtu/hr} = 0.0006 \text{ lb of SO}_2/\text{mmBtu}.$$

Emission Limitation:

SO<sub>2</sub> shall not exceed 0.3 lb/mmBtu of actual heat input when burning No. 2 fuel oil.

Applicable Compliance Method:

Compliance with the lb/mmBtu emission limitation may be determined by the following equation which is specified in OAC rule 3745-18-04(F)(2):

$$\text{lb/mmBtu} = (1 \times 10^6) / (\text{heat content of the liquid fuel in Btu/gallon} \times \text{density of liquid fuel in lbs/gallon} \times \text{the decimal fraction of sulfur in the liquid fuel}).$$

If required, the permittee shall demonstrate compliance with these emission limitations through emission testing performed in accordance with Methods 1-4 and 6 of 40 CFR Part 60, Appendix A.
5. Emission Limitations:

NO<sub>x</sub> shall not exceed 0.10 lb/mmBtu of actual heat input when burning natural gas.

NO<sub>x</sub> shall not exceed 0.17 lb/mmBtu of actual heat input when burning No. 2 fuel oil.

Applicable Compliance Method

If required, the permittee shall demonstrate compliance with either emission limitation through emission testing performed in accordance with Methods 1-4 and 7 of 40 CFR Part 60, Appendix A.
6. Emission Limitations:

CO shall not exceed 0.16 lb/mmBtu of actual heat input when burning natural gas.

CO shall not exceed 0.20 lb/mmBtu of actual heat input when burning No. 2 fuel oil.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with either emission limitation through emission testing performed in accordance with Methods 1-4 and 10 of 40 CFR Part 60, Appendix A.
7. Emission Limitations:

VOC shall not exceed 0.009 lb/mmBtu of actual heat input when burning natural gas.

VOC shall not exceed 0.0014 lb/mmBtu of actual heat input when burning No. 2 fuel oil.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with either emission limitation through emission testing performed in accordance with mMethods 1-4 and 25 of 40 CFR Part 60, Appendix A.
8. Operational Restriction:

The sulfur content of each shipment of No. 2 fuel oil received for burning in this emissions unit shall not exceed 0.3% by weight.

Applicable Compliance Method:

Compliance with the No. 2 fuel oil sulfur content restriction specified above shall be determined by the record keeping requirements specified in Section C.1.

9. Emission Limitation:

The combined total Particulate Emissions (PE) emissions from the burning of natural gas and No. 2 fuel oil in emissions units B004, B005, and B006 shall not exceed 3.83 tons per year, based upon a rolling, 365-day period.

Applicable Compliance Method:

The annual PE limitation may was determined using the following equation:

$(1086 \text{ mmft}^3 \text{ natural gas/year} \times 1030 \text{ Btu/ft}^3 \times 0.005 \text{ lb of PE/mmBtu}) + (750,000 \text{ gallons of \#2 fuel oil/year} \times 138 \text{ mmBtu/1000 gallons} \times 0.02 \text{ lb of PE/mmBtu}) \times \text{ton}/2000 \text{ lbs} = 3.83 \text{ TPY}$

10. Emission Limitation:

The combined total Sulfur Dioxide (SO<sub>2</sub>) emissions from the burning of natural gas and No. 2 fuel oil in emissions units B004, B005, and B006 shall not exceed 15.86 tons per year, based upon a rolling, 365-day period.

Applicable Compliance Method:

The annual SO<sub>2</sub> limitation may was determined using the following equation:

$(1086 \text{ mmft}^3 \text{ natural gas/year} \times 1030 \text{ Btu/ft}^3 \times 0.0006 \text{ lb of SO}_2\text{/mmBtu}) + (750,000 \text{ gallons of \#2 fuel oil/year} \times 138 \text{ mmBtu/1000 gallons} \times 0.3 \text{ lb of SO}_2\text{/mmBtu}) \times \text{ton}/2000 \text{ lbs} = 15.86 \text{ TPY}$

11. Emission Limitation:

The combined total Nitrogen Oxide (NO<sub>x</sub>) emissions from the burning of natural gas and No. 2 fuel oil in emissions units B004, B005, and B006 shall not exceed 64.71 tons per year, based upon a rolling, 365-day period.

Applicable Compliance Method:

The annual NO<sub>x</sub> limitation may was determined using the following equation:

$(1086 \text{ mmft}^3 \text{ natural gas/year} \times 1030 \text{ Btu/ft}^3 \times 0.005 \text{ lb of NO}_x\text{/mmBtu}) + (750,000 \text{ gallons of \#2 fuel oil/year} \times 138 \text{ mmBtu/1000 gallons} \times 0.02 \text{ lb of NO}_x\text{/mmBtu}) \times \text{ton}/2000 \text{ lbs} = 64.71 \text{ TPY}$

12. Emission Limitation:

The combined total Carbon Monoxide (CO) emissions from the burning of natural gas and No. 2 fuel oil in emissions units B004, B005, and B006 shall not exceed 99.9 tons per year, based upon a rolling, 365-day period.

Applicable Compliance Method:

The annual CO limitation may was determined using the following equation:

$(1086 \text{ mmft}^3 \text{ natural gas/year} \times 1030 \text{ Btu/ft}^3 \times 0.16 \text{ lb of CO/mmBtu}) + (750,000 \text{ gallons of \#2 fuel oil/year} \times 138 \text{ mmBtu/1000 gallons} \times 0.20 \text{ lb of CO/mmBtu}) \times \text{ton}/2000 \text{ lbs} = 99.9 \text{ TPY}$

13. Emission Limitation:

The combined total Volatile Organic Compound (VOC) emissions from the burning of natural gas and No. 2 fuel oil in emissions units B004, B005, and B006 shall not exceed 5.10 tons per year, based upon a rolling, 365-day period.

Applicable Compliance Method:

The annual VOC limitation may was determined using the following equation:

$(1086 \text{ mmft}^3 \text{ natural gas/year} \times 1030 \text{ Btu/ft}^3 \times 0.009 \text{ lb of VOC/mmBtu}) + (750,000 \text{ gallons of \#2 fuel oil/year} \times 138 \text{ mmBtu/1000 gallons} \times 0.0014 \text{ lb of VOC/mmBtu}) \times \text{ton}/2000 \text{ lbs} = 5.10 \text{ TPY}$

14. The emission limitations were based upon emission factors from AP-42 "Compilation of Air Pollutant Emission Factors", 5th Edition Section 1.3 (9/98) for fuel oil, Section 1.4 (7/98) for natural gas and from emission factors supplied from the manufacturer.

F. **Miscellaneous Requirements**

1. In accordance with the OAC rule 3745-35-07(B), all of the terms and conditions contained in this permit are federally enforceable.