

Facility ID: 1483040158 Issuance type: Draft 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.

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

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Facility ID: 1483040158 Emissions Unit ID: B002 Issuance type: Draft State Permit To Operate

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**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>   |
|---|--------------------------------------|--|
| 86.2 MMBtu/hr gas/No 2 oil fired boiler       | OAC 3745-35-07                       | See A.2.   |
|   | OAC 3745-17-07(A)(1)                 | Visible particulate emissions shall not exceed 20% opacity as a six-minute average, except as specified by rule. |
|   | OAC 3745-17-10(B)(1)                 | Particulate emissions shall not exceed 0.020 LB PM/MMBtu of actual heat input.                                   |
|   | OAC 3745-18-06(C)                    | SO2 emissions shall not exceed 1.6 LBS SO2/MMBtu of actual heat input.   |

**2. Additional Terms and Conditions**

- (b) The emissions of SO2 and NOx from emissions units B002 and B004 combined shall not exceed 99.80 TPY and 52.86 TPY, respectively, based on rolling, 12-month summations.

To ensure federal enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the emission levels specified in the following table:

- Maximum Allowable Maximum Allowable  
 - Cumulative Emissions Cumulative Emissions  
 Months of SO2 (tons) of NOx (tons)

|      |       |       |
|------|-------|-------|
| 1-6  | 49.90 | 26.43 |
| 1-7  | 58.22 | 30.84 |
| 1-8  | 66.54 | 35.24 |
| 1-9  | 74.86 | 39.65 |
| 1-10 | 83.18 | 44.05 |
| 1-11 | 91.50 | 48.46 |
| 1-12 | 99.80 | 52.86 |

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual emission limitations for SO2 and NOx shall be based upon rolling, 12-month summations of the monthly emissions.

**B. Operational Restrictions**

1. The quality of the oil burned in B002 shall meet the following specifications on an "as received" basis:
  - a. a sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation of 1.6 LBS SO2/MMBtu of actual heat input; and
  - b. a heat content greater than 140,000 Btu/gallon of oil.

Compliance with the above-mentioned specifications shall be determined by using the analytical results provided by the permittee or oil supplier for each shipment of oil.

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

1. For each shipment of oil received for burning in B002 and B004, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content and heat content.

The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of oil that is received for burning in these emissions units. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. Alternative or equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.

2. The permittee shall maintain monthly records of the following information for B002 and B004 combined:
  - a. the fuel oil usage rate, in gallons;
  - b. the natural gas usage rate, in millions of cubic feet;
  - c. the rolling, 12-month summation of the fuel oil usage, in gallons;
  - d. the rolling, 12-month summation of the natural gas usage, in millions of cubic feet;
  - e. the SO<sub>2</sub> emissions rate, in tons per month;
  - f. the rolling, 12-month summation of SO<sub>2</sub> emissions, in tons per year;
  - g. the NO<sub>x</sub> emissions rate, in tons per month; and
  - h. the rolling, 12-month summation of NO<sub>x</sub> emissions, in tons per year.

**D. Reporting Requirements**

1. The permittee shall submit, on a quarterly basis, copies of the permittee's or oil supplier's analyses for each shipment of oil which is received for burning in B002 and B004. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil. The following information shall also be included with the copies of the permittee's or oil supplier's analyses:
  - a. the total quantity of oil received in each shipment, in gallons;
  - b. the weighted average\* heat content, in Btu/gallon, for all shipments of oil received during each calendar month;
  - c. the weighted average\* sulfur content, in percent by weight, for all shipments of oil received during each calendar month; and
  - d. the weighted average\* sulfur dioxide emissions rate, in pounds/MMBtu of actual heat input, for all shipments of oil received during each calendar month.

\*In proportion to the quantity of oil received in each shipment during the calendar month.

2. The permittee shall submit quarterly deviation (excursion) reports which identify any exceedances of the cumulative and rolling, 12-month SO<sub>2</sub> and NO<sub>x</sub> emission limitations for B002 and B004 combined.
3. The permittee shall submit annual reports which summarize the total SO<sub>2</sub> and NO<sub>x</sub> emissions from B002 and B004 combined for the previous calendar year. The permittee shall submit these reports to the appropriate Ohio EPA District Office or local air agency by February 15 of each year.

**E. Testing Requirements**

1. Compliance with the visible emission limitation in A.1. shall be determined in accordance with the methods outlined in OAC 3745-17-03(B)(1).
2. Compliance with the PM emission limitation in A.1. shall be demonstrated by using the AP-42 emission factor for No 2 fuel oil and the following equation:
 
$$(2.0 \text{ LBS PM}/1000 \text{ gal}) \times 1/\text{actual heat content (MMBtu}/1000 \text{ gal}) = \text{LB PM/MMBtu of actual heat input.}$$

If required, compliance with the PM emission limit shall be demonstrated by performing an emission test when burning No 2 fuel oil, in accordance with 40 CFR Part 60, Appendix A, Method 5.
3. Compliance with the SO<sub>2</sub> emission limitation in A.1. shall be demonstrated by using the AP-42 emission factor for No 2 fuel oil and the following equation (where S = the actual weight % sulfur in the fuel):
 
$$(142(S) \text{ LBS SO}_2/1000 \text{ gal}) \times 1/\text{actual heat content (MMBtu}/1000 \text{ gal}) = \text{LBS SO}_2/\text{MMBtu of actual heat input}$$

If required, compliance with the SO<sub>2</sub> emission limit shall be demonstrated by performing an emission test when burning No 2 fuel oil, in accordance with 40 CFR Part 60, Appendix A, Method 6.
4. Compliance with the rolling, 12-month SO<sub>2</sub> emission limitation in A.2. shall be the summation of the calculated rolling, 12-month emissions for B002 and B004.
 

The permittee shall calculate the rolling, 12-month SO<sub>2</sub> emissions for B002 and B004 by using AP-42 emission factors (EF) in the following equations:

  - a.  $(0.6 \text{ LB SO}_2/\text{mmcf natural gas}) \times \text{actual (rolling) mmcf natural gas}/\text{yr} \times \text{ton}/2000 \text{ lbs} = \text{TPY SO}_2$ ; and
  - b.  $(142(S) \text{ LBS SO}_2/1000 \text{ gal fuel oil}) \times \text{actual (rolling) gal fuel oil}/\text{yr} \times \text{ton}/2000 \text{ lbs} = \text{TPY SO}_2$ .
5. Compliance with the rolling, 12-month NO<sub>x</sub> emission limitation in A.2. shall be the summation of the calculated rolling, 12-month emissions for B002 and B004.
 

The permittee shall calculate the rolling, 12-month NO<sub>x</sub> emissions for B002 and B004 by using AP-42 emission factors (EF) in the following equations:

  - a.  $(140 \text{ LBS NO}_x/\text{mmcf natural gas}) \times \text{actual (rolling) mmcf natural gas}/\text{yr} \times \text{ton}/2000 \text{ lbs} = \text{TPY NO}_x$ ; and
  - b.  $(20 \text{ LBS NO}_x/1000 \text{ gal fuel oil}) \times \text{actual (rolling) gal fuel oil}/\text{yr} \times \text{ton}/2000 \text{ lbs} = \text{TPY NO}_x$ .

**F. Miscellaneous Requirements**

1. The following terms and conditions are federally enforceable requirements: A-F.

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Facility ID: 1483040158 Emissions Unit ID: B004 Issuance type: Draft State Permit To Operate

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**Part II - Special Terms and Conditions**

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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>   |
|---|--|--|
| 118.0 MMBtu/hr gas/No 2 oil fired boiler      | OAC 3745-35-07<br>OAC 3745-17-07(A)(1)<br>See F. | See A.2.<br>Visible particulate emissions shall not exceed 20% opacity as a six-minute average, except as specified by rule. |
|   | OAC 3745-17-10(B)(1)<br>See F.                   | Particulate emissions shall not exceed 0.020 LB PM/MMBtu of actual heat input.   |
|   | OAC 3745-18-06(C)<br>See F.                      | SO2 emissions shall not exceed 1.6 LBS SO2/MMBtu of actual heat input.   |

**2. Additional Terms and Conditions**

- (b) The emissions of SO2 and NOx from emissions units B002 and B004 combined shall not exceed 99.80 TPY and 52.86 TPY, respectively, based on rolling, 12-month summations.

To ensure federal enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the emission levels specified in the following table:

- Maximum Allowable Maximum Allowable  
- Cumulative Emissions Cumulative Emissions  
Months of SO2 (tons) of NOx (tons)

|      |       |       |
|------|-------|-------|
| 1-6  | 49.90 | 26.43 |
| 1-7  | 58.22 | 30.84 |
| 1-8  | 66.54 | 35.24 |
| 1-9  | 74.86 | 39.65 |
| 1-10 | 83.18 | 44.05 |
| 1-11 | 91.50 | 48.46 |
| 1-12 | 99.80 | 52.86 |

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual emission limitations for SO2 and NOx shall be based upon rolling, 12-month summations of the monthly emissions.

**B. Operational Restrictions**

1. The quality of the oil burned in B004 shall meet the following specifications on an "as received" basis:
  - a. a sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation of 1.6 LBS SO2/MMBtu of actual heat input; and
  - b. a heat content greater than 140,000 Btu/gallon of oil.

Compliance with the above-mentioned specifications shall be determined by using the analytical results provided by the permittee or oil supplier for each shipment of oil.

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

1. For each shipment of oil received for burning in B002 and B004, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content and heat content.

The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of oil that is received for burning in these emissions units. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240

for heat content. Alternative or equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.

2. The permittee shall maintain monthly records of the following information for B002 and B004 combined:

- a. the fuel oil usage rate, in gallons;
- b. the natural gas usage rate, in millions of cubic feet;
- c. the rolling, 12-month summation of the fuel oil usage, in gallons;
- d. the rolling, 12-month summation of the natural gas usage, in millions of cubic feet;
- e. the SO<sub>2</sub> emissions rate, in tons per month;
- f. the rolling, 12-month summation of SO<sub>2</sub> emissions, in tons per year;
- g. the NO<sub>x</sub> emissions rate, in tons per month; and
- h. the rolling, 12-month summation of NO<sub>x</sub> emissions, in tons per year.

**D. Reporting Requirements**

1. The permittee shall submit, on a quarterly basis, copies of the permittee's or oil supplier's analyses for each shipment of oil which is received for burning in B002 and B004. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil. The following information shall also be included with the copies of the permittee's or oil supplier's analyses:

- a. the total quantity of oil received in each shipment, in gallons;
- b. the weighted average\* heat content, in Btu/gallon, for all shipments of oil received during each calendar month;
- c. the weighted average\* sulfur content, in percent by weight, for all shipments of oil received during each calendar month; and
- d. the weighted average\* sulfur dioxide emissions rate, in pounds/MMBtu of actual heat input, for all shipments of oil received during each calendar month.

\*In proportion to the quantity of oil received in each shipment during the calendar month.

2. The permittee shall submit quarterly deviation (excursion) reports which identify any exceedances of the cumulative and rolling, 12-month SO<sub>2</sub> and NO<sub>x</sub> emission limitations for B002 and B004 combined.
3. The permittee shall submit annual reports which summarize the total SO<sub>2</sub> and NO<sub>x</sub> emissions from B002 and B004 combined for the previous calendar year. The permittee shall submit these reports to the appropriate Ohio EPA District Office or local air agency by February 15 of each year.

**E. Testing Requirements**

1. Compliance with the visible emission limitation in A.1. shall be determined in accordance with the methods outlined in OAC 3745-17-03(B)(1).

2. Compliance with the PM emission limitation in A.1. shall be demonstrated by using the AP-42 emission factor for No 2 fuel oil and the following equation:

$$(2.0 \text{ LBS PM}/1000 \text{ gal}) \times 1/\text{actual heat content (MMBtu}/1000 \text{ gal}) = \text{LB PM/MMBtu of actual heat input.}$$

If required, compliance with the PM emission limit shall be demonstrated by performing an emission test when burning No 2 fuel oil, in accordance with 40 CFR Part 60, Appendix A, Method 5.

3. Compliance with the SO<sub>2</sub> emission limitation in A.1. shall be demonstrated by using the AP-42 emission factor for No 2 fuel oil and the following equation (where S = the actual weight % sulfur in the fuel):

$$(142(S) \text{ LBS SO}_2/1000 \text{ gal}) \times 1/\text{actual heat content (MMBtu}/1000 \text{ gal}) = \text{LBS SO}_2/\text{MMBtu of actual heat input}$$

If required, compliance with the SO<sub>2</sub> emission limit shall be demonstrated by performing an emission test when burning No 2 fuel oil, in accordance with 40 CFR Part 60, Appendix A, Method 6.

4. Compliance with the rolling, 12-month SO<sub>2</sub> emission limitation in A.2. shall be the summation of the calculated rolling, 12-month emissions for B002 and B004.

The permittee shall calculate the rolling, 12-month SO<sub>2</sub> emissions for B002 and B004 by using AP-42 emission factors (EF) in the following equations:

$$\text{a. } (0.6 \text{ LB SO}_2/\text{mmcf natural gas}) \times \text{actual (rolling) mmcf natural gas}/\text{yr} \times \text{ton}/2000 \text{ lbs} = \text{TPY SO}_2; \text{ and}$$

$$\text{b. } (142(S) \text{ LBS SO}_2/1000 \text{ gal fuel oil}) \times \text{actual (rolling) gal fuel oil}/\text{yr} \times \text{ton}/2000 \text{ lbs} = \text{TPY SO}_2.$$

5. Compliance with the rolling, 12-month NO<sub>x</sub> emission limitation in A.2. shall be the summation of the calculated rolling, 12-month emissions for B002 and B004.

The permittee shall calculate the rolling, 12-month NO<sub>x</sub> emissions for B002 and B004 by using AP-42 emission factors (EF) in the following equations:

$$\text{a. } (140 \text{ LBS NO}_x/\text{mmcf natural gas}) \times \text{actual (rolling) mmcf natural gas}/\text{yr} \times \text{ton}/2000 \text{ lbs} = \text{TPY NO}_x; \text{ and}$$

$$\text{b. } (20 \text{ LBS NO}_x/1000 \text{ gal fuel oil}) \times \text{actual (rolling) gal fuel oil}/\text{yr} \times \text{ton}/2000 \text{ lbs} = \text{TPY NO}_x.$$

**F. Miscellaneous Requirements**

1. The following terms and conditions shall supersede all the air pollution control requirements for this emissions unit contained in permit to install number 14-1043, as issued on 9-17-86: A.1 (excluding 3745-35-07), B, C, D, and E.

The following terms and conditions are federally enforceable requirements: A-F.