

Facility ID: 1431071268 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.

[Go to Part II for Emissions Unit B001](#)

[Go to Part II for Emissions Unit B002](#)

[Go to Part II for Emissions Unit B003](#)

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Facility ID: 1431071268 Emissions Unit ID: B001 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>
27.5 MMBtu/hr.Natural gas/ No. 2 fuel oil fired boiler.	OAC 3745-17-10(B)(1)	0.020 pound of particulate emissions per MMBTU actual heat input.
	OAC 3745-17-07(A)	Visible particulate emissions from the boiler exhaust stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
	OAC 3745-35-07	0.0006 pound of sulfur dioxide per MMBTU actual heat input, when burning natural gas.
		0.21 pound of sulfur dioxide per MMBTU actual heat input, when burning No. 2 fuel oil.
		0.14 pound of nitrogen oxides per MMBTU actual heat input, when burning natural gas.
	0.15 pound of nitrogen oxides per MMBTU actual heat input, when burning No. 2 fuel oil.	

2. **Additional Terms and Conditions**
 - (a) The annual emissions of sulfur dioxide from emissions units B001-B003 shall not exceed 0.6 ton based on a rolling, 12-month summation. This rolling summation shall begin upon issuance of this permit. The sulfur dioxide emitted during the first full calendar month after permit issuance shall be added to the sulfur dioxide emission total from the previous 11 months of operation to begin the rolling, 12-month summation.
The annual emissions of nitrogen oxides from emissions units B001-B003 shall not exceed 14.4 tons based on a rolling, 12-month summation. This rolling summation shall begin upon issuance of this permit. The nitrogen oxides emitted during the first full calendar month after permit issuance shall be added to the nitrogen oxides emission total from the previous 11 months of operation to begin the rolling, 12-month summation.

B. Operational Restrictions

1. The maximum annual natural gas usage for emissions units B001-B003 shall not exceed 200 million cubic feet based on a rolling, 12-month summation. This rolling summation shall begin upon issuance of this permit. The natural gas used during the first full calendar month after permit issuance shall be added to the natural gas usage total from the previous 11 months of operation to begin the rolling, 12-month summation.
2. The maximum annual No. 2 fuel oil usage for emissions units B001-B003 shall not exceed 40,000 gallons based on a rolling, 12-month summation. This rolling summation shall begin upon issuance of this permit. The No. 2 fuel oil used during the first full calendar month after permit issuance shall be added to the No. 2 fuel oil usage total from the previous 11 months of operation to begin the rolling, 12-month summation.
3. The quality of the oil burned in this emissions unit 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 0.21 pound sulfur dioxide per MMBTU actual heat input; and
- b. Greater than 138,000 BTU per gallon of oil.

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

- 4. This emissions unit is permitted for the use of natural gas and No. 2 fuel oil. Propane may be used as an alternative fuel in the event of a natural gas curtailment. If propane is used, the permittee shall record the usage amount(s) and add them to the monthly and annual natural gas usage totals. When calculating emissions from the usage amounts, the permittee shall use the emission factors for natural gas, as if natural gas had been used during these periods. No other fuels shall be used in this emissions unit.
- 5. The permittee operates three natural gas/No. 2 fuel oil boilers identified by Ohio EPA IDs 1431071268 B001, B002, and B003. B001 and B002 each have a maximum rated capacity of 27.5 MMBTU/hr. B003 has a maximum rated capacity of 55 MMBTU/hr.

C. Monitoring and/or Record Keeping Requirements

- 1. 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 this emissions unit. 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, equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.
- 2. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content, heat content, and the calculated SO₂ emission rate in lb/MMBTU.
- 3. The permittee shall maintain monthly records of the following information for emissions unit B001, B002, and B003 combined:
 - a. the total amount of natural gas and propane burned, in cubic feet;
 - b. the rolling, 12-month summation of the natural gas and propane usage, in cubic feet;
 - c. the total amount of No. 2 fuel oil burned, in gallons;
 - d. the rolling, 12-month summation of the No. 2 fuel oil usage, in gallons;
 - e. the calculated emission rate of sulfur dioxide, in tons;
 - f. the rolling, 12-month summation of the sulfur dioxide emission rates, in tons;
 - g. the calculated emission rate of nitrogen oxides, in tons; and
 - h. the rolling, 12-month summation of the nitrogen oxides emission rates, in tons.

D. Reporting Requirements

- 1. The permittee shall notify the Director (the appropriate District Office or local air agency) of any deviation of the No. 2 fuel oil specifications required in section B.3. of the terms and conditions above. The notification shall include a copy of the results of the fuel analyses and shall be sent to the Director (the appropriate District Office or local air agency) within 30 days after the exceedance occurs.
- 2. The permittee shall submit deviation (excursion) reports which identify all exceedances of:
 - a. the rolling, 12-month, natural gas usage limitation;
 - b. the rolling, 12-month, No. 2 fuel oil usage limitation;
 - c. the rolling, 12-month, sulfur dioxide limitation; and
 - d. the rolling, 12-month, nitrogen oxides limitation.

Each report shall be in writing and shall be sent to the Director (the appropriate District Office or local air agency) within 30 days after the exceedance occurs.

- 3. The permittee shall also submit annual reports which specify (a) the total natural gas usage, (b) the total No. 2 fuel oil usage, (c) the sulfur dioxide emissions, and (d) the nitrogen oxides emissions for emissions units B001, B002, and B003 combined for the previous calendar year. These reports shall be submitted by January 31 of each year.

E. Testing Requirements

- 1. Compliance with the particulate emission limitation in OAC 3745-17-10(B)(1) shall be demonstrated as follows:
 - a. For use of natural gas;

$$0.0275 \text{ MMCF/hr (Max hourly gas burning capacity of emissions unit)} \times 13.7 \text{ LBS PM/MMCF (AP-42 Natural Gas Combustion EF)} / 27.5 \text{ MMBTU/hr (Max hourly heat input capacity of emissions unit)} = \text{LB PM/MMBTU}$$
 - b. For use of No. 2 fuel oil;

$$0.194 \text{ Kgal/hr (Max hourly oil burning capacity of emissions unit)} \times 2.0 \text{ LBS PM/Kgal (AP-42 Fuel Oil Combustion EF)} / 27.5 \text{ MMBTU/hr (Max hourly heat input capacity of emissions unit)} = \text{LB PM/MMBTU}$$
- 2. Compliance with the visible particulate emission limitations in OAC 3745-17-07(A) shall be demonstrated by the methods outlined in OAC Rule 3745-17-03(B)(1).
- 3. Compliance with the LB SO₂/MMBTU emission limitation when burning natural gas shall be demonstrated as follows:

$$0.0275 \text{ MMCF/hr (Max hourly gas burning capacity of emissions unit)} \times 0.6 \text{ LB SO}_2\text{/MMCF (AP-42 EF)} / 27.5 \text{ MMBTU/hr (Max hourly heat input capacity of emissions unit)} = \text{LB SO}_2\text{/MMBTU}$$

If testing is required to determine compliance with this allowable emission limitation then, testing shall be conducted using the following method: USEPA Reference Method 6, of 40 CFR Part 60, Appendix A.

4. Compliance with the LB SO₂/MMBTU emission limitation when burning No. 2 fuel oil shall be based upon the record keeping and analysis requirements specified in term and conditions C.1. and C.2. of this permit, and the use of the equation in OAC rule 3745-18-04(F)(2) as follows:

$$(1 \times 10^6 \text{ BTU/MMBTU} / \text{Heat Content of Oil in BTU/Gal}) \times \text{Density of Oil in LBS/Gal} \times \text{Sulfur Content of Oil (Percentage/100)} \times 1.974 = \text{LBS SO}_2/\text{MMBTU}$$

5. Compliance with the LB NO_x/MMBTU emission limitation when burning natural gas shall be demonstrated as follows:

$$0.0275 \text{ MMCF/hr (Max hourly gas burning capacity of emissions unit)} \times 140 \text{ LBS NO}_x/\text{MMCF (AP-42 EF)} / 27.5 \text{ MMBTU/hr (Max hourly heat input capacity of emissions unit)} = \text{LB NO}_x/\text{MMBTU}$$

If testing is required to determine compliance with this allowable emission limitation then, testing shall be conducted using the following method: USEPA Reference Method 7 or 7A (as appropriate), of 40 CFR Part 60, Appendix A.

6. Compliance with the LB NO_x/MMBTU emission limitation when burning No. 2 fuel oil shall be demonstrated as follows:

$$0.194 \text{ Kgal/hr (Max hourly oil burning capacity of emissions unit)} \times 20 \text{ LBS NO}_x/\text{Kgal (AP-42 Fuel Oil Combustion EF)} / 27.5 \text{ MMBTU/hr (Max hourly heat input capacity of emissions unit)} = \text{LB NO}_x/\text{MMBTU}$$

If testing is required to determine compliance with this allowable emission limitation then, testing shall be conducted using the following method: USEPA Reference Method 7 or 7A (as appropriate), of 40 CFR Part 60, Appendix A.

7. Compliance with the annual sulfur dioxide emission limitation shall be demonstrated as follows:

$$[(\text{Rolling, 12-month summation of natural gas usage in million cubic feet} \times 0.6 \text{ LB SO}_2/\text{MMCF (AP-42 EF)}) + (\text{Rolling, 12-month summation of No. 2 fuel oil usage in Kgals} \times 28.8 \text{ LBS/Kgal (AP-42 EF)})] / 2000 \text{ LBS/Ton} = \text{Tons SO}_2/\text{Year}$$

8. Compliance with the annual NO_x emission limitation shall be demonstrated as follows:

$$[(\text{Rolling, 12-month summation of natural gas usage in million cubic feet} \times 140 \text{ LBS NO}_x/\text{MMCF (AP-42 EF)}) + (\text{Rolling, 12-month summation of No. 2 fuel oil usage in Kgals} \times 20 \text{ LBS NO}_x/\text{Kgal (AP-42 EF)})] / 2000 \text{ LBS/Ton} = \text{Tons NO}_x/\text{Year}$$

9. Compliance with the natural gas and No. 2 fuel oil usage limitations in sections B.1. and B.2. shall be demonstrated by the records required in section C.3. of these terms and conditions.

F. Miscellaneous Requirements

1. The terms and conditions in sections A through F of this permit are federally enforceable, pursuant to OAC rule 3745-35-07.

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Facility ID: 1431071268 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>
27.5 MMBtu/hr Natural gas/No. 2 oil fired boiler.	OAC 3745-17-10(B)(1)	0.020 pound of particulate emissions per MMBTU actual heat input.

OAC 3745-17-07(A)

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

0.0006 pound of sulfur dioxide per MMBTU actual heat input, when burning natural gas.

OAC 3745-35-07

0.21 pound of sulfur dioxide per MMBTU actual heat input, when burning No. 2 fuel oil.

0.14 pound of nitrogen oxides per MMBTU actual heat input, when burning natural gas.

0.15 pound of nitrogen oxides per MMBTU actual heat input, when burning No. 2 fuel oil.

2. Additional Terms and Conditions

- (a) The annual emissions of sulfur dioxide from emissions units B001-B003 shall not exceed 0.6 ton based on a rolling, 12-month summation. This rolling summation shall begin upon issuance of this permit. The sulfur dioxide emitted during the first full calendar month after permit issuance shall be added to the sulfur dioxide emission total from the previous 11 months of operation to begin the rolling, 12-month summation.
- The annual emissions of nitrogen oxides from emissions units B001-B003 shall not exceed 14.4 tons based on a rolling, 12-month summation. This rolling summation shall begin upon issuance of this permit. The nitrogen oxides emitted during the first full calendar month after permit issuance shall be added to the nitrogen oxides emission total from the previous 11 months of operation to begin the rolling, 12-month summation.

B. Operational Restrictions

1. The maximum annual natural gas usage for emissions units B001-B003 shall not exceed 200 million cubic feet based on a rolling, 12-month summation. This rolling summation shall begin upon issuance of this permit. The natural gas used during the first full calendar month after permit issuance shall be added to the natural gas usage total from the previous 11 months of operation to begin the rolling, 12-month summation.
2. The maximum annual No. 2 fuel oil usage for emissions units B001-B003 shall not exceed 40,000 gallons based on a rolling, 12-month summation. This rolling summation shall begin upon issuance of this permit. The No. 2 fuel oil used during the first full calendar month after permit issuance shall be added to the No. 2 fuel oil usage total from the previous 11 months of operation to begin the rolling, 12-month summation.
3. The quality of the oil burned in this emissions unit 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 0.21 pound sulfur dioxide per MMBTU actual heat input; and
 - b. Greater than 138,000 BTU per gallon of oil.

Compliance with the above-mentioned specifications shall be determined using the analytical results provided by the permittee or oil supplier for each shipment of oil.
4. This emissions unit is permitted for the use of natural gas and No. 2 fuel oil. Propane may be used as an alternative fuel in the event of a natural gas curtailment. If propane is used, the permittee shall record the usage amount(s) and add them to the monthly and annual natural gas usage totals. When calculating emissions from the usage amounts, the permittee shall use the emission factors for natural gas, as if natural gas had been used during these periods. No other fuels shall be used in this emissions unit.
5. The permittee operates three natural gas/No. 2 fuel oil boilers identified by Ohio EPA IDs 1431071268 B001, B002, and B003. B001 and B002 each have a maximum rated capacity of 27.5 MMBTU/hr. B003 has a maximum rated capacity of 55 MMBTU/hr.

C. Monitoring and/or Record Keeping Requirements

1. 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 this emissions unit. 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, equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.
2. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content, heat content, and the calculated SO₂ emission rate in lb/MMBTU.
3. The permittee shall maintain monthly records of the following information for emissions unit B001, B002, and B003 combined:
 - a. the total amount of natural gas and propane burned, in cubic feet;
 - b. the rolling, 12-month summation of the natural gas and propane usage, in cubic feet;
 - c. the total amount of No. 2 fuel oil burned, in gallons;
 - d. the rolling, 12-month summation of the No. 2 fuel oil usage, in gallons;
 - e. the calculated emission rate of sulfur dioxide, in tons;
 - f. the rolling, 12-month summation of the sulfur dioxide emission rates, in tons;
 - g. the calculated emission rate of nitrogen oxides, in tons; and
 - h. the rolling, 12-month summation of the nitrogen oxides emission rates, in tons.

D. Reporting Requirements

1. The permittee shall notify the Director (the appropriate District Office or local air agency) of any deviation of the No. 2 fuel oil specifications required in section B.3. of the terms and conditions above. The notification shall include a copy of the results of the fuel analyses and shall be sent to the Director (the appropriate District Office or local air agency) within 30 days after the exceedance occurs.
2. The permittee shall submit deviation (excursion) reports which identify all exceedances of:
 - a. the rolling, 12-month, natural gas usage limitation;
 - b. the rolling, 12-month, No. 2 fuel oil usage limitation;
 - c. the rolling, 12-month, sulfur dioxide limitation; and
 - d. the rolling, 12-month, nitrogen oxides limitation.

Each report shall be in writing and shall be sent to the Director (the appropriate District Office or local air agency) within 30 days after the exceedance occurs.
3. The permittee shall also submit annual reports which specify (a) the total natural gas usage, (b) the total No. 2 fuel oil usage, (c) the sulfur dioxide emissions, and (d) the nitrogen oxides emissions for emissions units B001, B002, and B003 combined for the previous calendar year. These reports shall be submitted by January 31 of each year.

E. Testing Requirements

1. Compliance with the particulate emission limitation in OAC 3745-17-10(B)(1) shall be demonstrated as follows:
 - a. For use of natural gas;

$$0.0275 \text{ MMCF/hr (Max hourly gas burning capacity of emissions unit)} \times 13.7 \text{ LBS PM/MMCF (AP-42 Natural Gas Combustion EF)} / 27.5 \text{ MMBTU/hr (Max hourly heat input capacity of emissions unit)} = \text{LB PM/MMBTU}$$
 - b. For use of No. 2 fuel oil;

$$0.194 \text{ Kgal/hr (Max hourly oil burning capacity of emissions unit)} \times 2.0 \text{ LBS PM/Kgal (AP-42 Fuel Oil Combustion EF)} / 27.5 \text{ MMBTU/hr (Max hourly heat input capacity of emissions unit)} = \text{LB PM/MMBTU}$$
2. Compliance with the visible particulate emission limitations in OAC 3745-17-07(A) shall be demonstrated by the methods outlined in OAC Rule 3745-17-03(B)(1).
3. Compliance with the LB SO₂/MMBTU emission limitation when burning natural gas shall be demonstrated as follows:

$$0.0275 \text{ MMCF/hr (Max hourly gas burning capacity of emissions unit)} \times 0.6 \text{ LB SO}_2\text{/MMCF (AP-42 EF)} / 27.5 \text{ MMBTU/hr (Max hourly heat input capacity of emissions unit)} = \text{LB SO}_2\text{/MMBTU}$$

If testing is required to determine compliance with this allowable emission limitation then, testing shall be conducted using the following method: USEPA Reference Method 6, of 40 CFR Part 60, Appendix A.
4. Compliance with the LB SO₂/MMBTU emission limitation when burning No. 2 fuel oil shall be based upon the record keeping and analysis requirements specified in term and conditions C.1. and C.2. of this permit, and the use of the equation in OAC rule 3745-18-04(F)(2) as follows:

$$(1 \times 10^6 \text{ BTU/MMBTU} / \text{Heat Content of Oil in BTU/Gal}) \times \text{Density of Oil in LBS/Gal} \times \text{Sulfur Content of Oil (Percentage/100)} \times 1.974 = \text{LBS SO}_2\text{/MMBTU}$$
5. Compliance with the LB NO_x/MMBTU emission limitation when burning natural gas shall be demonstrated as follows:

$$0.0275 \text{ MMCF/hr (Max hourly gas burning capacity of emissions unit)} \times 140 \text{ LBS NO}_x\text{/MMCF (AP-42 EF)} / 27.5 \text{ MMBTU/hr (Max hourly heat input capacity of emissions unit)} = \text{LB NO}_x\text{/MMBTU}$$

If testing is required to determine compliance with this allowable emission limitation then, testing shall be conducted using the following method: USEPA Reference Method 7 or 7A (as appropriate), of 40 CFR Part 60, Appendix A.
6. Compliance with the LB NO_x/MMBTU emission limitation when burning No. 2 fuel oil shall be demonstrated as follows:

$$0.194 \text{ Kgal/hr (Max hourly oil burning capacity of emissions unit)} \times 20 \text{ LBS NO}_x\text{/Kgal (AP-42 Fuel Oil Combustion EF)} / 27.5 \text{ MMBTU/hr (Max hourly heat input capacity of emissions unit)} = \text{LB NO}_x\text{/MMBTU}$$

If testing is required to determine compliance with this allowable emission limitation then, testing shall be conducted using the following method: USEPA Reference Method 7 or 7A (as appropriate), of 40 CFR Part 60, Appendix A.
7. Compliance with the annual sulfur dioxide emission limitation shall be demonstrated as follows:

$$[(\text{Rolling, 12-month summation of natural gas usage in million cubic feet} \times 0.6 \text{ LB SO}_2\text{/MMCF (AP-42 EF)}) + (\text{Rolling, 12-month summation of No. 2 fuel oil usage in Kgals} \times 28.8 \text{ LBS/Kgal (AP-42 EF)})] / 2000 \text{ LBS/Ton} = \text{Tons SO}_2\text{/Year}$$
8. Compliance with the annual NO_x emission limitation shall be demonstrated as follows:

$$[(\text{Rolling, 12-month summation of natural gas usage in million cubic feet} \times 140 \text{ LBS NO}_x\text{/MMCF (AP-42 EF)}) + (\text{Rolling, 12-month summation of No. 2 fuel oil usage in Kgals} \times 20 \text{ LBS NO}_x\text{/Kgal (AP-42 EF)})] / 2000 \text{ LBS/Ton} = \text{Tons NO}_x\text{/Year}$$

- 9. Compliance with the natural gas and No. 2 fuel oil usage limitations in sections B.1. and B.2. shall be demonstrated by the records required in section C.3. of these terms and conditions.

F. Miscellaneous Requirements

- 1. The terms and conditions in sections A through F of this permit are federally enforceable, pursuant to OAC rule 3745-35-07.

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Facility ID: 1431071268 Emissions Unit ID: B003 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>
55 MMBtu/hr. Natural gas/No. 2 fuel oil fired boiler.	OAC 3745-17-10(B)(1)	0.020 pound of particulate emissions per MMBTU actual heat input.
	OAC 3745-17-07(A)	Visible particulate emissions from the boiler stack shall not exceed 20 percent opacity, as a six-minute average, except as specified as rule.
	OAC 3745-35-07	0.0006 pound of sulfur dioxide per MMBTU actual heat input, when burning natural gas.
		0.21 pound of sulfur dioxide per MMBTU actual heat input, when burning No. 2 fuel oil.
		0.14 pound of nitrogen oxides per MMBTU actual heat input, when burning natural gas.
	0.15 pound of nitrogen oxides per MMBTU actual heat input, when burning No. 2 fuel oil.	

2. Additional Terms and Conditions

- (a) The annual emissions of sulfur dioxide from emissions units B001-B003 shall not exceed 0.6 ton based on a rolling, 12-month summation. This rolling summation shall begin upon issuance of this permit. The sulfur dioxide emitted during the first full calendar month after permit issuance shall be added to the sulfur dioxide emission total from the previous 11 months of operation to begin the rolling, 12-month summation.
 The annual emissions of nitrogen oxides from emissions units B001-B003 shall not exceed 14.4 tons based on a rolling, 12-month summation. This rolling summation shall begin upon issuance of this permit. The nitrogen oxides emitted during the first full calendar month after permit issuance shall be added to the nitrogen oxides emission total from the previous 11 months of operation to begin the rolling, 12-month summation.

B. Operational Restrictions

- 1. The maximum annual natural gas usage for emissions units B001-B003 shall not exceed 200 million cubic feet based on a rolling, 12-month summation. This rolling summation shall begin upon issuance of this permit. The natural gas used during the first full calendar month after permit issuance shall be added to the natural gas usage total from the previous 11 months of operation to begin the rolling, 12-month summation.
- 2. The maximum annual No. 2 fuel oil usage for emissions units B001-B003 shall not exceed 40,000 gallons based on a rolling, 12-month summation. This rolling summation shall begin upon issuance of this permit. The No. 2 fuel oil used during the first full calendar month after permit issuance shall be added to the No. 2 fuel oil usage total from the previous 11 months of operation to begin the rolling, 12-month summation.

3. The quality of the oil burned in this emissions unit 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 0.21 pound sulfur dioxide per MMBTU actual heat input; and
 - b. Greater than 138,000 BTU per gallon of oil.

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

4. This emissions unit is permitted for the use of natural gas and No. 2 fuel oil. Propane may be used as an alternative fuel in the event of a natural gas curtailment. If propane is used, the permittee shall record the usage amount(s) and add them to the monthly and annual natural gas usage totals. When calculating emissions from the usage amounts, the permittee shall use the emission factors for natural gas, as if natural gas had been used during these periods. No other fuels shall be used in this emissions unit.
5. The permittee operates three natural gas/No. 2 fuel oil boilers identified by Ohio EPA IDs 1431071268 B001, B002, and B003. B001 and B002 each have a maximum rated capacity of 27.5 MMBTU/hr. B003 has a maximum rated capacity of 55 MMBTU/hr.

C. Monitoring and/or Record Keeping Requirements

1. 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 this emissions unit. 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, equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.
2. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content, heat content, and the calculated SO₂ emission rate in lb/MMBTU.
3. The permittee shall maintain monthly records of the following information for emissions unit B001, B002, and B003 combined:
 - a. the total amount of natural gas and propane burned, in cubic feet;
 - b. the rolling, 12-month summation of the natural gas and propane usage, in cubic feet;
 - c. the total amount of No. 2 fuel oil burned, in gallons;
 - d. the rolling, 12-month summation of the No. 2 fuel oil usage, in gallons;
 - e. the calculated emission rate of sulfur dioxide, in tons;
 - f. the rolling, 12-month summation of the sulfur dioxide emission rates, in tons;
 - g. the calculated emission rate of nitrogen oxides, in tons; and
 - h. the rolling, 12-month summation of the nitrogen oxides emission rates, in tons.

D. Reporting Requirements

1. The permittee shall notify the Director (the appropriate District Office or local air agency) of any deviation of the No. 2 fuel oil specifications required in section B.3. of the terms and conditions above. The notification shall include a copy of the results of the fuel analyses and shall be sent to the Director (the appropriate District Office or local air agency) within 30 days after the exceedance occurs.
2. The permittee shall submit deviation (excursion) reports which identify all exceedances of:
 - a. the rolling, 12-month, natural gas usage limitation;
 - b. the rolling, 12-month, No. 2 fuel oil usage limitation;
 - c. the rolling, 12-month, sulfur dioxide limitation; and
 - d. the rolling, 12-month, nitrogen oxides limitation.

Each report shall be in writing and shall be sent to the Director (the appropriate District Office or local air agency) within 30 days after the exceedance occurs.

3. The permittee shall also submit annual reports which specify (a) the total natural gas usage, (b) the total No. 2 fuel oil usage, (c) the sulfur dioxide emissions, and (d) the nitrogen oxides emissions for emissions units B001, B002, and B003 combined for the previous calendar year. These reports shall be submitted by January 31 of each year.

E. Testing Requirements

1. Compliance with the particulate emission limitation in OAC 3745-17-10(B)(1) shall be demonstrated as follows:
 - a. For use of natural gas;

$$0.055 \text{ MMCF/hr (Max hourly gas burning capacity of emissions unit)} \times 13.7 \text{ LBS PM/MMCF (AP-42 Natural Gas Combustion EF)} / 55 \text{ MMBTU/hr (Max hourly heat input capacity of emissions unit)} = \text{LB PM/MMBTU}$$
 - b. For use of No. 2 fuel oil;

$$0.388 \text{ Kgal/hr (Max hourly oil burning capacity of emissions unit)} \times 2.0 \text{ LBS PM/Kgal (AP-42 Fuel Oil Combustion EF)} / 55 \text{ MMBTU/hr (Max hourly heat input capacity of emissions unit)} = \text{LB PM/MMBTU}$$
2. Compliance with the visible particulate emission limitations in OAC 3745-17-07(A) shall be demonstrated by the methods outlined in OAC Rule 3745-17-03(B)(1).
3. Compliance with the LB SO₂/MMBTU emission limitation when burning natural gas shall be demonstrated as follows:

$$0.055 \text{ MMCF/hr (Max hourly gas burning capacity of emissions unit)} \times 0.6 \text{ LB SO}_2\text{/MMCF (AP-42 EF)} / 55$$

MMBTU/hr (Max hourly heat input capacity of emissions unit) = LB SO₂/MMBTU

If testing is required to determine compliance with this allowable emission limitation then, testing shall be conducted using the following method: USEPA Reference Method 6, of 40 CFR Part 60, Appendix A.

4. Compliance with the LB SO₂/MMBTU emission limitation when burning No. 2 fuel oil shall be based upon the record keeping and analysis requirements specified in term and conditions C.1. and C.2. of this permit, and the use of the equation in OAC rule 3745-18-04(F)(2) as follows:

$(1 \times 10^6 \text{ BTU/MMBTU} / \text{Heat Content of Oil in BTU/Gallon}) \times \text{Density of Oil in LBS/Gallon} \times \text{Sulfur Content of Oil (Percentage/100)} \times 1.974 = \text{LBS SO}_2/\text{MMBTU}$

5. Compliance with the LB NO_x/MMBTU emission limitation when burning natural gas shall be demonstrated as follows:

$0.055 \text{ MMCF/hr (Max hourly gas burning capacity of emissions unit)} \times 140 \text{ LBS NO}_x/\text{MMCF (AP-42 EF)} / 55 \text{ MMBTU/hr (Max hourly heat input capacity of emissions unit)} = \text{LB NO}_x/\text{MMBTU}$

If testing is required to determine compliance with this allowable emission limitation then, testing shall be conducted using the following method: USEPA Reference Method 7 or 7A (as appropriate), of 40 CFR Part 60, Appendix A.

6. Compliance with the LB NO_x/MMBTU emission limitation when burning No. 2 fuel oil shall be demonstrated as follows:

$0.388 \text{ Kgal/hr (Max hourly oil burning capacity of emissions unit)} \times 20 \text{ LBS NO}_x/\text{Kgal (AP-42 Fuel Oil Combustion EF)} / 55 \text{ MMBTU/hr (Max hourly heat input capacity of emissions unit)} = \text{LB NO}_x/\text{MMBTU}$

If testing is required to determine compliance with this allowable emission limitation then, testing shall be conducted using the following method: USEPA Reference Method 7 or 7A (as appropriate), of 40 CFR Part 60, Appendix A.

7. Compliance with the annual sulfur dioxide emission limitation shall be demonstrated as follows:

$[(\text{Rolling, 12-month summation of natural gas usage in million cubic feet} \times 0.6 \text{ LB SO}_2/\text{MMCF (AP-42 EF)}) + (\text{Rolling, 12-month summation of No. 2 fuel oil usage in Kgals} \times 28.8 \text{ LBS/Kgal (AP-42 EF)})] / 2000 \text{ LBS/Ton} = \text{Tons SO}_2/\text{Year}$

8. Compliance with the annual NO_x emission limitation shall be demonstrated as follows:

$[(\text{Rolling, 12-month summation of natural gas usage in million cubic feet} \times 140 \text{ LBS NO}_x/\text{MMCF (AP-42 EF)}) + (\text{Rolling, 12-month summation of No. 2 fuel oil usage in Kgals} \times 20 \text{ LBS NO}_x/\text{Kgal (AP-42 EF)})] / 2000 \text{ LBS/Ton} = \text{Tons NO}_x/\text{Year}$

9. Compliance with the natural gas and No. 2 fuel oil usage limitations in sections B.1. and B.2. shall be demonstrated by the records required in section C.3. of these terms and conditions.

F. Miscellaneous Requirements

1. The terms and conditions in sections A through F of this permit are federally enforceable, pursuant to OAC rule 3745-35-07.