

Facility ID: 0819180235 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 B001](#)
- [Go to Part II for Emissions Unit B002](#)
- [Go to Part II for Emissions Unit B003](#)

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Facility ID: 0819180235 Emissions Unit ID: B001 Issuance type: Final 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>
B001 - 20.02 mmBTU/hr diesel-fired electric generator, No.1 (2628 brake horsepower)	OAC rule 3745-31-05(A)(3) PTI 08-03963	The emissions for the following pollutants shall not exceed: for nitrogen oxides (NOx), 41.1 lbs/hour; for organic compounds (OC), 1.54 lbs/hour; for carbon monoxide (CO), 2.57 lbs/hour; for sulfur dioxide (SO2), 0.051 lb /mmBtu actual heat input; and for particulate emissions, 0.062 lbs/mmBTU.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1), OAC rule 3745-35-07(B), and 3745-17-11(B)(5)(b).  The emissions for the following pollutants shall not exceed: for nitrogen oxides (NOx), 24.62 TPY; for organic compounds (OC), 0.93 TPY; for carbon monoxide (CO), 1.54TPY; for sulfur dioxide (SO2), 0.61 TPY; and for particulate emissions 0.74 TPY.
	OAC rule 3745-35-07(B) Synthetic Minor to avoid TV permitting requirements.	The above tons/year limitations are rolling, 12-month summations.
	OAC rule 3745-17-11(B)(5)(b)	The annual fuel usage rate shall not exceed 171,600 gallons as a rolling 12-month summation. The particulate emissions limit shall not exceed 0.062 lbs/mmBTU.
	OAC rule 3745-18-06(G)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The opacity shall not exceed 20% visible particulate emissions, as a six-minute average, except as provided by rule.
		See section A.2.b and c.
	OAC rule 3745-21-08(B) OAC rule 3745-23-06(B)	

**2. Additional Terms and Conditions**

- (a) The hourly emission rates the following pollutants 41.1 lbs/hour nitrogen oxides, 1.54 lbs/hour organic compounds, and 2.57 lbs/hour carbon monoxide, were established for PTI purposes to reflect the

potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limit.

The design of the emissions unit and the technology associated with the current operating practices will satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08.

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. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions 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.

The design of the emissions unit and the technology associated with the current operating practices will satisfy the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06.

**B. Operational Restrictions**

1. The maximum diesel fuel usage for this emissions unit shall not exceed 171,600 gallons per year based upon a rolling, 12-month summation of the fuel usage. Since this is an existing emissions unit, the applicant has existing fuel usage records and therefore the permit does not need to contain first year monthly fuel usage limitations to limit potential to emit.
2. The quality of oil burned in this emissions unit shall meet a sulfur content that is sufficient to comply with the allowable sulfur dioxide emission limitation specified in section A.1 above.

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

1. The permittee shall maintain monthly records of the following information:
  - a. The number of gallons of diesel fuel burned for the calendar month.
  - b. The number of gallons of diesel fuel burned for the rolling, 12-month summation period .
  - c. The NOx emission rate, in tons.
  - d. The rolling, 12-month summation of the NOx emission rates, in tons.
2. The quality of the oil burned in this emissions unit shall meet a sulfur content that is sufficient to comply with the allowable sulfur dioxide emission limitation specified in Section A.1 above.
3. For each shipment of oil received for burning in this emissions unit, the permittee shall 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.
4. 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 and D4294), or equivalent methods as approved by the Director.
5. 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, and the quality of the oil for those loads 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).)

**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 of the allowable sulfur dioxide emission limitation based upon the calculated sulfur dioxide emission rates from Section C.5 above. 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 45 days after the deviation occurs.
2. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 12-month diesel fuel usage limitation and the rolling, 12-month summation of the NOx emission rates.

The quarterly deviation (excursion) reports shall be submitted to the Director (RAPCA) by January 31, April 30,

July 31 and October 31 of each year and shall cover the previous calendar quarter. If no deviation occurred during a calendar quarter, the permittee shall submit a report which states that no deviation occurred during the calendar quarter.

3. The permittee shall also submit annual reports to RAPCA which specify the total nitrogen oxide emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

**E. Testing Requirements**

1. Compliance with the emissions limitation(s) in Section A.1. of these terms and conditions shall be determined in accordance with the following method(s):

Emission Limitation -  
0.062 lb particulate/mmBtu actual heat input

Applicable Compliance Method -  
Compliance shall be based upon the reported manufacturer's emission factor of 0.006 lb particulate/gallon of fuel oil burned, divided by the heat content of the fuel oil of 0.140 mmBTU/gallon. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the  
Emission Limitation -  
0.74TPY particulates

Applicable Compliance Method -  
Compliance shall be based on multiplying the maximum rate of the unit, 20.02 mmBTU/hr times the heat input of 0.062 lbs/mmBTU, pursuant to OAC rule 3745-17-11(B)(5)(b), times the maximum hourly usage of 1200 hrs/yr and divided by 2,000 pounds per ton.  
Emission Limitation -  
41.1 lb/hour nitrogen oxides

Applicable Compliance Method -  
Compliance shall be based upon an emission factor of 0.287 lb nitrogen oxides/gallon of fuel oil burned, statistically analyzed data taken from 15 stack tested units, multiplied by the maximum hourly fuel burning capacity of 143 gallons/hour for this emissions unit.  
Emission Limitation -  
24.62 TPY nitrogen oxides, as a rolling, 12-month summation

Applicable Compliance Method -  
Compliance shall be based upon record keeping as specified in C.1 and shall be determined by multiplying each 12-month summation of the recorded fuel usages by the emission factor of 0.287 lb nitrogen oxides/gallon of fuel oil burned, and dividing by 2,000 pounds per ton.  
Emission Limitation -  
0.051 lb sulfur dioxide/mmBtu actual heat input

Applicable Compliance Method -  
Compliance shall be based upon the record keeping and analysis requirements specified in C.3. Compliance shall be based upon the following equation.

$(143 \text{ gallons fuel/hour})(7.10 \text{ lbs fuel/gallon})(0.0005 \text{ lbs S/ 1 lb fuel})(32 \text{ lbs/ mol SO}_2/16 \text{ lb/ mol S}) = 1.02 \text{ lbs/hr SO}_2$   
 $(1.02 \text{ lbs SO}_2/\text{hr})(\text{hr}/143 \text{ gallons})(\text{gallons}/0.140 \text{ mmBTU}) = 0.0509 \text{ lbs SO}_2/\text{mm}/\text{BTU}$   
Emission Limitation -  
0.61 TPY sulfur dioxide

Applicable Compliance Method -  
Compliance shall be based upon record keeping as specified in C.1 and shall be the sum of the 12 monthly diesel fuel usage records for the calendar year multiplied by the manufacturer's emission factor of 0.007 lb sulfur dioxide/gallon of fuel oil burned, divided by 2,000 pounds per ton.  
Emission Limitation -  
2.57 lbs/hour carbon monoxide

Applicable Compliance Method -  
Compliance shall be based upon an emission factor of 0.018 lb carbon monoxide/gallon of fuel oil burned, statistically analyzed data taken from 15 stack tested units, multiplied by the maximum hourly fuel burning capacity of 143 gallons/hour for this emissions unit.  
Emission Limitation -  
1.54 TPY carbon monoxide

Applicable Compliance Method -  
Compliance shall be based upon record keeping as specified in C.1 and shall be the sum of the 12 monthly diesel fuel usage records for the calendar year multiplied by an emission factor of 0.018 lb carbon monoxide/gallon of fuel oil burned, divided by 2,000 pounds per ton.  
Emission Limitation -  
1.54 lbs/hour organic compounds

Applicable Compliance Method -  
Compliance shall be based upon an emission factor of 0.0108 lb organic compounds/gallon of fuel oil burned, statistically analyzed data taken from 15 stack tested units, multiplied by the maximum hourly fuel burning capacity of 143 gallons/hour for this emissions unit.  
Emission Limitation -  
0.93 TPY organic compounds

Applicable Compliance Method -  
Compliance shall be based upon record keeping as specified in C.1 and shall be the sum of the 12 monthly diesel fuel usage records for the calendar year multiplied by an emission factor of 0.0108 lb organic compounds/gallon of fuel oil burned and divided by 2,000 pounds per ton.  
Emission Limitation -  
20% opacity visible emissions, as a six-minute average

Applicable Compliance Method -

If required, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in USEPA Reference Method 9.

Operational Limitation -

171,600 gal/year fuel usage as a rolling 12-month summation

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in C.1.

F. **Miscellaneous Requirements**

1. None

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Facility ID: 0819180235 Emissions Unit ID: B002 Issuance type: Final 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>
B002 - 20.02 mmBTU/hr diesel-fired electric generator, No.2 (2628 brake horsepower)	OAC rule 3745-31-05(A)(3) PTI 08-03963	The emissions for the following pollutants shall not exceed: for nitrogen oxides (NOx), 41.1 lbs/hour; for organic compounds (OC), 1.54 lbs/hour; for carbon monoxide (CO), 2.57 lbs/hour; for sulfur dioxide (SO2), 0.051 lb /mmBtu actual heat input; and for particulate emissions, 0.062 lbs/mmBTU.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1), OAC rule 3745-35-07(B), and 3745-17-11(B)(5)(b).
	OAC rule 3745-35-07(B) Synthetic Minor to avoid TV permitting requirements.	The above tons/year limitations are rolling, 12-month summations.
	OAC rule 3745-17-11(B)(5)(b)	The annual fuel usage rate shall not exceed 171,600 gallons as a rolling 12-month summation. The particulate emissions limit shall not exceed 0.062 lbs/mmBTU.
	OAC rule 3745-18-06(G)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	The opacity shall not exceed 20% visible particulate emissions, as a six-minute average, except as provided by rule.  See section A.2.b and c.

OAC rule 3745-21-08(B)  
OAC rule 3745-23-06(B)

**2. Additional Terms and Conditions**

- (a) The hourly emission rates the following pollutants 41.1 lbs/hour nitrogen oxides, 1.54 lbs/hour organic compounds, and 2.57 lbs/hour carbon monoxide, were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limit.  
The design of the emissions unit and the technology associated with the current operating practices will satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08.

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. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions 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.

The design of the emissions unit and the technology associated with the current operating practices will satisfy the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06.

**B. Operational Restrictions**

1. The maximum diesel fuel usage for this emissions unit shall not exceed 171,600 gallons per year based upon a rolling, 12-month summation of the fuel usage. Since this is an existing emissions unit, the applicant has existing fuel usage records and therefore the permit does not need to contain first year monthly fuel usage limitations to limit potential to emit.
2. The quality of oil burned in this emissions unit shall meet a sulfur content that is sufficient to comply with the allowable sulfur dioxide emission limitation specified in section A.1 above.

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

1. The permittee shall maintain monthly records of the following information:
  - a. The number of gallons of diesel fuel burned for the calendar month.
  - b. The number of gallons of diesel fuel burned for the rolling, 12-month summation period .
  - c. The NOx emission rate, in tons.
  - d. The rolling, 12-month summation of the NOx emission rates, in tons.
2. The quality of the oil burned in this emissions unit shall meet a sulfur content that is sufficient to comply with the allowable sulfur dioxide emission limitation specified in Section A.1 above.
3. For each shipment of oil received for burning in this emissions unit, the permittee shall 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.
4. 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 and D4294), or equivalent methods as approved by the Director.
5. 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, and the quality of the oil for those loads 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).)

**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 of the allowable sulfur dioxide emission limitation based upon the calculated sulfur

dioxide emission rates from Section C.5 above. 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 45 days after the deviation occurs.

2. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 12-month diesel fuel usage limitation and the rolling, 12-month summation of the NOx emission rates.

The quarterly deviation (excursion) reports shall be submitted to the Director (RAPCA) by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarter. If no deviation occurred during a calendar quarter, the permittee shall submit a report which states that no deviation occurred during the calendar quarter.

3. The permittee shall also submit annual reports to RAPCA which specify the total nitrogen oxide emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

**E. Testing Requirements**

1. Compliance with the emissions limitation(s) in Section A.1. of these terms and conditions shall be determined in accordance with the following method(s):

Emission Limitation -  
0.062 lb particulate/mmBtu actual heat input

Applicable Compliance Method -

Compliance shall be based upon the reported manufacturer's emission factor of 0.006 lb particulate/gallon of fuel oil burned, divided by the heat content of the fuel oil of 0.140 mmBTU/gallon. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the

Emission Limitation -  
0.74TPY particulates

Applicable Compliance Method -

Compliance shall be based on multiplying the maximum rate of the unit, 20.02 mmBTU/hr times the heat input of 0.062 lbs/mmBTU, pursuant to OAC rule 3745-17-11(B)(5)(b), times the maximum hourly usage of 1200 hrs/yr and divided by 2,000 pounds per ton.

Emission Limitation -  
41.1 lb/hour nitrogen oxides

Applicable Compliance Method -

Compliance shall be based upon an emission factor of 0.287 lb nitrogen oxides/gallon of fuel oil burned, statistically analyzed data taken from 15 stack tested units, multiplied by the maximum hourly fuel burning capacity of 143 gallons/hour for this emissions unit.

Emission Limitation -  
24.62 TPY nitrogen oxides, as a rolling, 12-month summation

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in C.1 and shall be determined by multiplying each 12-month summation of the recorded fuel usages by the emission factor of 0.287 lb nitrogen oxides/gallon of fuel oil burned, and dividing by 2,000 pounds per ton.

Emission Limitation -  
0.051 lb sulfur dioxide/mmBtu actual heat input

Applicable Compliance Method -

Compliance shall be based upon the record keeping and analysis requirements specified in C.3. Compliance shall be based upon the following equation.

$(143 \text{ gallons fuel/hour})(7.10 \text{ lbs fuel/gallon})(0.0005 \text{ lbs S/ 1 lb fuel})(32 \text{ lbs/ mol SO}_2/16 \text{ lb/ mol S}) = 1.02 \text{ lbs/hr SO}_2$ .

$(1.02 \text{ lbs SO}_2/\text{hr})(\text{hr}/143 \text{ gallons})(\text{gallons}/0.140 \text{ mmBTU}) = 0.0509 \text{ lbs SO}_2/\text{mmBTU}$

Emission Limitation -  
0.61 TPY sulfur dioxide

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in C.1 and shall be the sum of the 12 monthly diesel fuel usage records for the calendar year multiplied by the manufacturer's emission factor of 0.007 lb sulfur dioxide/gallon of fuel oil burned, divided by 2,000 pounds per ton.

Emission Limitation -  
2.57 lbs/hour carbon monoxide

Applicable Compliance Method -

Compliance shall be based upon an emission factor of 0.018 lb carbon monoxide/gallon of fuel oil burned, statistically analyzed data taken from 15 stack tested units, multiplied by the maximum hourly fuel burning capacity of 143 gallons/hour for this emissions unit.

Emission Limitation -  
1.54 TPY carbon monoxide

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in C.1 and shall be the sum of the 12 monthly diesel fuel usage records for the calendar year multiplied by an emission factor of 0.018 lb carbon monoxide/gallon of fuel oil burned, divided by 2,000 pounds per ton.

Emission Limitation -  
1.54 lbs/hour organic compounds

Applicable Compliance Method -

Compliance shall be based upon an emission factor of 0.0108 lb organic compounds/gallon of fuel oil burned, statistically analyzed data taken from 15 stack tested units, multiplied by the maximum hourly fuel burning capacity of 143 gallons/hour for this emissions unit.

Emission Limitation -  
0.93 TPY organic compounds

Applicable Compliance Method -  
 Compliance shall be based upon record keeping as specified in C.1 and shall be the sum of the 12 monthly diesel fuel usage records for the calendar year multiplied by an emission factor of 0.0108 lb organic compounds/gallon of fuel oil burned and divided by 2,000 pounds per ton.  
 Emission Limitation -  
 20% opacity visible emissions, as a six-minute average

Applicable Compliance Method -  
 If required, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in USEPA Reference Method 9.  
 Operational Limitation -  
 171,600 gal/year fuel usage as a rolling 12-month summation

Applicable Compliance Method -  
 Compliance shall be based upon record keeping as specified in C.1.

**F. Miscellaneous Requirements**

- 1. None

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**Facility ID: 0819180235 Emissions Unit ID: B003 Issuance type: Final 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>
B003 - 20.02 mmBTU/hr diesel-fired electric generator, No.3 (2628 brake horsepower)	OAC rule 3745-31-05(A)(3) PTI 08-03963	The emissions for the following pollutants shall not exceed: for nitrogen oxides (NOx), 41.1lbs/hour; for organic compounds (OC), 1.54 lbs/hour; for carbon monoxide (CO), 2.57 lbs/hour; for sulfur dioxide (SO2), 0.051 lb /mmBtu actual heat input; and for particulate emissions, 0.062 lbs/mmBTU.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1), OAC rule 3745-35-07(B), and 3745-17-11(B)(5)(b).  The emissions for the following pollutants shall not exceed: for nitrogen oxides (NOx), 24.62 TPY; for organic compounds (OC), 0.93 TPY; for carbon monoxide (CO), 1.54TPY; for sulfur dioxide (SO2), 0.61 TPY; and for particulate emissions 0.74 TPY.
	OAC rule 3745-35-07(B) Synthetic Minor to avoid TV permitting requirements.	The above tons/year limitations are rolling, 12-month summations.
	OAC rule 3745-17-11(B)(5)(b)	The annual fuel usage rate shall not exceed 171,600 gallons as a rolling 12-month summation. The particulate emissions limit shall not exceed 0.062 lbs/mmBTU.
	OAC rule 3745-18-06(G)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

OAC rule 3745-17-07(A)(1)

The opacity shall not exceed 20% visible particulate emissions, as a six-minute average, except as provided by rule.

See section A.2.b and c.

OAC rule 3745-21-08(B)

OAC rule 3745-23-06(B)

**2. Additional Terms and Conditions**

- (a) The hourly emission rates the following pollutants 41.1 lbs/hour nitrogen oxides, 1.54 lbs/hour organic compounds, and 2.57 lbs/hour carbon monoxide, were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limit.  
The design of the emissions unit and the technology associated with the current operating practices will satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08.

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. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions 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.

The design of the emissions unit and the technology associated with the current operating practices will satisfy the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06.

**B. Operational Restrictions**

1. The maximum diesel fuel usage for this emissions unit shall not exceed 171,600 gallons per year based upon a rolling, 12-month summation of the fuel usage. Since this is an existing emissions unit, the applicant has existing fuel usage records and therefore the permit does not need to contain first year monthly fuel usage limitations to limit potential to emit.
2. The quality of oil burned in this emissions unit shall meet a sulfur content that is sufficient to comply with the allowable sulfur dioxide emission limitation specified in section A.1 above.

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

1. The permittee shall maintain monthly records of the following information:
  - a. The number of gallons of diesel fuel burned for the calendar month.
  - b. The number of gallons of diesel fuel burned for the rolling, 12-month summation period .
  - c. The NOx emission rate, in tons.
  - d. The rolling, 12-month summation of the NOx emission rates, in tons.
2. The quality of the oil burned in this emissions unit shall meet a sulfur content that is sufficient to comply with the allowable sulfur dioxide emission limitation specified in Section A.1 above.
3. For each shipment of oil received for burning in this emissions unit, the permittee shall 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.
4. 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 and D4294), or equivalent methods as approved by the Director.
5. 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, and the quality of the oil for those loads 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).)

**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 of the allowable sulfur dioxide emission limitation based upon the calculated sulfur dioxide emission rates from Section C.5 above. 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 45 days after the deviation occurs.
2. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 12-month diesel fuel usage limitation and the rolling, 12-month summation of the NOx emission rates.  
  
The quarterly deviation (excursion) reports shall be submitted to the Director (RAPCA) by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarter. If no deviation occurred during a calendar quarter, the permittee shall submit a report which states that no deviation occurred during the calendar quarter.
3. The permittee shall also submit annual reports to RAPCA which specify the total nitrogen oxide emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

**E. Testing Requirements**

1. Compliance with the emissions limitation(s) in Section A.1. of these terms and conditions shall be determined in accordance with the following method(s):  
Emission Limitation -  
0.062 lb particulate/mmBtu actual heat input  
  
Applicable Compliance Method -  
Compliance shall be based upon the reported manufacturer's emission factor of 0.006 lb particulate/gallon of fuel oil burned, divided by the heat content of the fuel oil of 0.140 mmBTU/gallon. If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the  
Emission Limitation -  
0.74TPY particulates  
  
Applicable Compliance Method -  
Compliance shall be based on multiplying the maximum rate of the unit, 20.02 mmBTU/hr times the heat input of 0.062 lbs/mmBTU, pursuant to OAC rule 3745-17-11(B)(5)(b), times the maximum hourly usage of 1200 hrs/yr and divided by 2,000 pounds per ton.  
Emission Limitation -  
41.1 lb/hour nitrogen oxides  
  
Applicable Compliance Method -  
Compliance shall be based upon an emission factor of 0.287 lb nitrogen oxides/gallon of fuel oil burned, statistically analyzed data taken from 15 stack tested units, multiplied by the maximum hourly fuel burning capacity of 143 gallons/hour for this emissions unit.  
Emission Limitation -  
24.62 TPY nitrogen oxides, as a rolling, 12-month summation  
  
Applicable Compliance Method -  
Compliance shall be based upon record keeping as specified in C.1 and shall be determined by multiplying each 12-month summation of the recorded fuel usages by the emission factor of 0.287 lb nitrogen oxides/gallon of fuel oil burned, and dividing by 2,000 pounds per ton.  
Emission Limitation -  
0.051 lb sulfur dioxide/mmBtu actual heat input  
  
Applicable Compliance Method -  
Compliance shall be based upon the record keeping and analysis requirements specified in C.3. Compliance shall be based upon the following equation.  
  
$$(143 \text{ gallons fuel/hour})(7.10 \text{ lbs fuel/gallon})(0.0005 \text{ lbs S/ 1 lb fuel})(32 \text{ lbs/ mol SO}_2/16 \text{ lb/ mol S}) = 1.02 \text{ lbs/hr SO}_2$$
  
$$(1.02 \text{ lbs SO}_2/\text{hr})(\text{hr}/143 \text{ gallons})(\text{gallons}/0.140 \text{ mmBTU}) = 0.0509 \text{ lbs SO}_2/\text{mmBTU}$$
  
Emission Limitation -  
0.61 TPY sulfur dioxide  
  
Applicable Compliance Method -  
Compliance shall be based upon record keeping as specified in C.1 and shall be the sum of the 12 monthly diesel fuel usage records for the calendar year multiplied by the manufacturer's emission factor of 0.007 lb sulfur dioxide/gallon of fuel oil burned, divided by 2,000 pounds per ton.  
Emission Limitation -  
2.57 lbs/hour carbon monoxide  
  
Applicable Compliance Method -  
Compliance shall be based upon an emission factor of 0.018 lb carbon monoxide/gallon of fuel oil burned, statistically analyzed data taken from 15 stack tested units, multiplied by the maximum hourly fuel burning capacity of 143 gallons/hour for this emissions unit.  
Emission Limitation -  
1.54 TPY carbon monoxide  
  
Applicable Compliance Method -  
Compliance shall be based upon record keeping as specified in C.1 and shall be the sum of the 12 monthly diesel fuel usage records for the calendar year multiplied by an emission factor of 0.018 lb carbon monoxide/gallon of fuel oil burned, divided by 2,000 pounds per ton.  
Emission Limitation -  
1.54 lbs/hour organic compounds

## Applicable Compliance Method -

Compliance shall be based upon an emission factor of 0.0108 lb organic compounds/gallon of fuel oil burned, statistically analyzed data taken from 15 stack tested units, multiplied by the maximum hourly fuel burning capacity of 143 gallons/hour for this emissions unit.

## Emission Limitation -

0.93 TPY organic compounds

## Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in C.1 and shall be the sum of the 12 monthly diesel fuel usage records for the calendar year multiplied by an emission factor of 0.0108 lb organic compounds/gallon of fuel oil burned and divided by 2,000 pounds per ton.

## Emission Limitation -

20% opacity visible emissions, as a six-minute average

## Applicable Compliance Method -

If required, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in USEPA Reference Method 9.

## Operational Limitation -

171,600 gal/year fuel usage as a rolling 12-month summation

## Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in C.1.

F. **Miscellaneous Requirements**

1. None