

Facility ID: 0278080019 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.

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Facility ID: 0278080019 Emissions Unit ID: B015 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>
Caterpillar model 3406, 345 HP (2.5 mmBtu/hr), 4-cycle, lean burn, natural gas-fired, internal combustion engine/compressor unit with catalytic converter/NOx emissions reduction system	OAC rule 3745-31-05(A)(3) (PTI 02-5525)	2.96 lbs/hr and 12.96 TPY of nitrogen oxides (NOx)
		0.30 lb/hr and 1.31 TPY of organic compounds (OC)
		0.46 lb/hr and 2.01 TPY of carbon monoxide (CO)
		0.1 lb/hr and 0.1 TPY of sulfur dioxide (SO2)
		0.1 lb/hr and 0.1 TPY of particulate emissions (PE)
	OAC rule 3745-17-07(A)	Visible particulate emissions from the stack serving this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-17-11(B)(5)(a)	The PE limitation specified in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).

**2. Additional Terms and Conditions**

- (a) None

**B. Operational Restrictions**

1. The permittee shall burn only natural gas in this emissions unit.
2. This emissions unit shall utilize the retro-fitted catalytic converter to control NOx emissions at all times that this engine is in operation; this control equipment shall be regularly maintained in accordance with manufacturers specifications.

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

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

**D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

**E. Testing Requirements**

1. Compliance with the emission limitations specified in section A.1. of these terms and conditions shall be determined in accordance with the following methods:

Emission Limitations:  
 2.96 lbs/hr and 12.96 TPY of NOx  
  
 0.30 lb/hr and 1.31 TPY of OC  
  
 0.46 lb/hr and 2.01 TPY of CO

0.1 lb/hr and 0.1 TPY of SO2

0.1 lb/hr and 0.1 TPY of PE

**Applicable Compliance Method:**

Compliance with each of the above emission limitations shall be based upon the use of each pollutant's respective emission factors as specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollutant Emission Factors, Section 3.2, "Natural Gas-fired Reciprocating Engines," (07/00). The following control efficiencies shall be used for the catalytic converter: 71% for NOx and 67% for CO.

The annual emissions limitations were created by multiplying the hourly emission limitations by 8,760 hours and dividing by 2,000 lbs/ton. (SO2 and PE allowable hourly and annual limits were rounded up to 0.1.)

**Emission Limitation:**

Visible particulate emissions from the stack serving this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

**Applicable Compliance Method:**

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

**F. Miscellaneous Requirements**

- 1. None

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**Facility ID: 0278080019 Emissions Unit ID: B017 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>
Caterpillar model 3408, 435 HP (3.0 mmBtu/hr), 4-cycle, lean burn, natural gas-fired, internal combustion engine/compressor unit with catalytic converter/NOx emissions reduction system	OAC rule 3745-31-05(A)(3) (PTI 02-7612)	3.55 lbs/hr and 15.55 TPY of nitrogen oxides (NOx)
		0.35 lb/hr and 1.53 TPY of organic compounds (OC)
		0.55 lb/hr and 2.41 TPY of carbon monoxide (CO)
		0.1 lb/hr and 0.1 TPY of sulfur dioxide (SO2)
	OAC rule 3745-17-07(A)	0.1 lb/hr and 0.1 TPY of particulate emissions (PE) Visible particulate emissions from the stack serving this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-17-11(B)(5)(a)	The PE limitation specified in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(A)(3).

**2. Additional Terms and Conditions**

- (a) None

**B. Operational Restrictions**

- 1. The permittee shall burn only natural gas in this emissions unit.
- 2. This emissions unit shall utilize the retro-fitted catalytic converter to control NOx emissions at all times that this engine is in operation; this control equipment shall be regularly maintained in accordance with manufacturers specifications.

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

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

**D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

**E. Testing Requirements**

1. Compliance with the emission limitations specified in section A.1. of these terms and conditions shall be determined in accordance with the following methods:

Emission Limitations:

3.55 lbs/hr and 15.55 TPY of NO<sub>x</sub>

0.35 lb/hr and 1.53 TPY of OC

0.55 lb/hr and 2.41 TPY of CO

0.1 lb/hr and 0.1 TPY of SO<sub>2</sub>

0.1 lb/hr and 0.1 TPY of PE

Applicable Compliance Method:

Compliance with each of the above emission limitations shall be based upon the use of each pollutant's respective emission factors as specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollutant Emission Factors, Section 3.2, "Natural Gas-fired Reciprocating Engines," (07/00). The following control efficiencies shall be used for the catalytic converter: 71% for NO<sub>x</sub> and 67% for CO.

The annual emissions limitations were created by multiplying the hourly emission limitations by 8,760 hours and dividing by 2,000 lbs/ton. (SO<sub>2</sub> and PE allowable hourly and annual limits were rounded up to 0.1.)

Emission Limitation:

Visible particulate emissions from the stack serving this emissions unit shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method:

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

**F. Miscellaneous Requirements**

1. None