

Facility ID: 1431380075 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 B008](#)
- [Go to Part II for Emissions Unit B009](#)
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Facility ID: 1431380075 Emissions Unit ID: B008 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>
B008 - 25.2 mmBtu/hour natural gas and No. 2 fuel oil-fired boiler (Atlas boiler)	OAC rule 3745-31-02(A)(2) (Synthetic minor to avoid Title V permitting) (PTI 14-05744)	See terms and conditions A.2.a through A.2.c. See sections B.1 through B.3.
	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as specified by rule.
	OAC rule 3745-17-10(B)(1)	Particulate emissions (PE) shall not exceed 0.020 lb/mmBtu of actual heat input when burning natural gas or No. 2 fuel oil.
	OAC rule 3745-18-06(D)	The emissions limitation specified by this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-02(A)(2).

**2. Additional Terms and Conditions**

- (a) The total combined annual emissions from the combustion of natural gas for boilers B008, B009 and B010 shall not exceed 0.19 ton per year (TPY) of sulfur dioxide (SO<sub>2</sub>).  
  
The TPY emissions limitations for SO<sub>2</sub> when burning natural gas are based on the emissions units' potential to emit. Therefore, no operational restrictions, monitoring and/or record keeping and reporting requirements are necessary to demonstrate compliance with this emissions limitation.  
The total combined emissions from the combustion of No. 2 fuel oil for boilers B008, B009 and B010 shall not exceed 64.35 TPY of SO<sub>2</sub>, based upon a rolling, 12-month summation.  
The actual emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act from emissions units B008 (Atlas boiler), B009 (Ames boiler), B010 (Clever Brooks boiler), P017 (organotin production), P019 (organotin production), any de minimis emissions units as defined in OAC rule 3745-15-05, any registration status and/or permit exempt emissions units, or future constructed emissions units, shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.

**B. Operational Restrictions**

1. The maximum No. 2 fuel oil usage rate for emissions units B008, B009, and B010, combined shall not exceed 1,800,000 gallons per year, based upon a rolling 12-month summation.
2. The permittee shall burn only natural gas and/or No. 2 fuel oil in this emissions unit.
3. The quality of the No. 2 fuel oil burned in this emissions unit shall have a combination of sulfur content and heat content sufficient to comply with a SO<sub>2</sub> emission limitation of 0.55 lb of SO<sub>2</sub> per mmBtu and shall not exceed a maximum sulfur content of 0.5% by weight.

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

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

1. For each day during which the permittee burns a fuel other than natural gas or No. 2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

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

a. Alternative 1:

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

b. Alternative 2:

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

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

3. The permittee shall maintain monthly records of the following information for emissions units B008, B009, and B010, combined:

a. The total volume of natural gas (mmft<sup>3</sup>) burned in this emissions unit.

b. The total number of gallons of No. 2 fuel oil used in this boiler for each month.

c. The rolling, 12-month summation of the gallons of No. 2 fuel oil used.

4. The permittee shall collect and record the following information each month for emissions units identified in term A.2.c:

a. For the boilers, the total individual HAP emission factor of each fuel burned in pounds of individual HAP per gallon/cubic foot of fuel burned;

b. For the boilers, the number of gallons or cubic feet of each fuel burned;

c. For the boilers, the total individual HAP emissions from each fuel burned, in pounds or tons per month [the sum of (a) times (b) times the emissions factor (if applicable) for each fuel burned];

d. For the boilers, the total combined HAP emission factors of all fuels burned in pounds of combined HAPs per gallon/cubic foot of all fuel burned [the sum of all individual HAP emission factors from (a)];

e. For the boilers, the total combined HAPs emissions from all fuels burned, in pounds or tons per month [the sum of (b) times (d) times the emissions factor (if applicable) for all fuels burned];

f. For non-boiler operations, the total individual HAP emissions for each HAP, in pounds or tons per month plus individual HAP emissions from any de minimis, registration status and/or permit exempt emissions unit at the facility;

g. For non-boiler operations, the total combined HAP emissions, in pounds or tons per month plus combined HAP emissions from any de minimis, registration status and/or permit exempt emissions unit at the facility;

h. The updated rolling, 12-month summation of the individual HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months; and

i. The updated rolling, 12-month summation of the combined HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months.

\* A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting Hamilton County Department of Environmental Services. This information does not have to be kept on an individual emissions unit basis.

5. The permittee shall maintain monthly records of the following information for emissions units B008, B009, and B010, combined, in order to monitor compliance with the rolling, 12-month summation emissions limitations for fuel oil:

a. The total SO<sub>2</sub> emissions, in tons; and

- b. The rolling, 12-month summation of total SO<sub>2</sub> emissions, in tons (the total amount of emissions calculated for the current month plus the total amount of emissions for the previous eleven calendar months).

**D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or No. 2 fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month fuel usage limitations and SO<sub>2</sub> emissions limitations specified in section B.1 and term A.2.b of this permit.
3. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the sulfur content specified in section B.3 of this permit.
4. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any exceedance of the HAP emissions limitations outlined in term and condition A.2.c. If no exceedances occurred, the permittee shall state so in the report. The reports shall be submitted by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarters (October through December, January through March, April through June, and July through September, respectively).
5. Unless specified, the deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

**E. Testing Requirements**

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

**Emissions Limitation:**

Visible particulate emissions shall not exceed 20% percent opacity, as a 6-minute average, except as specified by rule.

**Applicable Compliance Method:**

If required, compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60 ("Standards of Performance for New Stationary Sources"), Appendix A, U.S. EPA Reference Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

**Emissions Limitation:**

Particulate emissions (PE) shall not exceed 0.020 lb/mmBtu of actual heat input when firing natural gas or No. 2 fuel oil.

**Applicable Compliance Method:**

When firing natural gas, compliance may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (0.0252 mm cu. ft/hr) by the AP-42, Fifth Edition, Section 1.4, Table 1.4-2 (revised 7/98) emission factor of 1.9 lbs of filterable PE/mm cu. ft, and then dividing by the maximum hourly heat input capacity of the emissions unit (25.2 mmBtu/hr).

When firing no. 2 fuel oil, compliance may be determined by multiplying the maximum fuel oil capacity of the emissions unit ( thousand gallons/hr) by the AP-42, Fifth Edition, Section 1.3, Table 1.3-1 (revised 9/98) emission factor of 2.0 lbs of filterable PE/1000 gallons, and then dividing by the maximum hourly heat input capacity of the emissions unit (25.2 mmBtu/hr).

If required, the permittee shall demonstrate compliance with the lb/mmBtu emissions limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(9) while firing No. 2 fuel oil.

**Emissions Limitation:**

Sulfur dioxide emissions shall not exceed 0.55 lb of SO<sub>2</sub> /mmBtu of actual heat input (fuel oil firing).

**Applicable Compliance Method:**

Compliance with the allowable sulfur dioxide emissions limitation may be demonstrated by documenting that the sulfur content of each shipment of oil received during a calendar month meets the limitation in section B.3.

For the use of number 2 fuel oil, the emissions limitation shall be based upon the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.3, Table 1.3-1 (9/98) where SO<sub>2</sub> emissions factor in lb/1000 gallons = 142(S) and S = the percent sulfur content of the oil employed. Compliance with the lb/mmBtu emission limitation shall be based upon the record keeping in section C.2.

If required, the permittee shall demonstrate compliance with the lb/mmBtu emissions limitation through emissions tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1- 4, and 6.

**Emission Limitations:**

SO<sub>2</sub> emissions shall not exceed 64.35 TPY for B008-B010, combined, when firing No. 2 fuel oil.

**Applicable Compliance Method:**

The actual annual emission rate shall be calculated by using the actual fuel oil usages and emission factors specified below. When firing fuel oil, the annual emissions from emission units B008, B009, and B010, combined, shall be summed over the rolling 12-month period to determine compliance with the annual emission limitation for fuel oil.

**For SO<sub>2</sub> from No. 2 oil:**

SO<sub>2</sub> annual emissions rate = 0.55 lb SO<sub>2</sub>/mmBtu x 1,800,000 gal/yr x 0.130 mmBtu/gal divided by 2000 lb/ton = 64.35 TPY SO<sub>2</sub>.

**Emissions Limitations:**

SO<sub>2</sub> emissions shall not exceed 0.19 TPY for B008-B010, combined, when firing natural gas.

Applicable Compliance Method:

For natural gas, the combined annual limit is based upon the emissions units' potential to emit as provided in PTI application 14-05744 submitted on July 5, 2005 and the following calculation:  
 Annual emissions = 67.1 mmBtu/hr for B008-B010, combined, divided by 950 Btu/cu. ft x 0.6 lbs/mm cubic feet of natural gas (per AP-42 Section 1.4 emissions factors) x 8760 hours per year divided by 2000 pounds per ton.

Emissions Limitations:

9.9 TPY of any single HAP and 24.9 TPY of combined HAPs.

Applicable Compliance Method:

Compliance with the allowable HAP emissions limitations in term and condition A.2.c shall be demonstrated by the record keeping in section C.4.

2. Compliance with the fuel usage limitations in section B.1 shall be demonstrated by the record keeping in section C.3.
3. Compliance with the fuel employed limitation in section B.2 shall be demonstrated by the record keeping in section C.1.

**F. Miscellaneous Requirements**

1. The following terms and conditions of this permit are federally enforceable: A, B, C, D and E.

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Facility ID: 1431380075 Emissions Unit ID: B009 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>
B009 - 12.6 mmBtu/hour natural gas and No. 2 fuel oil-fired boiler (Ames boiler)	OAC rule 3745-31-02(A)(2) (Synthetic minor to avoid title V permitting) (PTI 14-05744)	See terms and conditions A.2.a through A.2.c. See sections B.1 through B.3.
	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as specified by rule.
	OAC rule 3745-17-10(B)(1)	Particulate emissions (PE) shall not exceed 0.020 lb/mmBtu of actual heat input when burning natural gas or No. 2 fuel oil.
	OAC rule 3745-18-06(D)	The emissions limitation specified by this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-02(A)(2).

**2. Additional Terms and Conditions**

- (a) The total combined annual emissions from the combustion of natural gas for boilers B008, B009 and B010 shall not exceed 0.19 ton per year (TPY) of sulfur dioxide (SO<sub>2</sub>).
 

The TPY emissions limitations for SO<sub>2</sub> when burning natural gas are based on the emissions units' potential to emit. Therefore, no operational restrictions, monitoring and/or record keeping and reporting requirements are necessary to demonstrate compliance with this emissions limitation.

The total combined emissions from the combustion of No. 2 fuel oil for boilers B008, B009 and B010 shall not exceed 64.35 TPY of SO<sub>2</sub>, based upon a rolling, 12-month summation.

The actual emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act from emissions units B008 (Atlas boiler), B009 (Ames boiler), B010 (Cleaver Brooks boiler), P017 (organotin production), P019 (organotin production), any de minimis emissions units as defined in OAC rule 3745-15-05, any registration status and/or permit exempt emissions units, or future

constructed emissions units, shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.

**B. Operational Restrictions**

1. The maximum No. 2 fuel oil usage rate for emissions units B008, B009, and B010, combined shall not exceed 1,800,000 gallons per year, based upon a rolling 12-month summation.
2. The permittee shall burn only natural gas and/or No. 2 fuel oil in this emissions unit.
3. The quality of the oil burned in this emissions unit shall have a combination of sulfur content and heat content sufficient to comply with a SO<sub>2</sub> emission limitation of 0.55 lb of SO<sub>2</sub> per mmBtu and shall not exceed a maximum sulfur content of 0.5% by weight.

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

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

1. For each day during which the permittee burns a fuel other than natural gas or No. 2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below.
  - a. Alternative 1:

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

b. Alternative 2:

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

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

3. The permittee shall maintain monthly records of the following information for emissions units B008, B009, and B010, combined:
  - a. The total volume of natural gas (mmft<sup>3</sup>) burned in this emissions unit.
  - b. The total number of gallons of No. 2 fuel oil used in this boiler for each month.
  - c. The rolling, 12-month summation of the gallons of No. 2 fuel oil used.
4. The permittee shall collect and record the following information each month for emissions units identified in term A.2.c:
  - a. For the boilers, the total individual HAP emission factor of each fuel burned in pounds of individual HAP per gallon/cubic foot of fuel burned;
  - b. For the boilers, the number of gallons or cubic feet of each fuel burned;
  - c. For the boilers, the total individual HAP emissions from each fuel burned, in pounds or tons per month [the sum of (a) times (b) times the emissions factor (if applicable) for each fuel burned];
  - d. For the boilers, the total combined HAP emission factors of all fuels burned in pounds of combined HAPs per gallon/cubic foot of all fuel burned [the sum of all individual HAP emission factors from (a)];
  - e. For the boilers, the total combined HAPs emissions from all fuels burned, in pounds or tons per month [the sum of (b) times (d) times the emissions factor (if applicable) for all fuels burned];
  - f. For non-boiler operations, the total individual HAP emissions for each HAP, in pounds or tons per month plus individual HAP emissions from any de minimis, registration status and/or permit exempt emissions unit at the facility;
  - g. For non-boiler operations, the total combined HAP emissions, in pounds or tons per month plus combined HAP emissions from any de minimis, registration status and/or permit exempt emissions unit at the facility;
  - h. The updated rolling, 12-month summation of the individual HAP emissions, in pounds or tons. This shall

include the information for the current month and the preceding eleven calendar months; and  
 i. The updated rolling, 12-month summation of the combined HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months.

\* A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting Hamilton County Department of Environmental Services. This information does not have to be kept on an individual emissions unit basis.

5. The permittee shall maintain monthly records of the following information for emissions units B008, B009, and B010, combined, in order to monitor compliance with the rolling, 12-month summation emissions limitations for fuel oil:

a. The total SO<sub>2</sub> emissions, in tons; and

b. The rolling, 12-month summation of total SO<sub>2</sub> emissions, in tons (the total amount of emissions calculated for the current month plus the total amount of emissions for the previous eleven calendar months).

**D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or No. 2 fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month fuel usage limitations and SO<sub>2</sub> emissions limitations specified in section B.1 and term A.2.b of this permit.
3. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the sulfur content specified in section B.3 of this permit.
4. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any exceedance of the HAP emissions limitations outlined in term and condition A.2.c. If no exceedances occurred, the permittee shall state so in the report. The reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters (October through December, January through March, April through June, and July through September, respectively).
5. Unless specified, the deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

**E. Testing Requirements**

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

**Emissions Limitation:**

Visible particulate emissions shall not exceed 20% percent opacity, as a 6-minute average, except as specified by rule.

**Applicable Compliance Method:**

If required, compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60 ("Standards of Performance for New Stationary Sources"), Appendix A, U.S. EPA Reference Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

**Emissions Limitation:**

Particulate emissions (PE) shall not exceed 0.020 lb/mmBtu of actual heat input when firing natural gas or No. 2 fuel oil.

**Applicable Compliance Method:**

When firing natural gas, compliance may be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (0.0126 mm cu. ft/hr) by the AP-42, Fifth Edition, Section 1.4, Table 1.4-2 (revised 7/98) emission factor of 1.9 lbs of filterable PE/mm cu. ft, and then dividing by the maximum hourly heat input capacity of the emissions unit (12.6 mmBtu/hr).

When firing No. 2 fuel oil, compliance may be determined by multiplying the maximum fuel oil capacity of the emissions unit ( thousand gallons/hr) by the AP-42, Fifth Edition, Section 1.3, Table 1.3-1 (revised 9/98) emission factor of 2.0 lbs of filterable PE/1000 gallons, and then dividing by the maximum hourly heat input capacity of the emissions unit (12.6 mmBtu/hr).

If required, the permittee shall demonstrate compliance with the lb/mmBtu emissions limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(9) while firing No. 2 fuel oil.

**Emissions Limitation:**

Sulfur dioxide emissions shall not exceed 0.55 lb of SO<sub>2</sub> /mmBtu of actual heat input (fuel oil firing).

**Applicable Compliance Method:**

Compliance with the allowable sulfur dioxide emissions limitation may be demonstrated by documenting that the sulfur content of each shipment of oil received during a calendar month meets the limitation in term B.3.

For the use of number 2 fuel oil, the emissions limitation shall be based upon the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.3, Table 1.3-1 (9/98) where SO<sub>2</sub> emissions factor in lb/1000 gallons = 142(S) and S = the percent sulfur content of the oil employed. Compliance with the lb/mmBtu emission limitation shall be based upon the record keeping in term and condition C.2.

If required, the permittee shall demonstrate compliance with the lb/mmBtu emissions limitation through emissions tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1- 4, and 6.

**Emission Limitations:**

64.35 TPY of SO<sub>2</sub> for B008-B010, combined, when firing No. 2 fuel oil.

**Applicable Compliance Method:**

The actual annual emission rate shall be calculated by using the actual fuel oil usages and emission factors specified below. When firing fuel oil, the annual emissions from emission units B008, B009, and B010, combined, shall be summed over the rolling 12-month period to determine compliance with the annual emission limitation for fuel oil.

For SO2 from No. 2 oil:

SO2 annual emissions rate = 0.55 lb SO2/mmBtu x 1,800,000 gal/yr x 0.130 mmBtu/gal divided by 2000 lb/ton = 64.35 TPY SO2.

**Emissions Limitations:**

0.19 TPY of SO2 for B008-B010, combined, when firing natural gas.

**Applicable Compliance Method:**

For natural gas, the combined annual limit is based upon the emissions units' potential to emit as provided in PTI application 14-05744 submitted on July 5, 2005 and the following calculation:

Annual emissions = 67.1 mmBtu/hr for B008-B010, combined, divided by 950 Btu/cu. ft x 0.6 lbs/mm cubic feet of natural gas (per AP-42 Section 1.4 emissions factors) x 8760 hours per year divided by 2000 pounds per ton.

**Emissions Limitations:**

9.9 TPY of any single HAP and 24.9 TPY of combined HAPs.

**Applicable Compliance Method:**

Compliance with the allowable HAP emissions limitations in term and condition A.2.c shall be demonstrated by the record keeping in section C.4.

2. Compliance with the fuel usage limitations in section B.1 shall be demonstrated by the record keeping in section C.3.
3. Compliance with the fuel employed limitation in section B.2 shall be demonstrated by the record keeping in section C.1.

**F. Miscellaneous Requirements**

1. The following terms and conditions of this permit are federally enforceable: A, B, C, D and E.

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

**Facility ID: 1431380075 Emissions Unit ID: B010 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>
B010 - 29.3 mmBtu/hour natural gas and No. 2 fuel oil-fired boiler (Clever Brooks boiler) (PTI 14-05744)	OAC rule 3745-31-05(A)(3)	See terms and conditions A.2.a through A.2.d. See section B.2.
	OAC rule 3745-35-07(B) (Synthetic minor to avoid title V permitting)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A), OAC rule 3745-21-08(B), and OAC rule 3745-35-07 (B). The sulfur dioxide (SO2) emissions based on a rolling 12-month average for boilers B008, B009 and B010 combined shall not exceed the following 0.19 ton per year (TPY) of SO2 when burning natural gas and 64.35 TPY of SO2 when burning oil.  See See term and condition A.2.e. See sections B.1 and B.3.

OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as specified by rule.
OAC rule 3745-17-10(B)(1)	The emissions limitation specified by this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3).
OAC rule 3745-18-06(D)	The emissions limitation specified by this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3).
OAC rule 3745-21-08(B)	See term and condition A.2.f.

**2. Additional Terms and Conditions**

(a) When burning only natural gas, the following emissions limitations shall not be exceeded for this emissions unit:

- 0.11 lb of nitrogen oxides (NOx)/mmBtu of actual heat input;
- 0.089 lb of carbon monoxide (CO)/mmBtu of actual heat input;
- 0.008 lb of particulate emissions (PE) and particulate emissions ten microns and less in diameter (PM10)/mmBtu of actual heat input;
- 0.012 lb of organic compounds (OC)/mmBtu of actual heat input; and
- 0.001 lb of sulfur dioxide (SO2)/mmBtu of actual heat input.

The lb/mmBtu emissions limitations above are based on the emissions unit's potential to emit. Therefore, no operational restrictions, monitoring and/or record keeping requirements, and reporting requirements are necessary to demonstrate compliance with these emissions limitations. When burning No. 2 fuel oil, the following emissions limitations shall not be exceeded:

- 0.16 lb of NOx/mmBtu of actual heat input;
- 0.039 lb of CO/mmBtu of actual heat input;
- 0.016 lb of PE/mmBtu of actual heat input;
- 0.008 lb of PM10/mmBtu of actual heat input; and
- 0.002 lb of OC/mmBtu of actual heat input.

The lb/mmBtu emissions limitations for PE, PM10, NOx, CO, and OC are based on the emissions unit's potential to emit. Therefore, no operational restrictions, monitoring and/or record keeping requirements, and reporting requirements are necessary to demonstrate compliance with these emissions limitations. The annual emissions from the combustion of natural gas for boiler B010 shall not exceed the following:

- 14.12 TPY of NOx;
- 11.42 TPY of CO;
- 1.03 TPY of PE/PM10; and
- 1.54 TPY of OC.

The TPY emission limitations for PE, PM10, NOx, CO, and OC when burning natural gas are based on the emissions unit's potential to emit. Therefore, no operational restrictions, monitoring and/or record keeping requirements, and reporting requirements are necessary to demonstrate compliance with these emissions limitations. The annual emissions from the combustion of No. 2 fuel oil for boiler B010 shall not exceed the following:

- 20.53 TPY of NOx;
- 5.01 TPY of CO;
- 2.05 TPY of PE;
- 1.03 TPY of PM10; and
- 0.26 TPY of OC.

The actual emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act from emissions units B008 (Atlas boiler), B009 (Ames boiler), B010 (Cleaver Brooks boiler), P017 (organotin production), P019 (organotin production), any de minimis emissions units as defined in OAC rule 3745-15-05, any registration status and/or permit exempt emissions units, or future constructed emissions units, shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.

The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology (BAT) requirements established in PTI No. 14-05744. The design of the emissions unit and the technology associated with the current operating practices satisfy the BAT requirements.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. On June 24, 2003, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the visible emissions limitation, the mass emission limitations, the use of natural gas and/or No. 2 fuel oil and the annual fuel usage restriction.

**B. Operational Restrictions**

1. The maximum No. 2 fuel oil usage rate for emissions units B008, B009, and B010, combined shall not exceed 1,800,000 gallons per year, based upon a rolling 12-month summation.
2. The permittee shall burn only natural gas and/or No. 2 fuel oil in this emissions unit.
3. The quality of the oil burned in this emissions unit shall have a combination of sulfur content and heat content

sufficient to comply with a SO<sub>2</sub> emissions limitation of 0.55 lb of SO<sub>2</sub> per mmBtu and shall not exceed a maximum sulfur content of 0.5% by weight.

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

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

1. For each day during which the permittee burns a fuel other than natural gas or No. 2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below.
  - a. Alternative 1:

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

b. Alternative 2:

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

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

3. The permittee shall maintain monthly records of the following information for emissions units B008, B009, and B010, combined:
  - a. The total volume of natural gas (mmft<sup>3</sup>) burned in this emissions unit.
  - b. The total number of gallons of No. 2 fuel oil used in this boiler for each month.
  - c. The rolling, 12-month summation of the gallons of No. 2 fuel oil used.
4. The permittee shall collect and record the following information each month for emissions units identified in term A.2.e:
  - a. For the boilers, the total individual HAP emission factor of each fuel burned in pounds of individual HAP per gallon/cubic foot of fuel burned;
  - b. For the boilers, the number of gallons or cubic feet of each fuel burned;
  - c. For the boilers, the total individual HAP emissions from each fuel burned, in pounds or tons per month [the sum of (a) times (b) times the emissions factor (if applicable) for each fuel burned];
  - d. For the boilers, the total combined HAP emission factors of all fuels burned in pounds of combined HAPs per gallon/cubic foot of all fuel burned [the sum of all individual HAP emission factors from (a)];
  - e. For the boilers, the total combined HAPs emissions from all fuels burned, in pounds or tons per month [the sum of (b) times (d) times the emissions factor (if applicable) for all fuels burned];
  - f. For non-boiler operations, the total individual HAP emissions for each HAP, in pounds or tons per month plus individual HAP emissions from any de minimis, registration status and/or permit exempt emissions unit at the facility;
  - g. For non-boiler operations, the total combined HAP emissions, in pounds or tons per month plus combined HAP emissions from any de minimis, registration status and/or permit exempt emissions unit at the facility;
  - h. The updated rolling, 12-month summation of the individual HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months; and
  - i. The updated rolling, 12-month summation of the combined HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months.

\* A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting Hamilton County Department of Environmental Services. This information does not have to be kept on an individual emissions unit basis.
5. The permittee shall maintain monthly records of the following information for emissions units B008, B009, and B010, combined, in order to monitor compliance with the rolling, 12-month summation emissions limitations for fuel oil:

a. The total SO<sub>2</sub> emissions, in tons; and

b. The rolling, 12-month summation of total SO<sub>2</sub> emissions, in tons (the total amount of emissions calculated for the current month plus the total amount of emissions for the previous eleven calendar months).

**D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or No. 2 fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month fuel usage limitations and SO<sub>2</sub> emissions limitations specified in sections B.1 and A.1 of this permit.
3. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the SO<sub>2</sub> emissions limitation and fuel sulfur content specified in section B.3 of this permit.
4. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any exceedance of the HAP emissions limitations outlined in term and condition A.2.e. If no exceedances occurred, the permittee shall state so in the report. The reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters (October through December, January through March, April through June, and July through September, respectively).
5. Unless specified, the deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

**E. Testing Requirements**

1. Compliance with the emissions limitations in Sections A and B of these terms and conditions shall be determined in accordance with the following methods:

**Emissions Limitation:**

Visible particulate emissions shall not exceed 20% percent opacity, as a 6-minute average, except as specified by rule.

**Applicable Compliance Method:**

If required, compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60 ("Standards of Performance for New Stationary Sources"), Appendix A, U.S. EPA Reference Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

**Emissions Limitations:**

Particulate emissions (PE/PM<sub>10</sub>) shall not exceed 0.008 lb/mmBtu of actual heat input and 1.03 TPY of PE/PM<sub>10</sub> when firing natural gas; 0.016 lb of PE/mmBtu of actual heat input and 2.05 TPY of PE when firing fuel oil; and 0.008 lb of PM<sub>10</sub>/mmBtu of actual heat input and 1.03 TPY of PM<sub>10</sub> when firing fuel oil.

**Applicable Compliance Method:**

For the use of natural gas, compliance shall be determined by multiplying the hourly gas burning capacity of the emissions unit (mm cu. ft/hr) by the AP-42, Fifth Edition, Section 1.4, Table 1.4-2 (revised 7/98) emission factor of 7.6 lbs of PE/PM<sub>10</sub>/mm cu. ft, and then dividing by the maximum hourly heat input of the emissions unit (mmBtu/hr).

When firing No. 2 fuel oil, compliance shall be determined by multiplying the hourly fuel burning capacity of the emissions unit (1000 gallons/hr) by the AP-42, Fifth Edition, Section 1.3, Table 1.3-1 (revised 9/98) emission factor of 2.0 lbs of filterable PE/1000 gallons (or for PM<sub>10</sub>, the AP-42, Fifth Edition, Section 1.3, Table 1.3-1 (revised 9/98) emission factor of 1.0 lb of PM<sub>10</sub>/1000 gallons) and then dividing by the maximum hourly heat input of the emissions unit (mmBtu/hr).

Compliance with the annual emissions limitations may be demonstrated by multiplying the lb of PE/PM<sub>10</sub>/mmBtu value by the maximum rated heat input capacity of the emissions unit (in mmBtu/hr), then multiplying by 8760 hrs/yr and dividing by 2000 lbs/ton.

If required, the permittee shall demonstrate compliance with the lb/mmBtu emissions limitation through emissions tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

**Emissions Limitations:**

Sulfur dioxide emissions shall not exceed:

0.001 lb of SO<sub>2</sub>/mmBtu of actual heat input; and 0.19 TPY of SO<sub>2</sub> for B008-B010, combined, when burning natural gas; and 0.55 lb of SO<sub>2</sub>/mmBtu of actual heat input; and 64.35 TPY of SO<sub>2</sub> for B008-B010, combined, when burning fuel oil.

**Applicable Compliance Method:**

For the use of natural gas, compliance shall be determined by multiplying the hourly gas burning capacity of the emissions unit (mm cu. ft/hr) by the AP-42, Fifth Edition, Section 1.4, Table 1.4-2 (revised 7/98) emission factor of 0.6 lbs of SO<sub>2</sub>/mm cu. ft, and then dividing by the maximum hourly heat input of the emissions unit (mmBtu/hr). For natural gas, the combined annual limit is based upon the emissions units' potential to emit as provided in PTI application 14-05744 submitted on July 5, 2005 and the following calculation:

Annual emissions = 67.1 mmBtu/hr for B008-B010, combined, divided by 950 Btu/cu. ft x 0.6 lbs/mm cubic feet of natural gas (per AP-42 Section 1.4 emissions factors) x 8760 hours per year divided by 2000 pounds per ton.

For the use of No. 2 fuel oil, compliance shall be determined by the emissions factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.3, Table 1.3-1 (9/98), where the SO<sub>2</sub> emissions factor in lb/1000 gallons = 142(S) and S = the percent sulfur content of the oil. Compliance with the lb/mmBtu emissions limitation shall be based upon the record keeping in section C.2.

The annual emissions from emission units B008, B009, and B010, combined, shall be summed over the rolling 12-month period to determine compliance with the annual emissions limitation. SO<sub>2</sub> annual emissions rate =

0.55 lb SO<sub>2</sub>/mmBtu x 1,800,000 gal/yr x 0.130 mmBtu/gal divided by 2000 lbs/ton = 64.35 TPY SO<sub>2</sub>.

If required, the permittee shall demonstrate compliance with the lb/mmBtu emissions limitation through emissions tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1- 4, and 6.

**Emissions Limitations:**

0.11 lb of NO<sub>x</sub>/mmBtu of actual heat input and 14.12 TPY NO<sub>x</sub> when burning natural gas; and  
0.16 lb of NO<sub>x</sub>/mmBtu of actual heat input and 20.53 TPY NO<sub>x</sub> when burning fuel oil.

**Applicable Compliance Method:**

When burning natural gas, compliance shall be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (mm cu.ft/hr) by the AP-42, Fifth Edition, Section 1.4, Table 1.4-1 (revised 7/98) emission factor of 100 lbs of NO<sub>x</sub>/mm cu. ft of natural gas, and then dividing by the maximum hourly heat input capacity of the emissions unit (mmBtu/hr).

When burning No. 2 fuel oil, compliance shall be determined by multiplying the maximum fuel oil capacity of the emissions unit (thousand gallons/hr) by the AP-42, Fifth Edition, Section 1.3, Table 1.3-1 (revised 9/98) emission factor of 20 lbs of NO<sub>x</sub>/1000 gallons of fuel oil, and then dividing by the maximum hourly heat input capacity of the emissions unit (mmBtu/hr).

Compliance with the annual emissions limitations may be demonstrated by multiplying the lb of NO<sub>x</sub>/mmBtu value by the maximum rated heat input capacity of the emissions unit (in mmBtu/hr), then multiplying by 8760 hrs/yr and dividing by 2000 lbs/ton.

If required, the permittee shall demonstrate compliance with the lb/mmBtu emissions limitation through emissions tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1- 4, and 7.

**Emissions Limitations:**

0.089 lb of CO/mmBtu of actual heat input and 11.42 TPY of CO when burning natural gas; and  
0.039 lb of CO/mmBtu of actual heat input and 5.01 TPY of CO when burning No. 2 fuel oil.

**Applicable Compliance Method:**

When burning natural gas, compliance shall be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (mm cu.ft/hr) by the AP-42, Fifth Edition, Section 1.4, Table 1.4-1 (revised 7/98) emissions factor of 84 lbs of CO/mm cu. ft of natural gas, and then dividing by the maximum hourly heat input capacity of the emissions unit (mmBtu/hr).

When burning No. 2 fuel oil, compliance shall be determined by multiplying the maximum fuel oil capacity of the emissions unit (1000 gallons/hr) by the AP-42, Fifth Edition, Section 1.3, Table 1.3-1 (revised 9/98) emissions factor of 5 lbs of CO/1000 gallons of fuel oil and then dividing by the maximum hourly heat input capacity of the emissions unit (mmBtu/hr).

Compliance with the annual emissions limitations may be demonstrated by multiplying the lb of CO/mmBtu value by the maximum rated heat input capacity of the emissions unit (in mmBtu/hr), then multiplying by 8760 hrs/yr and dividing by 2000 lbs/ton.

If required, the permittee shall demonstrate compliance with the lb/mmBtu emissions limitation in accordance with 40 CFR, Part 60, Appendix A, Methods 1- 4, and 10.

**Emissions Limitations:**

0.012 lb of OC/mmBtu of actual heat input and 1.54 TPY of OC when burning natural gas; and  
0.002 lb of OC/mmBtu of actual heat input and 0.26 TPY of OC when burning No. 2 fuel oil.

**Applicable Compliance Method:**

When burning natural gas, compliance shall be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (mm cu. ft/hr) by the AP-42, Fifth Edition, Section 1.4, Table 1.4-1 (revised 7/98) emission factor of 11 lbs of OC/mm cu. ft of natural gas, and then dividing by the maximum hourly heat input capacity of the emissions unit (mmBtu/hr).

When burning No. 2 fuel oil, compliance shall be determined by multiplying the maximum fuel oil capacity of the emissions unit (1000 gallons/hr) by the AP-42, Fifth Edition, Section 1.3, Table 1.3-3 (revised 9/98) emission factor of 0.252 lb of OC/1000 gallons of fuel oil, and then dividing by the maximum hourly heat input capacity of the emissions unit (mmBtu/hr).

Compliance with the annual emissions limitations may be demonstrated by multiplying the lb of OC/mmBtu value by the maximum rated heat input capacity of the emissions unit (in mmBtu/hr), then multiplying by 8760 hrs/yr and dividing by 2000 lbs/ton.

If required, the permittee shall demonstrate compliance with the lb/mmBtu emissions limitations in accordance with 40 CFR, Part 60, Appendix A, Methods 1- 4, and 25.

**Emissions Limitations:**

9.9 TPY of any single HAP and 24.9 TPY of combined HAPs.

**Applicable Compliance Method:**

Compliance with the allowable Hazardous Air Pollutant (HAP) emissions limitations in term and condition A.2.e shall be demonstrated by the record keeping in section C.4.

2. Compliance with the fuel usage limitations in section B.1 shall be demonstrated by the record keeping in section C.3.
3. Compliance with the fuel employed limitation in section B.2 shall be demonstrated by the record keeping in section C.1.

**F. Miscellaneous Requirements**

1. The following terms and conditions of this permit are federally enforceable: A, B, C, D and E.

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

Facility ID: 1431380075 Emissions Unit ID: P017 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>
P017 - B-12 organotins production with two stage compression system to condense out volatile organic compounds	OAC rule 3745-31-02(A)(2) (Synthetic minor to avoid 40 CFR 63 Subpart FFFF and Title V permitting) (PTI 14-05744)	The volatile organic compound (VOC) emissions shall not exceed the following: 306 lbs/day of VOC based upon a weekly average from Monday through Sunday; and 9.9 tons/year of VOC based on a rolling, 12-month summation for emissions units P017 and P019, combined.
	OAC rule 3745-21-09(KK)	See terms and conditions A.2.a., A.2.b. See sections B.1 through B.3. The emissions limitation specified by this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-02(A)(2).

**2. Additional Terms and Conditions**

- (a) Emissions units P017 and P019, which produce methyltin intermediates, shall be equipped with a VOC recovery system which is designed and operated to achieve a control efficiency of at least 85%, by weight, as a weekly average for each 7-day period, extending from Monday through Sunday, inclusive, for the VOC emissions in the process vent gas, as determined under paragraph (C) of rule 3745-21-10 of the Administrative Code.  
The actual emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act from emissions units B008 (Atlas boiler), B009 (Ames boiler), B010 (Cleaver Brooks boiler), P017 (organotin production), P019 (organotin production), any de minimis emissions units as defined in OAC rule 3745-15-05, any registration status and/or permit exempt emissions units, or future constructed emissions units, shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.

**B. Operational Restrictions**

1. The maximum amount of VOC and HAP (methyl chloride) charged to emissions units P017 and P019, combined, shall not exceed 5000 tons/year based on a rolling, 12-month summation. Under normal conditions, as provided in permit to install application 14-05744 received on July 5, 2005, a throughput of 440 TPY of methyl chloride would equate to a methyl chloride emission rate of 9.9 TPY. A greater throughput is permitted with a corresponding increase in condenser recovery efficiency and/or decrease in excess input of methyl chloride such that the combination of throughput and condenser efficiency result in facility-wide emissions that do not exceed 9.9 tons per year of VOC and HAP (methyl chloride) emissions. Compliance with the annual usage limitation shall be based upon rolling, 12-month summations.
2. The permittee shall operate and maintain monitoring equipment at the inlet and outlet of the VOC control equipment which is capable of measuring the gas mass flow with a minimum accuracy of one percent and the gas density with a minimum accuracy of ten percent, in accordance with the manufacturer's recommendations, instructions and operating manual(s).
3. The permittee shall operate and maintain equipment capable of detecting compressor shutdowns. The low-pressure set point shall be recorded weekly.

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

1. The permittee shall, on a daily basis for emissions units P017 and P019, determine the amount of VOC vented to, and emitted from, the VOC vapor recovery system. The overall VOC control efficiency shall be calculated each week as one minus the ratio of the total emitted VOC for the 7-day period from Monday through Sunday to the total VOC vented to the VOC recovery system for the same 7-day period. The efficiency shall be expressed as a percentage. The efficiency shall be calculated not later than the Monday following each 7-day period. The

amount of nitrogen and methane emitted shall be subtracted from the total emissions to determine the amount of VOC (methyl chloride) emitted.

2. The permittee shall record the number of shutdowns of the emissions unit(s) each week.
3. The permittee shall calculate and record the daily VOC emissions based upon a weekly average of the VOC emissions from P017 and P019, combined from Monday through Sunday.
4. The permittee shall maintain monthly records of the following information:
  - a. The amount of methyl chloride charged to emissions units P017 and P019 combined, in pounds or tons.
  - b. The amount of methyl chloride vented from emissions units P017 and P019 combined to the control equipment, in pounds or tons.
  - c. The amount of methyl chloride emitted from the control equipment to the ambient air from emissions units P017 and P019 combined.
  - d. The rolling, 12-month summation in tons of methyl chloride charged to emissions units P017 and P019 combined.
  - e. The rolling, 12-month summation of VOC\* emissions from emissions units P017 and P019 combined, in pounds or tons.

\*All VOC emissions are methyl chloride.

5. The permittee shall maintain daily records of the amount of excess methyl chloride from processes P017 and P019 and record this amount and when the excess methyl chloride exceeds 15 percent, by weight.
6. The permittee shall collect and record the following information each month for emissions units identified in term A.2.b:
  - a. For the boilers, the total individual HAP emission factor of each fuel burned in pounds of individual HAP per gallon/cubic foot of fuel burned;
  - b. For the boilers, the number of gallons or cubic feet of each fuel burned;
  - c. For the boilers, the total individual HAP emissions from each fuel burned, in pounds or tons per month [the sum of (a) times (b) times the emissions factor (if applicable) for each fuel burned];
  - d. For the boilers, the total combined HAP emission factors of all fuels burned in pounds of combined HAPs per gallon/cubic foot of all fuel burned [the sum of all individual HAP emission factors from (a)];
  - e. For the boilers, the total combined HAPs emissions from all fuels burned, in pounds or tons per month [the sum of (b) times (d) times the emissions factor (if applicable) for all fuels burned];
  - f. For non-boiler operations, the total individual HAP emissions for each HAP, in pounds or tons per month plus individual HAP emissions from any de minimis, registration status and/or permit exempt emissions unit at the facility;
  - g. For non-boiler operations, the total combined HAP emissions, in pounds or tons per month plus combined HAP emissions from any de minimis, registration status and/or permit exempt emissions unit at the facility;
  - h. The updated rolling, 12-month summation of the individual HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months; and
  - i. The updated rolling, 12-month summation of the combined HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months.

\* A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting Hamilton County Department of Environmental Services. This information does not have to be kept on an individual emissions unit basis.

7. To ensure compliance with the emissions limitations in Section A of this permit, the permittee shall utilize indirect monitoring systems for gas temperature, mass flow and density while the direct monitoring systems are being maintained in accordance with the manufacturer's recommendations, instructions and operating manual(s).

**D. Reporting Requirements**

1. The permittee shall notify the Hamilton County Department of Environmental Services of any weekly average control efficiency that is less than 85 percent, by weight. A copy of the record showing the noncomplying weekly average control efficiency shall be submitted to the Hamilton County Department of Environmental Services within 30 days of the occurrence.
2. The permittee shall submit deviation (excursion) reports which identify any exceedances of the rolling, 12-month methyl chloride usage limitation in section B.1.
3. The permittee shall submit deviation (excursion) reports which identify any exceedances of the daily VOC emissions limitation in section A.1.
4. The permittee shall notify the Hamilton County Department of Environmental Services in writing of any exceedance of the HAP emissions limitations outlined in term and condition A.2.b. If no exceedances occurred, the permittee shall state so in the report. The reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters (October through December, January through March, April through June, and July through September, respectively).
5. The permittee shall submit annual reports which specify the total VOC emissions from emissions units P017 and P019 combined for the previous calendar year. These reports shall be submitted by January 31 of each year.

6. The permittee shall submit deviation (excursion) reports in accordance with the General Terms and Conditions of this permit.

**E. Testing Requirements**

1. Compliance with the emissions limitations in Sections A and B of these terms and conditions shall be determined in accordance with the following methods:

Emissions limitation:

Control efficiency of at least 85 percent, by weight, as a weekly average for the 7-day period from Monday through Sunday, for the VOC emissions in the process vent gas.

Applicable compliance method:

Compliance with the requirements of A.2.a shall be determined based upon the record keeping in section C.1. If required, the permittee shall demonstrate compliance with the VOC recovery system control efficiency through emission tests performed in accordance with the procedures specified in OAC rule 3745-21-10(C). Alternative testing protocols that may be necessary shall receive prior approval from Ohio EPA and U.S. EPA.

Emissions limitation:

306 lbs/day of VOC based upon a weekly average from Monday through Sunday.

Applicable compliance method:

Compliance with the daily VOC emissions limitation shall be determined by the record keeping in sections C.2 and C.3. The permittee shall continuously monitor and record the total exit gas mass flow, in pounds per hour, and the total exit gas mass density, in pounds per cubic foot, from the condenser(s) outlet. The permittee may use lookup tables to determine the pounds methyl chloride per hour emitted (reference lookup table formulas and graphs submitted to Hamilton County Department of Environmental Services on April 19, 2005). Startup and normal operation emissions shall be determined using the mass density and mass flow monitors. Shutdown and fugitive emissions shall be calculated from actual records and added to the continuous monitoring emissions for startup and normal operation.

The weekly average VOC emissions limitation was based on four startup and shutdown periods per week, three days of steady state conditions, stack test result from July 2005, and application information in PTI 14-05744 submitted on July 5, 2005.

$[(3 \text{ days/week at } 2.84 \text{ lbs. methyl chloride emitted /hour of normal operation } * 24 \text{ hrs/day}) + (4 \text{ days/week with one startup \& shutdown per day at } 479.48 \text{ lbs/day}) + (7 \text{ days/wk } * 3.13 \text{ lbs. /day fugitive emissions from material handling and storage})] / 7 \text{ days per week} = 306 \text{ lbs VOC/day as a weekly average.}$

Emissions limitation:

9.9 tons/year VOC based upon a rolling, 12-month summation for emissions units P017 and P019 combined.

Applicable compliance method:

Compliance with the rolling, 12-month VOC emissions limitation in Section A.1 shall be determined by the record keeping in term and condition C.4.e.

Emissions limitations:

9.9 TPY for any single HAP and 24.9 TPY for combined HAPs.

Applicable compliance method:

Compliance with the HAP emissions limitations in term A.2.b shall be demonstrated by the record keeping requirements specified in section C.6.

2. Compliance with the rolling, 12-month methyl chloride usage limitation in section B.1 shall be determined by the record keeping in section C.4.

**F. Miscellaneous Requirements**

1. The following terms and conditions of this permit are federally enforceable: A, B, C, D and E.

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

Facility ID: 1431380075 Emissions Unit ID: P019 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>
P019 - B-11 organotin production with two stage compression system to condense out volatile organic compounds	OAC rule 3745-31-02(A)(2) (Synthetic minor to avoid 40 CFR 63 Subpart FFFF and Title V permitting) (PTI 14-05744)	The volatile organic compound (VOC) emissions shall not exceed the following: 306 lbs/day of VOC based upon a weekly average from Monday through Sunday; and 9.9 tons/year of VOC based on a rolling, 12-month summation for emissions units P017 and P019, combined.
	OAC rule 3745-21-09(KK)	See terms and conditions A.2.a and A.2.b. See sections B.1 through B.3. The emissions limitation specified by this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-02(A)(2).

**2. Additional Terms and Conditions**

- (a) Emissions units P017 and P019, which produce methyltin intermediates, shall be equipped with a VOC recovery system which is designed and operated to achieve a control efficiency of at least 85%, by weight, as a weekly average for each 7-day period, extending from Monday through Sunday, inclusive, for the VOC emissions in the process vent gas, as determined under paragraph (C) of rule 3745-21-10 of the Administrative Code.  
The actual emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act from emissions units B008 (Atlas boiler), B009 (Ames boiler), B010 (Cleaver Brooks boiler), P017 (organotin production), P019 (organotin production), any de minimis emissions units as defined in OAC rule 3745-15-05, any registration status and/or permit exempt emissions units, or future constructed emissions units, shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.

**B. Operational Restrictions**

- 1. The maximum amount of VOC and HAP (methyl chloride) charged to emissions units P017 and P019, combined, shall not exceed 5000 tons/year based on a rolling, 12-month summation. Under normal conditions, as provided in permit to install application 14-05744 received on July 5, 2005, a throughput of 440 TPY of methyl chloride would equate to a methyl chloride emission rate of 9.9 TPY. A greater throughput is permitted with a corresponding increase in condenser recovery efficiency and/or decrease in excess input of methyl chloride such that the combination of throughput and condenser efficiency result in facility-wide emissions that do not exceed 9.9 tons per year of VOC and HAP (methyl chloride) emissions. Compliance with the annual usage limitation shall be based upon rolling, 12-month summations.
- 2. The permittee shall operate and maintain monitoring equipment at the inlet and outlet of the VOC control equipment which is capable of measuring the gas mass flow with a minimum accuracy of one percent and the gas density with a minimum accuracy of ten percent, in accordance with the manufacturer's recommendations, instructions and operating manual(s).
- 3. The permittee shall operate and maintain equipment capable of detecting compressor shutdowns. The low-pressure set point shall be recorded weekly.

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

- 1. The permittee shall, on a daily basis for emissions units P017 and P019, determine the amount of VOC vented to, and emitted from, the VOC vapor recovery system. The overall VOC control efficiency shall be calculated each week as one minus the ratio of the total emitted VOC for the 7-day period from Monday through Sunday to the total VOC vented to the VOC recovery system for the same 7-day period. The efficiency shall be expressed as a percentage. The efficiency shall be calculated not later than the Monday following each 7-day period. The amount of nitrogen and methane emitted shall be subtracted from the total emissions to determine the amount of VOC (methyl chloride) emitted.
- 2. The permittee shall record the number of shutdowns of the emissions unit(s) each week.
- 3. The permittee shall calculate and record the daily VOC emissions based upon a weekly average of the VOC emissions from P017 and P019, combined from Monday through Sunday.
- 4. The permittee shall maintain monthly records of the following information:
  - a. The amount of methyl chloride charged to emissions units P017 and P019 combined, in pounds or tons.
  - b. The amount of methyl chloride vented from emissions units P017 and P019 combined to the control equipment, in pounds or tons.
  - c. The amount of methyl chloride emitted from the control equipment to the ambient air from emissions units P017 and P019 combined.
  - d. The rolling, 12-month summation in tons of methyl chloride charged to emissions units P017 and P019 combined.
  - e. The rolling, 12-month summation of VOC\* emissions from emissions units P017 and P019 combined, in pounds or tons.

\*All VOC emissions are methyl chloride.
- 5. The permittee shall maintain daily records of the amount of excess methyl chloride from processes P017 and P019 and record this amount and when the excess methyl chloride exceeds 15 percent, by weight.

6. The permittee shall collect and record the following information each month for emissions units identified in term A.2.b:
- For the boilers, the total individual HAP emission factor of each fuel burned in pounds of individual HAP per gallon/cubic foot of fuel burned;
  - For the boilers, the number of gallons or cubic feet of each fuel burned;
  - For the boilers, the total individual HAP emissions from each fuel burned, in pounds or tons per month [the sum of (a) times (b) times the emissions factor (if applicable) for each fuel burned];
  - For the boilers, the total combined HAP emission factors of all fuels burned in pounds of combined HAPs per gallon/cubic foot of all fuel burned [the sum of all individual HAP emission factors from (a)];
  - For the boilers, the total combined HAPs emissions from all fuels burned, in pounds or tons per month [the sum of (b) times (d) times the emissions factor (if applicable) for all fuels burned];
  - For non-boiler operations, the total individual HAP emissions for each HAP, in pounds or tons per month plus individual HAP emissions from any de minimis, registration status and/or permit exempt emissions unit at the facility;
  - For non-boiler operations, the total combined HAP emissions, in pounds or tons per month plus combined HAP emissions from any de minimis, registration status and/or permit exempt emissions unit at the facility;
  - The updated rolling, 12-month summation of the individual HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months; and
  - The updated rolling, 12-month summation of the combined HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months.
- \* A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting Hamilton County Department of Environmental Services. This information does not have to be kept on an individual emissions unit basis.
7. To ensure compliance with the emissions limitations in Section A of this permit, the permittee shall utilize indirect monitoring systems for gas temperature, mass flow and density while the direct monitoring systems are being maintained in accordance with the manufacturer's recommendations, instructions and operating manual(s).

**D. Reporting Requirements**

- The permittee shall notify the Hamilton County Department of Environmental Services of any weekly average control efficiency that is less than 85 percent, by weight. A copy of the record showing the noncomplying weekly average control efficiency shall be submitted to the Hamilton County Department of Environmental Services within 30 days of the occurrence.
- The permittee shall submit deviation (excursion) reports which identify any exceedances of the rolling, 12-month methyl chloride usage limitation in section B.1.
- The permittee shall submit deviation (excursion) reports which identify any exceedances of the daily VOC emissions limitation in section A.1.
- The permittee shall notify the Hamilton County Department of Environmental Services in writing of any exceedance of the HAP emissions limitations outlined in term and condition A.2.b. If no exceedances occurred, the permittee shall state so in the report. The reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters (October through December, January through March, April through June, and July through September, respectively).
- The permittee shall submit annual reports which specify the total VOC emissions from emissions units P017 and P019 combined for the previous calendar year. These reports shall be submitted by January 31 of each year.
- The permittee shall submit deviation (excursion) reports in accordance with the General Terms and Conditions of this permit.

**E. Testing Requirements**

- Compliance with the limitations in Sections A and B of these terms and conditions shall be determined in accordance with the following methods:
 

Emissions limitation:  
Control efficiency of at least 85 percent, by weight, as a weekly average for the 7-day period from Monday through Sunday, for the VOC emissions in the process vent gas.

Applicable compliance method:  
Compliance with the requirements of A.2.a shall be determined based upon the record keeping in section C.1. If required, the permittee shall demonstrate compliance with the VOC recovery system control efficiency through emission tests performed in accordance with the procedures specified in OAC rule 3745-21-10(C). Alternative testing protocols that may be necessary shall receive prior approval from Ohio EPA and U.S. EPA.

Emissions limitation:  
306 lbs/day of VOC based upon a weekly average from Monday through Sunday.

Applicable compliance method:  
Compliance with the daily VOC emissions limitation shall be determined by the record keeping in term and condition C.2 and C.3. The permittee shall continuously monitor and record the total exit gas mass flow, in pounds per hour, and the total exit gas mass density, in pounds per cubic foot, from the condenser(s) outlet. The permittee may use lookup tables to determine the pounds methyl chloride per hour emitted (reference lookup table formulas and graphs submitted to Hamilton County Department of Environmental Services on April 19, 2005). Startup and normal operation emissions shall be determined using the mass density and mass flow monitors. Shutdown and fugitive emissions shall be calculated from actual records and added to the continuous

monitoring emissions for startup and normal operation.

The weekly average VOC emissions limitation was based on four startup and shutdown periods per week, three days of steady state conditions, stack test result from July 2005, and application information in PTI 14-05744 submitted on July 5, 2005.

$[(3 \text{ days/week at } 2.84 \text{ lbs. methyl chloride emitted /hour of normal operation} * 24 \text{ hrs/day}) + (4 \text{ days/week with one startup \& shutdown per day at } 479.48 \text{ lbs/day}) + (7 \text{ days/wk} * 3.13 \text{ lbs. /day fugitive emissions from material handling and storage})] / 7 \text{ days per week} = 306 \text{ lbs VOC/day as a weekly average.}$

Emissions limitation:

9.9 tons/year VOC based upon a rolling, 12-month summation for emissions units P017 and P019 combined.

Applicable compliance method:

Compliance with the rolling, 12-month VOC emissions limitation in Section A.1 shall be determined by the record keeping in term and condition C.4.e.

Emissions limitations:

9.9 TPY for any single HAP and 24.9 TPY for combined HAPs.

Applicable compliance method:

Compliance with the HAP emissions limitations in term A.2.b shall be demonstrated by the record keeping requirements specified in section C.6.

2. Compliance with the rolling, 12-month methyl chloride usage limitation in section B.1 shall be determined by the record keeping in section C.4.

**F. Miscellaneous Requirements**

1. The following terms and conditions of this permit are federally enforceable: A, B, C, D and E.