Facility ID: 0448000012 Issuance type: Title V Proposed Permit

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 III" and before "I. Applicable Emissions Limitations..." has been added to aid in document conversion, and was not part of the original issued permit.

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Part II - Specific Facility Terms and Conditions

a **State and Federally Enforceable Section**

1. None

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b **State Only Enforceable Section**

1. The following insignificant emissions units are located at this facility:

R001 - small maintenance paint booth;
B004 - Dravo makeup air heater - 0.75 mmBtu/hr boiler;
B005 - boiler (Erie City, gas fired) - 2.23 mmBtu/hr boiler;
B007 - boiler (Amesteam, gas fired) - 2.0 mmBtu/hr boiler;
B009 - boiler (Cleaver Brooks) - 4.2 mmBtu/hr boiler;
B011 - entrained combustion boiler (9F2-C) #7 boiler - 1.0 mmBtu/hr oven;
B014 - WIC heat generator - 1.5 mmBtu;
B016 - boiler - 6.3 mmBtu/hr boiler;
F004 - batch silos and rail car unloading;
F005 - truck unloading;
F006 - day bins;
P011 - mix tanks & raw material stoarage;
P016 - Kolene salt bath - caustic cleaning solution;
P018 - Tempstran bag opening station - unloading of tempstran for mats w/ baghouse;
P019 - batch oven #1 - 1.0 mmBtu/hr oven;
P020 - batch oven #2 - 1.0 mmBtu/hr oven;
P021 - batch oven #3 - 1.0 mmBtu/hr oven;
P022 - batch oven #4 - 1.0 mmBtu/hr oven;
P023 - batch oven #5 - 1.0 mmBtu/hr oven;
P024 - batch oven #6 - 1.0 mmBtu/hr oven;
P025 - 9212 generator - 750 hp diesel generator;
P026 - TP chop, fluidized bed dryer #1 - 1.9 mmBtu/hr dryer;
P027 - developmental pre-bake oven - 1.0 mmBtu/hr oven;
P028 - TP chop, fluidized bed dryer line 2 - 1.9 mmBtu/hr dryer;
P029 - pre-bake tunnel oven A - 8.0 mmBtu/hr oven;
P030 - pre-bake tunnel oven B - 8.0 mmBtu/hr oven;
P031 - afterbake tunnel oven - 2.0 mmBtu oven;
P032 - finishing dust control - finishing dust control w/ baghouse;
P033 - finishing dielectric oven - finishing dried cakes;
P037 - direct chop oven #1 - 3.0 mmBtu/hr burner;
P038 - direct chop oven #2 - 3.0 mmBtu/hr burner;
P039 - direct chop oven #3 - 3.0 mmBtu/hr burner;
P040 - direct chop oven #4 - 3.0 mmBtu/hr burner;
P041 - air classifier line 5 and bagger - classifier 9212 line 5;
P042 - air classifier line 6 and bagger - classifier 9212 line 6;
P043 - air classifier line 7 and bagger - classifier 9212 line 7;
P044 - air classifier line 8 and bagger - classifier 9212 line 8;
P046 - small scale T-glass #1 - melting and forming for marble melt T-glass;
P047 - small scale T-glass #2 - melting and forming for marble melt T-glass;
P048 - small scale T-glass #3 - melting and forming for marble melt T-glass;
P049 - small scale T-glass #4 - melting and forming for marble melt T-glass;
P050 - small scale T-glass #5 - melting and forming for marble melt T-glass;
P051 - small scale T-glass #6 - melting and forming for marble melt T-glass; and
P052 - small scale T-glass #7 - melting and forming for marble melt T-glass.

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, as well as any emission limitations and/or control requirements contained within a permit to install for the emissions unit.

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0448000012 Emissions Unit ID: P001 Issuance type: Title V Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Glass melting furnace, oven 9211, natural gas and oxygen-fired Particulate emissions from the furnace are controlled by a fabric filter and fluoride emissions are controlled by a spray tower with a 50% caustic solution (NaOH). Forehearth emissions are uncontrolled and have been included in the emission limitations. Forming room emissions are uncontrolled and have been included in the emission limitations.	OAC rule 3745-31-05(A)(3) (PTI 04-975)	9 lbs/hr of particulate emissions; 39 tpy of particulate emissions as a rolling, 12-month summation; and 1.3 lbs of particulate emissions per ton of glass pulled from all of the equipment comprising this emissions unit 19 lbs/hr of sulfur dioxide (SO2); 84 tpy of SO2 as a rolling, 12-month summation; and 2.8 lbs of SO2 per ton of glass pulled from all of the equipment comprising this emissions unit 24 lbs/hr of nitrogen oxides (NOx); 107 tpy of NOx as a rolling, 12-month summation; and 3.6 lbs of NOx per ton of glass pulled from all of the equipment comprising this emissions unit 2.3 lbs/hr of carbon monoxide (CO); 10.2 tpy of CO as a rolling, 12-month summation; and 0.34 lb of CO per ton of glass pulled from all of the equipment comprising this emissions unit 7.3 lbs/hr of volatile organic compounds (VOC); 32 tpy of VOC as a rolling, 12-month summation; and 1.0 lb of VOC per ton of glass pulled from all of the equipment comprising this emissions unit 11.0 lbs/hr of fluorides; 47 tpy of fluorides as a rolling, 12-month summation; and 1.6 lbs of fluorides per ton of glass pulled from all of the equipment comprising this emissions unit 1.0 lb/hr of methanol; 4.5 tpy of methanol as a rolling, 12-month summation; and 0.15 lb of methanol per ton of glass pulled from all of the equipment comprising this emissions unit

	See sections A.I.2.a, A.I.2.b, and A.I.2.c.
OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
OAC rule 3745-17-11(B)(1)	See section A.I.2.d.
OAC rule 3745-18-06(E)	See section A.I.2.d.
OAC rule 3745-21-08(B)	See section A.I.2.f.
OAC rule 3745-23-06(B)	See section A.I.2.f.

2. **Additional Terms and Conditions**

a. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

b. The permittee shall only employ fuel in this emissions unit with a sulfur content that is less than or equal to 0.5 percent sulfur.

c. The hourly methanol emission limitation was established by modeling and is greater than the potential to emit for this emissions unit; therefore, no monitoring, record keeping, reporting, or testing terms and conditions are necessary for this limitation.

d. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

e. The NaOH solution employed in the spray tower system shall be a minimum of 50% NaOH by volume.

f. The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-975.

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II. **Operational Restrictions**

1. The maximum operating rate for this emissions unit shall not exceed 179 tons of glass pulled per day.

2. The permittee shall burn only natural gas as fuel in this emissions unit.

3. The permittee shall operate the baghouse and caustic spray tower system whenever this emissions unit is in operation.

4. The pressure drop across the baghouse shall be maintained within the range of 2.0 to 4.0 inches of water column while the emissions unit is in operation.

5. The flow rate of NaOH (50% by volume) to the spray tower system shall be greater than 16.7 gallons per hour or greater than the flow rate of the most recent stack test that demonstrated compliance.

6. The water flow rate to the spray tower system shall be greater than 200 gallons per hour or greater than the flow rate established during the most recent stack test that demonstrated compliance.

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

1. The permittee shall maintain daily records of the glass pulled in this emissions unit, in tons.

2. 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.

3. The permittee shall maintain daily records of the volume of natural gas burned in the forehearth, in millions of standard cubic feet.

4. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

The permittee shall collect and record the following information each day:

a. the pressure drop across the baghouse, in inches of water, every 4 hours; and

b. the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

In the event that all bags are replaced simultaneously, the permittee shall record in a separate log the day the complete replacement is made and record every 8 hours the pressure drop across the baghouse until

the minimum pressure drop is reached.

5. The permittee shall properly operate and maintain equipment to continuously monitor the NaOH flow rate and the water flow rate to the spray tower while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

   The permittee shall collect and record the following information each day:

   a. the gallons of the NaOH solution pumped to the spray tower system;

   b. the flow rate of water to the spray tower system, in gallons per hour;

   c. the total hours of operation of this emissions unit and the spray tower system;

   d. the average flow rate of NaOH to the spray tower system, in gallons per hour, i.e., (a)/(c); and

   e. the % of NaOH, by volume, in the NaOH solution pumped to the spray tower system.

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IV. **Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit.

2. The permittee shall submit quarterly deviation (excursion) reports that identify each day when the maximum glass pull rate limitation was exceeded in this emissions unit.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following spray tower parameters were not maintained at or above the required levels:

   a. the water flow rate to the spray tower system;

   b. the NaOH flow rate to the spray tower system; and

   c. the % NaOH, by volume, in the NaOH solution employed.

5. The quarterly deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

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V. **Testing Requirements**

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

   a. Emission Limitation:

      The combined emissions from all of the equipment comprising this emissions unit shall not exceed 9 lbs of particulate emissions per hour.

      Applicable Compliance Methods:

      If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 5 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(10).

   b. Emission Limitation:

      The combined emissions from all of the equipment comprising this emissions unit shall not exceed 1.3 lbs of particulate emissions per ton of glass pulled.

      Applicable Compliance Methods:

      If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 5 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(10).

   c. Emission Limitation:

      The combined emissions from all of the equipment comprising this emissions unit shall not exceed 39 tons of particulate emissions per rolling, 12-month period.

      Applicable Compliance Method:

Compliance may be demonstrated by multiplying the allowable hourly particulate emission limitation (9 lbs/hr) by the actual annual hours of operation, and then dividing by 2,000 pounds per ton. This emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

d. Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 2.3 lbs of CO per hour.

Applicable Compliance Methods:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with the methods and procedures of Method 10 of 40 CFR Part 60 Appendix A. (The forming operations do not contribute to the CO emissions.)

e. Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 0.34 lb of CO per ton of glass pulled.

Applicable Compliance Methods:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with the methods and procedures of Method 10 of 40 CFR Part 60 Appendix A. (The forming operations do not contribute to the CO emissions.)

f. Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 10.2 tons of CO per rolling, 12-month period.

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the allowable hourly CO emission limitation (2.3 lbs/hr) by the actual annual hours of operation, and then dividing by 2,000 pounds per ton. This emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

g. Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 24 lbs/hr of NOx.

Applicable Compliance Methods:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with the methods and procedures of Method 7 of 40 CFR Part 60 Appendix A. (The forming operations do not contribute to the NOx emissions.)

h. Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 3.6 lbs of NOx per ton of glass pulled.

Applicable Compliance Methods:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with the methods and procedures of Method 7 of 40 CFR Part 60 Appendix A. (The forming operations do not contribute to the NOx emissions.)

i. mission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 107 tons of NOx per rolling, 12-month period.

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the allowable hourly NOx emission limitation (24 lbs/hr) by the actual annual hours of operation, and then dividing by 2,000 pounds per ton. This emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

j. Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 19 lbs/hr of SO2.

Applicable Compliance Methods:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with the methods and procedures of Method 6 of 40 CFR Part 60 Appendix A. (The forming operations do not contribute to the SO2 emissions.)

k. Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 2.8 lbs of SO2 per ton of glass pulled.

Applicable Compliance Methods:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with the methods and procedures of Method 6 of 40 CFR Part 60 Appendix A. (The forming operations do not contribute to the SO2 emissions.)

l. Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 84 tons of SO2 per rolling, 12-month period.

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the allowable hourly SO2 emission limitation (19 lbs/hr) by the actual annual hours of operation, and then dividing by 2,000 pounds per ton. This emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

m. Emission Limitations:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 7.3 lbs/hr of VOC.

Applicable Compliance Methods:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed, as appropriate, in accordance with Method 25 or 25A of 40 CFR Part 60, Appendix A.

n. Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 1.0 lb of VOC per ton of glass pulled.

Applicable Compliance Methods:

If required, compliance shall be demonstrated based upon emission testing performed in accordance with the methods and procedures of Method 25 of 40 CFR Part 60 Appendix A.

o. Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 32 tons of VOC per rolling, 12-month period.

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the allowable hourly VOC emission limitation (7.3 lbs/hr) by the actual annual hours of operation, and then dividing by 2,000 pounds per ton. This emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

p. Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 11 lbs of fluoride emissions per hour.

Applicable Compliance Methods:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 13B of 40 CFR Part 60, Appendix A.

q. Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 1.6 lbs of fluoride emissions per ton of glass pulled.

Applicable Compliance Methods:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 13B of 40 CFR Part 60 Appendix A.

r. Emissions Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 47 tons of flouride per rolling, 12-month period.

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the allowable hourly fluoride emission limitation (11 lbs/hr) by the actual annual hours of operation, and then dividing by 2,000 pounds per ton. This emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

s. Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

t. Emission Limitation:

sulfur content of the fuel of less than or equal to 0.5 percent

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping specified in section A.III.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of this permit and within 3 months prior to permit expiration, unless identical previous testing has been performed within the previous 12 months of issuance of this permit.

b. The emission testing shall be conducted for the furnace discharge to demonstrate compliance with the allowable mass emission rates for particulates (defined as the dry filter particulate catch obtained by a Method 5 test at 248 + or - 25 degrees Fahrenheit), CO, NOx, SO2, fluorides, and VOC.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for CO Method 10 of 40 CFR Part 60 Appendix A; for NOx, Method 7E of 40 CFR Part 60 Appendix A; for particulates, Method 5 of 40 CFR Part 60, Appendix A; for SO2, Method 6C of 40 CFR Part 60, Appendix A; for fluorides, Method 13B of 40 CFR Part 60, Appendix A; and for VOC, Method 25 or 25A of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. Since P001 and P013 use the same raw materials and share common control equipment, one emission test will be used to determine compliance for both emissions units. The test shall be conducted while both emissions units are operating at or near their maximum capacities. The permittee shall monitor the glass pull rate and natural gas usage of each glass furnace during the stack test and proportionally "split" the resultant pollutant emission rates determined during the stack testing, based upon the relative pull rate of each furnace.
Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the TDOES. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the TDOES's refusal to accept the results of the emission test(s).

Personnel from the TDOES shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the TDOES within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the TDOES.

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VI. **Miscellaneous Requirements**

1. None

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B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
glass melting furnace, oven 9211, natural gas and oxygen-fired Particulate emissions from the furnace are controlled by a fabric filter and fluoride emissions are controlled by a spray tower with a 50% caustic solution (NaOH). Forehearth emissions are uncontrolled and have been included in the emission limitations. Forming room emissions are uncontrolled and have been included in the emission limitations.		

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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

1. The permit to install for this emissions unit (P001) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

   Pollutant: methanol

   TLV (mg/m3): 262

   Maximum Hourly Emission Rate (lbs/hr): 1.0

   Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 547.1

   MAGLC (ug/m3): 6238

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied.

Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

3. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0448000012 Emissions Unit ID: P013 Issuance type: Title V Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Glass melting furnace, oven 9212, natural gas and oxygen-fired Particulate emissions from the furnace are controlled by a fabric filter and fluoride emissions are controlled by a spray tower with a 50% caustic solution (NaOH). Forehearth emissions are uncontrolled and have been included in the emission limitations. Forming room emissions are uncontrolled and have been included in the emission limitations.	OAC rule 3745-31-05(A)(3) (PTI 04-975)	8.2 lbs/hr of particulate emissions; 36 tpy of particulate emissions as a rolling, 12-month summation; and 1.3 lbs of particulate emissions per ton of glass pulled from all of the equipment comprising this emissions unit 18 lbs/hr of sulfur dioxide (SO2); 77 tpy of SO2 as a rolling, 12-month summation; and 2.8 lbs of SO2 per ton of glass pulled from all of the equipment comprising this emissions unit 22 lbs/hr of nitrogen oxides (NOx); 98 tpy of NOx as a rolling, 12-month summation; and 3.6 lbs of NOx per ton of glass pulled from all of the equipment comprising this emissions unit 2.1 lbs/hr of carbon monoxide (CO); 9.3 tpy of CO as a rolling, 12-month summation; and 0.34 lb of CO per ton of glass pulled from all of the equipment comprising this emissions unit 9.7 lbs/hr of volatile organic compounds (VOC); 43 tpy of VOC as a rolling, 12-month summation; and 1.5 lbs of VOC per ton of glass pulled from all of the equipment comprising this emissions unit 9.8 lbs/hr of fluorides; 43 tpy of fluorides as a rolling, 12-month summation; and 1.6 lbs of fluorides per ton of glass pulled from all of the equipment comprising this emissions unit 1.5 lbs/hr of methanol; 6.6 tpy of methanol as a rolling, 12-month summation; and 0.15 lb of methanol per ton of glass pulled from all of the equipment comprising this emissions unit See sections A.I.2.a, A.I.2.b, and A.I.2.c.
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	See section A.I.2.d.
	OAC rule 3745-18-06(E)	See section A.I.2.d.
	OAC rule 3745-21-08(B)	See section A.I.2.f.
	OAC rule 3745-23-06(B)	See section A.I.2.f.

2. **Additional Terms and Conditions**

   a. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

   b. The permittee shall only employ fuel in this emissions unit with a sulfur content that is less than or equal to 0.5 percent sulfur.

   c. The hourly methanol emission limitation was established by modeling and is greater than the potential to emit for this emissions unit; therefore, no monitoring, record keeping, reporting, or testing terms and conditions are necessary for this limitation.

   d. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

   e. The NaOH solution employed in the spray tower system shall be a minimum of 50% NaOH by volume.

   f. The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and

3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-975.

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II. **Operational Restrictions**

1. The maximum operating rate for this emissions unit shall not exceed 166 tons of glass pulled per day.

2. The permittee shall burn only natural gas as fuel in this emissions unit.

3. The permittee shall operate the baghouse and caustic spray tower system whenever this emissions unit is in operation.

4. The pressure drop across the baghouse shall be maintained within the range of 2.0 to 4.0 inches of water column while the emissions unit is in operation.

5. The flow rate of NaOH (50% by volume) to the spray tower system shall be greater than 16.7 gallons per hour or greater than the flow rate of the most recent stack test that demonstrated compliance.

6. The water flow rate to the spray tower system shall be greater than 200 gallons per hour or greater than the flow rate during the most recent stack test that demonstrated compliance.

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

1. The permittee shall maintain daily records of the glass pulled in this emissions unit, in tons.

2. 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.

3. The permittee shall maintain daily records of the volume of natural gas burned in the forehearth, in millions of standard cubic feet.

4. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

   The permittee shall collect and record the following information each day:

   a. the pressure drop across the baghouse, in inches of water, every 4 hours; and

   b. the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

   In the event that all bags are replaced simultaneously, the permittee shall record in a separate log the day the complete replacement is made and record every 8 hours the pressure drop across the baghouse until the minimum pressure drop is reached.

5. The permittee shall properly operate and maintain equipment to continuously monitor the NaOH flow rate and the water flow rate to the spray tower while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

   The permittee shall collect and record the following information each day:

   a. the gallons of the NaOH solution pumped to the spray tower system;

   b. the flow rate of water to the spray tower system, in gallons per hour;

   c. the total hours of operation of this emissions unit and the spray tower system;

   d. the average flow rate of NaOH to the spray tower system, in gallons per hour, i.e., (a)/(c); and

   e. the % of NaOH, by volume, in the NaOH solution pumped to the spray tower system.

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IV. **Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit.

2. The permittee shall submit quarterly deviation (excursion) reports that identify each day when the maximum glass pull rate limitation was exceeded in this emissions unit.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

4. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following spray tower parameters were not maintained at or above the required levels:

   a. the water flow rate to the spray tower system;

   b. the NaOH flow rate to the spray tower system; and

   c. the % NaOH, by volume, in the NaOH solution employed.

5. The quarterly deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

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V. **Testing Requirements**

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

   a. Emission Limitation:

      The combined emissions from all of the equipment comprising this emissions unit shall not exceed 8.2 lbs of particulate emissions per hour.

      Applicable Compliance Methods:

      If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 5 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(10).

   b. Emission Limitation:

      The combined emissions from all of the equipment comprising this emissions unit shall not exceed 1.3 lbs of particulate emissions per ton of glass pulled.

      Applicable Compliance Methods:

      If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 5 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(10).

   c. Emission Limitation:

      The combined emissions from all of the equipment comprising this emissions unit shall not exceed 36 tons of particulate emissions per rolling, 12-month period.

      Applicable Compliance Method:

      Compliance may be demonstrated by multiplying the allowable hourly particulate emission limitation (8.2 lbs/hr) by the actual annual hours of operation, and then dividing by 2,000 pounds per ton. This emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

   d. Emission Limitation:

      The combined emissions from all of the equipment comprising this emissions unit shall not exceed 2.1 lbs of CO per hour.

      Applicable Compliance Methods:

      If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with the methods and procedures of Method 10 of 40 CFR Part 60 Appendix A. (The forming operations do not contribute to the CO emissions.)

   e. Emission Limitation:

      The combined emissions from all of the equipment comprising this emissions unit shall not exceed 0.34 lb of CO per ton of glass pulled.

      Applicable Compliance Methods:

      If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with the methods and procedures of Method 10 of 40 CFR Part 60 Appendix A. (The forming operations do not contribute to the CO emissions.)

   f. Emission Limitation:

      The combined emissions from all of the equipment comprising this emissions unit shall not exceed 9.3

tons of CO per rolling, 12-month period.

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the allowable hourly CO emission limitation (2.1 lbs/hr) by the actual annual hours of operation, and then dividing by 2,000 pounds per ton. This emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

g. Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 22 lbs/hr of NOx.

Applicable Compliance Methods:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with the methods and procedures of Method 7 of 40 CFR Part 60 Appendix A. (The forming operations do not contribute to the NOx emissions.)

h. Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 3.6 lbs of NOx per ton of glass pulled.

Applicable Compliance Methods:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with the methods and procedures of Method 7 of 40 CFR Part 60 Appendix A. (The forming operations do not contribute to the NOx emissions.)

i. mission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 98 tons of NOx per rolling, 12-month period.

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the allowable hourly NOx emission limitation (22 lbs/hr) by the actual annual hours of operation, and then dividing by 2,000 pounds per ton. This emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

j. Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 18 lbs/hr of SO2.

Applicable Compliance Methods:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with the methods and procedures of Method 6 of 40 CFR Part 60 Appendix A. (The forming operations do not contribute to the SO2 emissions.)

k. Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 2.8 lbs of SO2 per ton of glass pulled.

Applicable Compliance Methods:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with the methods and procedures of Method 6 of 40 CFR Part 60 Appendix A. (The forming operations do not contribute to the SO2 emissions.)

l. Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 77 tons of SO2 per rolling, 12-month period.

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the allowable hourly SO2 emission limitation (18 lbs/hr) by the actual annual hours of operation, and then dividing by 2,000 pounds per ton. This emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

m. Emission Limitations:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 9.7 lbs/hr of VOC.

Applicable Compliance Methods:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed, as appropriate, in accordance with Method 25 or 25A of 40 CFR Part 60, Appendix A.

n. Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 1.5 lbs of VOC per ton of glass pulled.

Applicable Compliance Methods:

If required, compliance shall be demonstrated based upon emission testing performed in accordance with the methods and procedures of Method 25 of 40 CFR Part 60 Appendix A.

o. Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 43 tons of VOC per rolling, 12-month period.

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the allowable hourly VOC emission limitation (9.7 lbs/hr) by the actual annual hours of operation, and then dividing by 2,000 pounds per ton. This emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

p. Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 9.8 lbs of fluoride emissions per hour.

Applicable Compliance Methods:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 13B of 40 CFR Part 60, Appendix A.

q. Emission Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 1.6 lbs of fluoride emissions per ton of glass pulled.

Applicable Compliance Methods:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 13B of 40 CFR Part 60 Appendix A.

r. Emissions Limitation:

The combined emissions from all of the equipment comprising this emissions unit shall not exceed 43 tons of flouride per rolling, 12-month period.

Applicable Compliance Method:

Compliance may be demonstrated by multiplying the allowable hourly fluoride emission limitation (9.8 lbs/hr) by the actual annual hours of operation, and then dividing by 2,000 pounds per ton. This emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, provided compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

s. Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

t. Emission Limitation:

sulfur content of the fuel of less than or equal to 0.5 percent

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping specified in section A.III.2.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of this permit and within 3 months prior to permit expiration, unless identical previous testing has been performed within the previous 12 months of issuance of this permit.

b. The emission testing shall be conducted for the furnace discharge to demonstrate compliance with the allowable mass emission rates for particulates (defined as the dry filter particulate catch obtained by a Method 5 test at 248 + or - 25 degrees Fahrenheit), CO, NOx, SO2, fluorides, and VOC.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for CO Method 10 of 40 CFR Part 60 Appendix A; for NOx, Method 7E of 40 CFR Part 60 Appendix A; for particulates, Method 5 of 40 CFR Part 60, Appendix A; for SO2, Method 6C of 40 CFR Part 60, Appendix A; for fluorides, Method 13B of 40 CFR Part 60, Appendix A; and for VOC, Method 25 or 25A of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. Since P001 and P013 use the same raw materials and share common control equipment, one emission test will be used to determine compliance for both emissions units. The test shall be conducted while both emissions units are operating at or near their maximum capacities. The permittee shall monitor the glass pull rate and natural gas usage of each glass furnace during the stack test and proportionally "split" the resultant pollutant emission rates determined during the stack testing, based upon the relative pull rate of each furnace.
Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the TDOES. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the TDOES's refusal to accept the results of the emission test(s).

Personnel from the TDOES shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the TDOES within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the TDOES.

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0448000012 Emissions Unit ID: P013 Issuance type: Title V Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
glass melting furnace, oven 9211, natural gas and oxygen-fired		

Particulate emissions from the furnace are controlled by a fabric filter and fluoride emissions are controlled by a spray tower with a 50% caustic solution (NaOH).

Forehearth emissions are uncontrolled and have been included in the emission limitations.

Forming room emissions are uncontrolled and have been included in the emission limitations.

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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

1. The permit to install for this emissions unit (P001) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

   Pollutant: methanol

   TLV (mg/m3): 262

   Maximum Hourly Emission Rate (lbs/hr): 1.5

   Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 821

   MAGLC (ug/m3): 6238

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

   a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;

   b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

   c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

   If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

3. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

   a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

   b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

   c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0448000012 Emissions Unit ID: P015 Issuance type: Title V Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Wet fiberglass mat line (comprised of the wet mat conveyor, mat oven dryer, and edgetrim bailer) controlled with a catalytic thermal oxidizer (RCO) and a baghouse. The mat line oven exhaust must be vented to the RCO. The edgetrim bailer exhaust must be vented to the baghouse.	OAC rule 3745-31-05(A)(3) (PTI 04-306)	2.35 lbs/hr of particulate emissions 10.29 tpy of particulate emissions See section A.I.2.b.
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	See section A.I.2.a.
	OAC rule 3745-18-06(E)	496.8 lbs/hr of sulfur dioxide (SO2) See section A.I.2.e.
	OAC rule 3745-21-07(G)(3)	See section A.I.2.g.
	OAC rule 3745-21-07(G)(6)	See section A.I.2.h.
	OAC rule 3745-21-08(B)	See section A.I.2.f.
	OAC rule 3745-23-06(B)	See section A.I.2.f.
	40 CFR Part 63, Subpart HHHH	See sections A.I.2.c and A.I.2.d.

2. **Additional Terms and Conditions**

a. The emission limitation established pursuant to this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

b. The requirements of this rule include compliance with the requirements of OAC rules 3745-17-07(A)(1), 3745-18-06(E), 3745-21-08(B), and 3745-23-06(B).

c. [40 CFR 63.2985]
The permittee shall comply with the requirements of the emission limitations and work practice standards for existing sources in 40 CFR Part 63, Subpart HHHH by no later than April 11, 2005. The requirements of 40 CFR Part 63, Subpart HHHH are identified at the beginning of each applicable term and condition with a Part 63 reference in brackets.

d. [40 CFR 63.2983]
The permittee shall reduce uncontrolled formaldehyde emissions from the mat oven by at least 96%.

e. The actual SO2 emissions are the result of the combustion of natural gas, and are negligible.

f. The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-306.

g. The organic compound (OC) emissions from the mat oven dryer shall be reduced by an overall control efficiency of at least 85%.

h. The permittee shall maintain the OC destruction efficiency of the RCO at 90% or greater whenever this emissions unit is in operation.

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II. **Operational Restrictions**

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance. The average temperature difference across the catalyst bed, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance.

   NOTE: This term and condition shall be applicable until 40 CFR Part 63, Subpart HHHH becomes effective on April 11, 2005. On that date, the permittee shall comply with section A.II.5.

3. The pressure drop across the baghouse shall be maintained within the range of 2 to 6 inches of water while the emissions unit is in operation.

4. [40 CFR 63.2984(a)]
   The permittee shall maintain operating parameters within the established limits or ranges specified in the operation, maintenance, and monitoring (OMM) plan as described in 40 CFR 63.2987. If there is a deviation of any of the specified parameters from the limit or range specified in the OMM plan, the permittee shall address the deviation according to section A.II.9. The permittee shall comply with the operating limits specified in sections A.II.5 through A.II.11.

5. [40 CFR 63.2984(a)(1)]
   The permittee shall operate the catalytic thermal oxidizer so that the average operating temperature in any 3-hour block period does not fall below the temperature established during the performance test and specified in the OMM plan.

6. [40 CFR 63.2984(a)(2)]
   The permittee shall not use a resin with a free-formaldehyde content greater than that of the resin used during the most recent performance test that demonstrated compliance and as specified in the OMM plan.

7. [40 CFR 63.2984(a)(3)]
   The permittee shall operate the wet-formed fiberglass mat production process so that the average urea formaldehyde resin solids application rate in any 3-hour block period does not exceed the average application rate achieved during the most recent performance test that demonstrated compliance and as specified in the OMM plan.

8. [40 CFR 63.2984(a)(4)]
   If the permittee uses an add-on control device other than a thermal oxidizer or wish to monitor an alternative parameter and comply with a different operating limit, the permittee shall obtain approval for the alternative monitoring under 40 CFR 63.8(f). The permittee shall include the approved alternative monitoring and operating limits in the OMM plan as specified in 40 CFR 63.2987.

9. [40 CFR 63.2984(b)]
   When during a period of normal operations the permittee detects that an operating parameter deviates from the limit or range established in section A.II.4, the permittee shall initiate corrective actions within 1 hour according to the provisions of the OMM plan. During periods of start up, shut down, or malfunction the permittee shall follow the startup, shutdown, and malfunction plan (SSMP). The corrective action actions shall be completed in an expeditious manner as specified in the OMM plan or SSMP.

10. [40 CFR 63.2984(d)]
    The permittee shall include the operating limits or ranges specified in sections A.II.5 through A.II.8 in the OMM plan. The permittee shall develop an OMM plan and operate according to the OMM plan at all times.

11. [40 CFR 63.2984(e)]
If the permittee uses a thermal oxidizer or other control device to achieve the emission limits in 40 CFR 63.2983, the permittee shall capture and convey the formaldehyde emissions from each drying and curing oven according to the procedures in chapters 3 and 5 of "Industrial Ventilation: A Manual of Recommended Practice" (23rd Edition). This publication is incorporated by reference in 40 CFR 63.3003.

12. [40 CFR 63.2986(b)]
The permittee shall comply with the limits specified in 40 CFR 63.2984. The operating limits in 40 CFR 63.2984 prescribe the requirements for demonstrating continuous compliance based on the OMM plan. The permittee shall begin complying with the operating limits on the date by which the permittee must complete the initial performance test.

13. [40 CFR 63.2986(e)]
The permittee shall prepare and follow a written OMM plan as specified in section A.III.18 (40 CFR 63.2987).

14. [40 CFR 63.2986(g)]
The permittee shall comply with the requirements specified below.

a. The permittee shall be in compliance with the emission limit in section A.I.2.d (40 CFR 63.2983) and the operating limits in sections A.II.4 through A.II.11 (40 CFR 63.2984) at all times, except during periods of startup, shutdown, or malfunction.

b. The permittee shall always operate and maintain this emissions unit, including air pollution control and monitoring equipment, according to the provisions in 40 CFR 63.6(e)(1).

c. The permittee shall develop and implement a written SSMP according to the provisions in 40 CFR 63.6 (e)(3). The SSMP must address the startup, shutdown, and corrective actions taken for malfunctioning process and air pollution control equipment.

15. The permittee shall not employ photochemically reactive materials in this emissions unit.

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III. **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.

2. The permittee shall operate and maintain continuous temperature monitors and recorder(s) which measure and record(s) the temperature immediately upstream and downstream of the incinerator's catalyst bed when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitors and recorder(s) shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information each day:

a. all 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was less than 800 degrees Fahrenheit;

b. all 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference during the most recent emission test that demonstrated the emissions unit was in compliance; and

c. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

3. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse every 4 hours.

4. The permittee shall record any use of photochemically reactive material in this emisions unit.

5. [40 CFR 63.2996]
The permittee shall monitor the urea-formaldehyde resin solids application rate. On each day of operation, the permittee shall calculate and record the average lb/hr application rate for each product manufactured during that day.

6. [40 CFR 63.2996]
The permittee shall monitor the resin free-formaldehyde content for each lot of resin purchased. The permittee shall measure (in accordance with 40 CFR Part 63, Subpart HHHH, Appendix A) and record the value for each lot used during the operating day.

7. [40 CFR 63.2996]
The permittee shall monitor the loss-on-ignition (as defined in 40 CFR 63.3004). The permittee shall measure (in accordance with 40 CFR Part 63, Subpart HHHH, Appendix B) and record the loss-on-ignition at least once per day, for each product manufactured during that day.

8. [40 CFR 63.2996]
The permittee shall monitor the UF-to-latex ratio in the binder. The permittee shall measure and record, for

each batch of binder prepared during the operating day, the value of the UF-to-latex ratio.

9. [40 CFR 63.2996]
The permittee shall monitor the weight of the final mat produced per square (lb/roofing square). The permittee shall measure and record this parameter for each product manufactured during the operating day.

10. [40 CFR 63.2996]
The permittee shall monitor the average nonwoven wet-formed fiberglass mat production rate (roofing squares per the hour). The average value for each product shall be recorded for each product manufactured during the operating day.

11. [40 CFR 63.2996]
The permittee shall monitor any other parameters, in addition to sections A.III.5 through A.III.10, that are specified in the OMM plan.

12. [40 CFR 63.2984(c)]
The permittee shall maintain and inspect control devices according to the procedures specified in the OMM plan.

13. [40 CFR 63.2998]
The permittee shall maintain records according to the procedures specified in 40 CFR 63.10.

The permittee shall maintain the following records for this emissions unit:

a. All records required by 40 CFR 63.10. Table 2 of 40 CFR Part 63, Subpart HHHH presents the applicable requirements of the general provisions.

b. The OMM plan.

c. Records of values of monitored parameters listed in table 1 of 40 CFR Part 63, Subpart HHHH to show continuous compliance with each operating limit specified in table 1 of 40 CFR Part 63, Subpart HHHH.

d. Records of maintenance and inspections performed on the control devices.

e. If an operating parameter deviation occurs, the permittee shall record the following information:

i. the date, time, and duration of the operating parameter deviation;
ii. a brief description of the cause of the operating parameter deviation;
iii. the dates and times at which corrective actions were initiated and completed;
iv. a brief description of the corrective actions taken to return the parameter to the limit or to within the range specified in the OMM plan; and
v. a record of whether the deviation occurred during a period of startup, shutdown, or malfunction.

f. The permittee shall maintain all of the records specified in 40 CFR 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

g. If you operate your process or control device under alternative operating condition and have established operating limits for each condition as specified in 40 CFR 63.2989(c), then you must keep records of the date and time you changed operations from one condition to another, the condition under which you are operating, and the applicable operating limits for that condition.

14. [40 CFR 63.2999]
a. The permittee shall maintain each record required by this permit and 40 CFR Part 63, Subpart HHHH for 5 years. The permittee shall maintain the most recent 2 years of records at the facility. The remaining 3 years of records may be retained offsite.

b. The permittee shall maintain records in a readily available format that can be easily inspected and reviewed. The permittee may keep the records on paper or an alternative media, such as microfilm, computer, computer disks, magnetic tape, or on microfiche.

15. [40 CFR 63.2986(a)]
The permittee shall maintain and operate a thermal oxidizer or other control device or implement a process modification that reduces formaldehyde emissions from each drying and curing oven to the emission limits specified in section A.I.2.d (40 CFR 63.2983).

16. [40 CFR 63.2986(d)]
The permittee shall install, calibrate, maintain, and operate devices that monitor the parameters specified in the OMM plan at the frequency specified in the plan. All continuous parameter monitoring systems must be installed and operating no later than the applicable compliance date specified in section A.I.2.c (40 CFR 63.2985).

17. [40 CFR 63.2986(f)]
The permittee shall comply with the monitoring, record keeping, notification, and reporting requirements of 40 CFR Part 63, Subpart HHHH as specified in sections A.III and A.IV and as required by 40 CFR 63.2996 through 63.3000.

18. [40 CFR 63.2987(a)]
a. The permittee shall, in the OMM, prescribe the monitoring that will be performed to ensure compliance with the emission limitations. Minimum monitoring requirements are listed in table 1 of 40 CFR Part 63, Subpart HHHH. The OMM plan must specify the items listed below:

i. Each process and control device to be monitored, the type of monitoring device that will be used, and the operating parameters that will be monitored.

ii. A monitoring schedule that specifies the frequency that the parameter values will be determined and recorded.

iii. The operating limits or ranges for each parameter that represent continuous compliance with the emission limit in section A.I.2.d (40 CFR 63.2983). Operating limits and ranges must be based on values of the monitored parameters recorded during performance tests.
[40 CFR 63.2987(b)]
b. The permittee shall establish routine and long-term maintenance and inspection schedules for each control device. The permittee shall incorporate in the schedules the control device manufacturer's recommendations for maintenance and inspections or equivalent procedures. If a thermal oxidizer is used, the maintenance schedule must include procedures for annual or more frequent inspection of the thermal oxidizer to ensure that the structural and design integrity of the combustion chamber is maintained. At a minimum, the permittee shall meet the requirements specified below:

i. Inspect all burners, pilot assemblies, and pilot sensing devices for proper operation. Clean pilot sensor if necessary.

ii. Ensure proper adjustment of combustion air and adjust if necessary.

iii. Inspect, when possible, all internal structures (such as baffles) to ensure structural integrity per the design specifications.

iv. Inspect dampers, fans, and blowers for proper operation.

v. Inspect motors for proper operation.

vi. Inspect, when possible, combustion chamber refractory lining. Clean and repair or replace lining if necessary.

vii. Inspect the thermal oxidizer shell for proper sealing, corrosion, and hot spots.

viii. For the burn cycle that follows the inspection, document that the thermal oxidizer is operating properly and make any necessary adjustments.

ix. Generally observe whether the equipment is maintained in good operating condition.

x. Complete all necessary repairs as soon as practicable.
[40 CFR 63.2987(c)]
c. The permittee shall establish procedures for responding to operating parameter deviations. At a minimum, the procedures must include the information specified below:

i. Procedures for determining the cause of the operating parameter deviation.

ii. Actions for correcting the deviation and returning the operating parameters to the allowable ranges or limits.

iii. Procedures for recording the date and time that the deviation began and ended, and the times corrective actions were initiated and completed.
[40 CFR 63.2987(d)]
d. The OMM plan must specify the record keeping procedures to document compliance with the emissions and operating limits. Table 1 of 40 CFR Part 63, Subpart HHHH establishes the minimum record keeping requirements.

19. [40 CFR 63.2989a]
Changes to the operating limits or ranges in the OMM plan require a new performance test.

a. In order to revise the ranges or levels established for the operating limits specified in sections A.II.4 through A.II.11 (40 CFR 63.2984), the permittee shall meet the following:

i. Submit a notification of performance test to the Administrator as specified in 40 CFR 63.7(b) to revise the operating ranges or limits.

ii. After completing the performance test to demonstrate that compliance with the emission limit can be achieved at the revised levels of the operating limits, the permittee shall submit the performance test results and the revised operating limits as part of the notification of compliance status required under 40 CFR 63.9 (h).

[40 CFR 63.2989b]
b. If the permittee is only revising the inspection and maintenance procedures in the OMM plan that are specified in section A.III.18.b (40 CFR 63.2987(b)), there is no need to conduct a new performance test.
[40 CFR 63.2989c]
c. If the permittee plans to operate this emissions unit or control device under alternative operating conditions and does not wish to revise the OMM plan for this emissions unit when a change in operating conditions is made, the permittee shall perform a separate compliance test to establish operating limits for each condition. The permittee can then include the operating limits for each condition in the OMM plan. After completing the performance tests, the permittee shall record the date and time when the change in operations from one condition to another was made, the condition under which the emissions unit is operating, and the operating limits that apply under that condition. If the permittee can perform a single performance test that establishes the most stringent operating limits that cover all alternative operating conditions, then the permittee does not need to comply with the provisions of this paragraph.

20. [40 CFR 63.2994(a)]
a. Before conducting the performance test, the permittee shall take the steps listed in sections A.III.20.a.i and A.III.20.a.ii:.

i. Install and calibrate all process equipment, control devices, and monitoring equipment.

ii. Conduct a performance evaluation of the continuous monitoring system (CMS) according to 40 CFR 63.8

(e) which specifies the general requirements and requirements for notifications, the site-specific performance evaluation plan, conduct of the performance evaluation, and reporting of performance evaluation results.
[40 CFR 63.2994(b)]
b. If this emissions unit is controlled by use of a thermal oxidizer, the temperature monitoring device must meet the performance and equipment specifications listed in sections A.III.20.b.i through A.III.20.b.iii:

i. The temperature monitoring device must be installed either at the exit of the combustion zone of each thermal oxidizer, or at the location specified by the manufacturer. The temperature monitoring device must also be installed in a location before any heat recovery or heat exchange equipment, and it must remain in the same location for both the performance test and the continuous monitoring of temperature.

ii. The recorder response range must include zero and 1.5 times the average temperature required in section A.II.5 (40 CFR 63.2984(a)(1)).

iii. The measurement method or reference method for calibration must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or an alternate reference subject to the approval of the Administrator.

21. [40 CFR 63.2997(a)]
a. If formaldehyde emissions are controlled using a thermal oxidizer, the permittee shall meet the requirements in sections A.III.21.a.i and A.III.21.a.ii.

i. Install, calibrate, maintain, and operate a device to monitor and record continuously the thermal oxidizer temperature at the exit of the combustion zone before any substantial heat exchange occurs or at the location consistent with the manufacturer's recommendations.

ii. Continuously monitor the thermal oxidizer temperature and determine and record the average temperature in 15-minute and 3-hour block averages. The permittee may determine the average temperature more frequently than every 15 minutes and every 3 hours, but not less frequently.
[40 CFR 63.2997(b)]
b. If formaldehyde emissions are controlled by process modifications or a control device other than a thermal oxidizer, the permittee shall install, calibrate, maintain, and operate devices to monitor the parameters established in the OMM plan at the frequency established in the plan.

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IV. **Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit.

2. The permittee shall submit deviation (excursion) reports that identify all 3-hour blocks of time when the emissions unit was in operation during which the average temperature of the exhaust gases immediately before the catalyst bed or the average temperature difference across the catalyst bed did not comply with the temperature limitations specified above.

3. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

4. The permittee shall notify the Toledo Division of Environmental Services, in writing, within 24 hours if any photochemically reactive materials are used in this emissions unit.

5. [40 CFR 63.3000]
The permittee shall submit all notifications and reports required by the applicable general provisions and this section. Table 2 of 40 CFR Part 63, Subpart HHHH presents the applicable requirements of the general provisions.

6. [40 CFR 63.3000]
The permittee shall submit the notification of compliance status, including the performance test results, the operating limits or ranges as determined during the performance test, and other information specified in 40 CFR 63.9(h), before the close of business on the 60th calendar day after completing the performance test according to 40 CFR 63.10(d)(2).

7. [40 CFR 63.3000]
The permittee shall submit semiannual compliance reports according to the requirements of sections A.IV.7.a through A.IV.7.e.

a. Unless the Administrator has agreed to a different schedule for submitting reports under 40 CFR 63.10 (a), the permittee shall deliver or postmark each semiannual compliance report no later than 30 days following the end of each semiannual reporting period. The first semiannual reporting period begins on the compliance date for the affected source and ends on June 30 or December 31, whichever date immediately follows the compliance date. Each subsequent semiannual reporting period for which the permittee shall submit a semiannual compliance report begins on July 1 or January 1 and ends 6 calendar months later. As required by 40 CFR 63.10(e)(3), the permittee shall begin submitting quarterly compliance reports if the permittee deviates from the emission limit in section A.I.2.d (40 CFR 63.2983) or the operating limits in sections A.II.5 through A.II.11 (40 CFR 63.2984).
b. For each affected source that is subject to permitting regulations pursuant to 40 CFR Part 70 or 71, and for which the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A), the permittee may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in section A.IV.7.a.

c. The semiannual compliance report must contain the information in sections A.IV.7.c.i through A.IV.7.c.vi:

i. company name and address;
ii. statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report;
iii. date of the report and beginning and ending dates of the reporting period;
iv. a summary of the total duration of continuous parameter monitoring system downtime during the semiannual reporting period and the total duration of continuous parameter monitoring system downtime as a percent of the total source operating time during that semiannual reporting period;
v. the date of the latest continuous parameter monitoring system certification or audit; and
vi. a description of any changes in the wet-formed fiberglass mat manufacturing process, continuous parameter monitoring system, or add-on control device since the last semiannual reporting period.

d. If there were no deviations from the emission limit in section A.I.2.d (40 CFR 63.2983) or the operating limits in sections A.II.5 through A.II.11 (40 CFR 63.2984), the semiannual compliance report must include a statement to that effect. If there were no periods during which the continuous parameter monitoring systems were out-of-control as specified in 40 CFR 63.8(c)(7), the semiannual compliance report must include a statement to that effect.
e. If there was a deviation from the emission limit in section A.I.2.d (40 CFR 63.2983) or an operating limit in sections A.II.5 through A.II.11 (40 CFR 63.2984), the semiannual compliance report must contain the information specified in sections A.IV.7.e.i through A.IV.7.e.ix:

i. the date and time that each malfunction started and stopped;
ii. the date and time that each continuous parameter monitoring system was inoperative, except for zero (low-level) and high-level checks;
iii. the date, time, and duration that each continuous parameter monitoring system was out-of-control, including the information in 40 CFR 63.8(c)(8);
iv. the date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period;
v. the date and time that corrective actions were taken, a description of the cause of the deviation, and a description of the corrective actions taken;
vi. a summary of the total duration of each deviation during the semiannual reporting period and the total duration as a percent of the total source operating time during that semiannual reporting period;
vii. a breakdown of the total duration of the deviations during the semiannual reporting period into those that were due to startup, shutdown, control equipment problems, process problems, other known causes and other unknown causes;
viii. a brief description of the process units; and
ix. a brief description of the continuous parameter monitoring system.

8. [40 CFR 63.3000]
The permittee shall submit reports of performance test results for add-on control devices no later than 60 days after completing the tests as specified in 40 CFR 63.10(d)(2). The permittee shall include in the performance test reports the values measured during the performance test for the parameters listed in table 1 of 40 CFR Part 63, Subpart HHHH and the operating limits or ranges to be included in the OMM plan for this emissions unit. If the permittee complies by use of a thermal oxidizer, the permittee shall include 15-minute thermal oxidizer temperature averages and the average for the three 1-hour test runs.

9. [40 CFR 63.3000]
If this emissions unit has a startup, shutdown, or malfunction during the semiannual reporting period, the permittee shall submit the reports specified in 40 CFR 63.10(d)(5).

10. [40 CFR 63.2990]
With the approval of the Administrator, the permittee may conduct short-term experimental production runs during which this emissions unit's operating parameters deviate from the operating limits. Experimental runs may include, but are not limited to, runs using resin with a higher free-formaldehyde content than specified in the OMM plan, or using experimental pollution prevention techniques. To conduct a short-term experimental production run, the permittee shall complete the requirements specified in sections A.IV.10.a and A.IV.10.b.
[40 CFR 63.2990a]

a. Prepare an application to the Administrator for approval to conduct the experimental production runs. This application must include the items listed in sections A.IV.10.a.i through A.IV.10.a.vi:

i. the purpose of the experimental production run;

ii. identification of the affected line;

iii. an explanation of how the operating parameters will deviate from the previously approved ranges and limits;

iv. the duration of the experimental production run;

v. the date and time of the experimental production run; and

vi. a description of any emission testing to be performed during the experimental production run.
[40 CFR 63.2990b]
b. The permittee shall submit the application to the Administrator for approval at least 30 days before the permittee conducts the experimental production run.
[40 CFR 63.2990c]
c. If the permittee conducts such experimental production runs without first receiving approval from the Administrator, then the permittee shall conduct a performance test under those same experimental production run conditions to show that the permittee was in compliance with the formaldehyde emission limit in section A.I.2.d (40 CFR 63.2983).

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V. **Testing Requirements**

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

a. Emission Limitation:

2.35 lbs/hr of particulate emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the emission testing methods and procedures specified in section A.V.2.

b. Emission Limitation:

10.29 tpy of particulate emissions

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable particulate emission limitation (2.35 lbs/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton. Therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

c. Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rule 3745-17-03(B)(1).

d. Emission Limitation:

496.8 lbs/hr of SO2

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the emission testing methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

e. Emission Limitation:

uncontrolled formaldehyde emissions from the mat oven reduced by at least 96%

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirments specified in sections A.V.2 and A.V.5 through A.V.8.

f. Emission Limitation:

The organic compound (OC) emissions from the mat oven dryer shall be reduced by an overall control efficiency of at least 85%.

The permittee shall maintain the OC destruction efficiency of the RCO at 90% or greater whenever this emissions unit is in operation.

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the emission testing methods and procedures specified in section A.V.3.

2. [40 CFR 63.2991]
The permittee shall conduct or have conducted a performance test for each drying and curing oven subject to 40 CFR Part 63, Subpart HHHH according to the provisions in sections A.V.2.a through A.V.2.c:

a. The permittee shall conduct, or have conducted, an initial performance test no later than 180 days after the applicable compliance date specified in section A.I.2.c (40 CFR 63.2985). The initial performance test shall be used to demonstrate initial compliance and establish operating parameter limits and ranges to be used to demonstrate continuous compliance with the emission standards.

b. The permittee shall conduct, or have conducted, a performance test every 5 years as part of renewing the 40 CFR Part 70 operating permit.

c. The permittee shall conduct, or have conducted, a performance test according to the requirements specified in section A.V.6 (40 CFR 63.2992) to change the limit or range for any operating limit specified in the OMM plan established during a previous compliance test.

3. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 6 months after issuance of this permit and within 6 months prior to permit expiration, unless identical previous testing have been performed within 12 months of the issuance of this permit.

b. The emission testing shall be conducted for all equipment comprising this emissions unit to demonstrate compliance with the allowable mass emission rate for particulates, the 85% overall control efficiency, and the 90% destruction efficiency for the RCO.

c. The following test methods shall be employed to demonstrate compliance with the allowable mass emission rates: for particulates, Methods 1 through 5 of 40 CFR Part 60, Appendix A and for VOC, Method 25 or 25A of 40 CFR Part 60, Appendix A. The test method(s) which must be employed to demonstrate compliance with the overall controll efficiency limitation for VOC are specified below. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.
e. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

4. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the TDOES. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the TDOES's refusal to accept the results of the emission test(s).

Personnel from the TDOES shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the TDOES within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the TDOES.

5. [40 CFR 63.2986(c)]
The permittee shall conduct a performance test according to 40 CFR 63.2991, 63.2992, and 63.2993 to demonstrate compliance for each drying and curing oven subject to the emission limit specified in section A.I.2.d (40 CFR 63.2983), and to establish or modify the operating limits or ranges for process or control device parameters that will be monitored to demonstrate continuous compliance.

6. [40 CFR 63.2992]

a. The permittee shall verify the performance of monitoring equipment as specified in section A.III.20 (40 CFR 63.2994) before performing the test.

b. The permittee shall conduct the performance test according to the procedures in 40 CFR 63.7.

c. The permittee shall conduct the performance test under the following conditions:

i. The resin must have the highest specified free-formaldehyde content that will be used.

ii. The permittee shall operate at the maximum feasible urea-formaldehyde resin solids application rate (pounds urea-formaldehyde resin solids applied per hour) that will be used.

d. During the performance test, the permittee shall monitor and record the operating parameters that will be used to demonstrate continuous compliance after the test. These parameters are listed in table 1 of 40 CFR Part 63, Subpart HHHH.

e. The permittee shall not conduct performance tests during periods of startup, shutdown, or malfunction as specified in 40 CFR 63.7(e)(1).

f. The permittee shall conduct three separate test runs for each performance test as specified in 40 CFR 63.7(e)(3), and each test run shall last at least 1 hour.

7. [40 CFR 63.2993]
The permittee shall:

a. use EPA Method 1 (40 CFR Part 60, Appendix A) for selecting the sampling port location and the number of sampling ports;

b. use EPA Method 2 (40 CFR Part 60, Appendix A) for measuring the volumetric flow rate;

c. use EPA Method 316 or 318 (40 CFR Part 63, Appendix A) for measuring the concentration of formaldehyde;

d. use the method contained in Appendix A of 40 CFR Part 63, Subpart HHHH or the resin purchase specification and the vendor specification sheet for each resin lot for determining the free-formaldehyde content in the urea-formaldehyde resin; and

e. use the method in Appendix B of 40 CFR Part 63, Supart HHHH for determining product loss-on-ignition.

8. [40 CFR 63.2995a]
a. Percent reduction for formaldehyde. To determine compliance with the percent reduction formaldehyde emission standard, the permitte shall use equation 1 of 40 CFR 63.2995 as follows:

Ef = [(Mi - Mo)/Mi]* 100 (Eq.1)

where:

Ef = formaldehyde control efficiency, in percent;

Mi = mass flow rate of formaldehyde entering the control device, in kilograms (pounds) per hour; and

Mo = mass flow rate of formaldehyde exiting the control device, in kilograms (pounds) per hour.
[40 CFR 63.2995b]
b. Formaldehyde mass emissions rate. To determine compliance with the kilogram per megagram (pound per ton) formaldehyde emission standard, the permittee shall use equation 2 of 40 CFR 63.2995 as follows:

E = M/P (Eq.2)

where:

E = formaldehyde mass emissions rate, in kilograms (pounds) of formaldehyde per megagram (ton) of fiberglass mat produced;

M = formaldehyde mass emissions rate, in kilograms (pounds) per hour; and

P = the wet-formed fiberglass mat production rate during the emissions sampling period, including any material trimmed from the final product, in megagrams (tons) per hour.
[40 CFR 63.2995c]
c. Urea-formaldehyde (UF) resin solids application rate. To determine the UF resin solids application rate, the permittee shall use equation 3 of 40 CFR 63.2995 as follows:

(UF Solids)/Hour = LOI * UFL * MW * SQ (Eq.3)

where:

UF solids/hour = UF resin solids application rate, in pounds per hour;

LOI = loss on ignition (weight faction), or pound of organic binder per pound of mat;

UFL = UF-to-latex ratio in the binder (mass fraction of UF resin solids in total combined resin solids for UF and latex), or pound of UF solids per pound of total resin solids (UF and latex);

MW = weight of the final mat per square, in pounds per roofing square; and

SQ = roofing squares produced per hour.

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VI. **Miscellaneous Requirements**

1. [40 CFR 63.2984(d)]
The permittee shall develop an OMM plan according to 40 CFR 63.2987 and operate this emissions unit at all times according to this plan.

2. [40 CFR 63.2986(g)]
The permittee shall develop and implement a written SSMP according to the provisions in 40 CFR 63.6(e)(3). The SSMP must address the startup, shutdown, and corrective actions taken for malfunctioning process and air pollution control equipment.

3. [40 CFR 63.3001]
The permittee shall comply with the requirements of the general provisions of 40 CFR Part 63, Subpart A, as specified in table 2 of 40 CFR Part 63, Subpart HHHH.

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Facility ID: 0448000012 Emissions Unit ID: P015 Issuance type: Title V Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0448000012 Emissions Unit ID: P017 Issuance type: Title V Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Enclosed precrusher, hammer mill and fluid bed dryer for scrap fiberglass recycling for direct melt furnace 9212, with exhaust gas from dryer vented and controlled by a baghouse.	OAC rule 3745-31-05(A)(3) (PTI 04-360)	1.46 lbs/hr of particulate emissions 6.40 tpy of particulate emissions See section A.I.2.a.
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11(B)(1)	See section A.I.2.b.
	OAC rule 3745-18-06(E)	293.0 lbs/hr of sulfur dioxide (SO2) See section A.I.2.d.
	OAC rule 3745-21-08(B)	See section A.I.2.c.
	OAC rule 3745-23-06(B)	See section A.I.2.c.

2. **Additional Terms and Conditions**

a. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07 (A)(1), 3745-18-06(E), 3745-21-08(B), and 3745-23-06(B).

b. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

c. The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-360.

d. The actual SO2 emissions are the result of the combustion of natural gas, and are negligible.

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II. **Operational Restrictions**

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the baghouse shall be maintained within the range of 2 to 8 inches of water while the emissions unit is in operation.

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III. **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.

2. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.

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IV. **Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit.

2. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

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V. **Testing Requirements**

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

a. Emission Limitation:

1.46 lbs/hr of particulate emissions

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon emission testing performed in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(10).

b. Emission Limitation:

6.40 tpy of particulate emissions

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable particulate emission limitation (1.46 lbs/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton. Therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

c. Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

d. Emission Limitation:

293.0 lbs/hr of SO2

Applicable Compliance Method:

If required, compliance shall be demonstrated based upon the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0448000012 Emissions Unit ID: P017 Issuance type: Title V Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0448000012 Emissions Unit ID: P045 Issuance type: Title V Proposed Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Line 9212 wet chopped fiberglass dryer equipped with a wet scrubber (Monroe Dual Throat). Oven dryer exhausts are vented to the scrubber.	OAC rule 3745-31-05(A)(3) (PTI 04-1132)	1.7 lbs/hr of particulate emissions 7.5 tpy of particulate emissions 0.17 lb/hr of carbon monoxide (CO) 0.75 tpy of CO 0.2 lb/hr of nitrogen oxides (NOx) 0.9 tpy of NOx 0.01 lb/hr of sulfur dioxide (SO2) 0.04 tpy of SO2 0.012 lb/hr of volatile organic compounds (VOC) 0.05 tpy of VOC See section A.I.2.c.
	OAC rule 3745-17-07(A)(1)	See section A.I.2.a.
	OAC rule 3745-17-10(B)(1)	See section A.I.2.b.
	OAC rule 3745-18-06(E)	See section A.I.2.b.

OAC rule 3745-21-08(B)	See section A.I.2.f.
OAC rule 3745-23-06(B)	See section A.I.2.f.

2. **Additional Terms and Conditions**

a. Visible particulate emissions from the stack serving this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

b. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

c. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).

d. The hourly and annual emission limitations for SO2, CO, VOC, and NOx were established for PTI purposes to reflect the potentials to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limitations.

e. The permittee shall employ the wet scrubber whenever this emissions unit is in operation.

f. The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and 3745-23-06, respectively, by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in permit to install 04-1132.

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II. **Operational Restrictions**

1. The permittee shall burn only natural gas as fuel in this emissions unit.

2. The pressure drop across the scrubber shall be continuously maintained between 6 and 10 inches of water at all times while the emissions unit is in operation.

   The scrubber water flow rate shall be continuously maintained at a value of not less than 60 gallons per minute at all times while the emissions unit is in operation.

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III. **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.

2. The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber water flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.

   The permittee shall collect and record the following information during each 8-hour shift:

   a. the pressure drop across the scrubber, in inches of water, once per shift;

   b. the scrubber water flow rate, in gallons per minute, once per shift; and

   c. the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

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IV. **Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were outside of the ranges specified in section A.III.2:

   a. the static pressure drop across the scrubber; and

   b. the scrubber water flow rate.

3. The quarterly deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

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V. **Testing Requirements**

1. Compliance with the emission limitations in sections A.I.1 and A.I.2 of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

1.7 lbs/hr of particulate emissions

Applicable Compliance Method

If required, compliance shall be demonstrated based upon emission testing performed in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(10).

b. Emission Limitation:

7.5 tpy of particulate emissions

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable particulate emission limitation (1.7 lbs/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton. Therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

c. Emission Limitation:

0.01 lb/hr of SO2

Applicable Compliance Method:

Compliance may be demonstrated by dividing the emission factor of 0.6 pound of SO2 emissions per million standard cubic feet by a heating value of 1020 Btu per standard cubic foot, and then multiplying by the maximum heat input capacity of 2 mmBtu per hour. The SO2 emission factor was obtained from USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2, dated 7/98.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 6 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-18-04.

d. Emission Limitation:

0.04 tpy of SO2

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable SO2 emission limitation (0.01 lb/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton. Therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

e. Emission Limitation:

0.17 lb/hr of CO

Applicable Compliance Method:

Compliance may be demonstrated by dividing the emission factor of 84 pounds of CO emissions per million standard cubic feet by a heating value of 1,020 Btu per standard cubic foot, and then multiplying the result by the maximum heat input capacity of 2 mmBtu per hour. The CO emission factor was obtained from USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-1, dated 7/98.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 10 of 40 CFR Part 60 Appendix A.

f. Emission Limitation:

0.75 tpy of CO

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable CO emission limitation (0.17 lb/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton. Therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

g. Emission Limitation:

0.2 lb/hr of NOx

Applicable Compliance Method:

Compliance may be demonstrated by dividing the emission factor of 100 pounds of NOx emissions per million standard cubic feet by a heating value of 1020 Btu per standard cubic foot, and then multipying by the maximum heat input capacity of 2 mmBtu per hour. The NOx emission factor was obtained from USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-1, dated 7/98.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 7 of 40 CFR Part 60 Appendix A.

h. Emission Limitation:

0.9 tpy of NOx

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable NOx emission limitation (0.2 lb/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton. Therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

i. mission Limitation:

0.012 lb/hr of VOC

Applicable Compliance Method:

Compliance may be demonstrated by dividing the emission factor of 5.5 pounds of VOC emissions per million standard cubic feet by a heating value of 1020 Btu per standard cubic foot, and then multiplying by the maximum heat input capacity of 2 mmBtu per hour. The VOC emission factor was obtained from USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2, dated 7/98.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Method 25 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-21-10.

j. Emission Limitation:

0.05 tpy of VOC

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly allowable VOC emission limitation (0.012 lb/hr) by the maximum annual hours of operation (8760 hrs), and then dividing by 2000 lbs/ton. Therefore, if compliance is shown with the hourly limitation, compliance shall also be shown with the annual emission limitation.

k. Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

Compliance shall be demonstrated based upon visible emission observations performed in accordance with Method 9 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(1).

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 0448000012 Emissions Unit ID: P045 Issuance type: Title V Proposed Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. **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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures

2. **Additional Terms and Conditions**

1. None

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II. **Operational Restrictions**

1. None

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

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None