

PROCESS DESCRIPTION

Wet chopped fiberglass dryer oven and scrubber. This unit speeds the drying of wet fiberglass flowing from the 9212 oven forming line 4. The only new emissions will be from combustion gases and particulate matter from the dried fiber exposed to an air flow. The VOCs from binders have already been accounted for in permit P013 (PTI 04-975).

B.A.T. DETERMINATION

P045 Wet Fiber Dryer Oven for line 4

PM -Use of a Wet scrubber with emissions of less than (.02 gr/dscf)1.7 pounds per hour and 7.7 tons per year.

For VOC, NO_x, CO, and SO₂, the use of natural gas and good operating practices.

APPLICABLE RULES & REGULATIONS

- 3745-31-05 BAT
- 3745-18-06 SO₂ emission limit provisions
- 3745-21-07 Control of emissions of organic materials from stationary sources
- 3475-21-08 Control of carbon monoxide emissions from stationary sources
- 3745-17-07 Control of visble particulate emissions
- 3745-17-11 Restrictions on particulate emissions from industrial processes
- 3745-23-06 Control of nitrogen oxide emssions

CALCULATIONS

Potential to Emit(Will be the same as allowable) for P045 Fiberglass drying oven from AP42 1.4-1(7/93) Combustion emissions based on 2 MMBtu burner.

Pollutant	mmft ³ /hr of gas	EF, lb/mmcf	ER, tons/yr	ER, lbs/hr
PM	0.002	4.5	0.04	0.009
*PM10	0.002	4.5	0.04	0.009
CO	0.002	21	0.18	0.042
NO _x	0.002	100	0.88	0.2
SO ₂	0.002	0.6	0.01	0.0012
VOC	0.002	5.8	0.05	0.0116

*** All PM can be considered PM10 for this process**

Additional PM from drying process of fiberglass

Pollutant	gr/dscf	* scfm	/ gr/lb	* min/hr= lbs/hr	tpy
PM	0.02	10000	7000.00	60	1.71

The PM from fuel is negligible so PM ER is 1.7 lb/hr and 7.5 tpy

Actual Emissions

Based on stack testing of similar unit

All pollutants will be negligible (the same as potential to emit) except for PM.

ER from stack test = .021 pounds per hour

8760 hours * .021 pounds per hour divided by 2000 lbs per ton = .09 tpy

FEES

1 Process >1001<5000 pounds per hour = \$400.00

The air contaminant sources listed below comprise the Permit to Install for Johns Manville located in Lucas County. The sources listed below shall not exceed the emission limits/control requirements contained in the table. This condition in no way limits the applicability of any other state or federal regulations. Additionally, this condition does not limit the applicability of additional special terms and conditions of this permit.

Ohio EPA Source Number	Source Identification/Description	BAT Determination	Applicable Federal and OAC Rules	Permit Allowable Mass Emissions and/or Control & Usage Requirements
P045	9212 line 4 oven/Wet Chopped Fiberglass Dryer	0.02 gr/dscf of PM & 20 percent opacity from the scrubber, use of natural gas	3745-31-05	PM - 1.7 lbs/hr, 7.5 tpy SO ₂ - 0.0012, 0.01 tpy NO _x -0.2 lb/hr, 0.9 tpy
			3745-21-08 3745-21-07	CO - 0.042, 0.18 tpy VOC -0.0116 lb/hr, 0.05 tpy
			*3745-18-06 *3745-17-11 *3745-23-06	See comment below See comment below See comment below
			3745-17-07	less than or equal to 20 percent opacity, as a 6-minute average, from the stack, except as provided by rule

* This emissions limit is less stringent than the limit established through 3745-31-05

SUMMARY
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons/Year</u>
PM	7.5
VOC	0.05
SO ₂	0.01
NO _x	0.9
CO	0.18

A. ADDITIONAL TERMS AND CONDITIONS

1. This emissions unit shall not be operated without the use of the wet scrubber.

B. OPERATIONAL RESTRICTIONS

1. This emissions unit shall combust only natural gas. Combustion of any other fuel will constitute a violation of this term.
2. The permittee shall maintain a pressure drop of 8-10" H₂O across the wet scrubber.

C. MONITORING and/or RECORD KEEPING REQUIREMENTS

1. The permittee shall record any use of any gas other than natural gas.
2. The permittee shall record the pressure drop across the wet scrubber once per day.

D. REPORTING REQUIREMENTS

1. The permittee shall report the usage of all non-natural gas fuels combusted in this emissions unit to the Division of Environmental Services within 15 days.
2. The permittee shall report any deviations in pressure drop that are below the 8-10" H₂O pressure drop range across the wet scrubber. Deviations shall be reported to the Division of Environmental Services within 15 days.

E. TESTING AND COMPLIANCE REQUIREMENTS

1. Compliance with the emission limitation(s) in this permit shall be determined in accordance with the following method(s):

- a. Emission Limitation: Less than or equal to 20 percent opacity, as a 6-minute average
Applicable Compliance Method: OAC 3745-17-03(B)(1)
- b. Emission Limitation: 1.71 pounds per hour PM
Applicable Compliance Method: Compliance will be demonstrated by using the emission factor of 0.02 grains per dry standard cubic foot times the maximum dry standard cubic feet per hour flow of 600,000 divided by 7000 grains per pound.
- c. Emission Limitation: 7.5 tons per year PM.
Applicable Compliance Method: Compliance with the hourly PM limit constitutes compliance with the annual tons per year limit.
- d. Emission Limitation: 0.0012 pounds per hour of SO₂.
Applicable Compliance Method: Compliance will be demonstrated by the use of only natural gas fuel.
- e. Emission Limitation: 0.01 tons per year of SO₂.
Applicable Compliance Method: Compliance will be demonstrated by the use of only natural gas fuel
- f. Emission Limitation: 0.2 pounds per hour of NO_x.
Applicable Compliance Method: Compliance will be demonstrated by the use of only natural gas fuel
- g. Emission Limitation: 0.9 tons per year of NO_x.

Applicable Compliance Method: Compliance will be demonstrated by the the use of only natural gas fuel.

- h. Emission Limitation: 0.0116 pounds per hour of VOC.
Applicable Compliance Method: Compliance will be demonstrated by the the use of only natural gas fuel.
- i. Emission Limitation: 0.05 tons per year of VOC.
Applicable Compliance Method: Compliance will be demonstrated by the the use of only natural gas fuel.
- j. Emission Limitation: 0.042 pounds per hour of CO.
Applicable Compliance Method: Compliance will be demonstrated by the the use of only natural gas fuel.
- k. Emission Limitation: 0.18 tons per year of CO.
Applicable Compliance Method: Compliance will be demonstrated by the the use of only natural gas fuel.

F. MISCELLANEOUS REQUIREMENTS

No miscellaneous requirements.

NEW SOURCE REVIEW FORM B

(REVISED 5/1/89)

PTI NUMBER 04-1132 PREMISE NO.

0448030014

FACILITY NAME Johns Manville, River Road Facility COUNTY

Lucas

FACILITY DESCRIPTION Fiber Glass melting and forming.

CITY/TWP Waterville

SIC CODE 3229 & 3296 SCC CODE

1-03-006-06

SOURCE DESCRIPTION 9212 furnace forming line 4 dryer oven.

START-UP DATE Upon Issuance of PTI

Pollutants	Air Quality Designation	Actual Emissions		PTI Allowable Emissions	
		lb/hr	TPY	lb/hr, etc.	TPY
Particulate Matter	Attainment	0.02	0.09	N/a	n/a
PM ₁₀	Unclassified	0.02	0.09	1.7	7.5
Sulfur Dioxide	Nonattainment	0.0012	0.01	0.0012	0.01
Organic Compounds	Attainment	0.0116	0.05	0.0116	0.05
Nitrogen Oxides	Attainment	0.2	0.9	0.2	0.9
Carbon Monoxide	Attainment	0.042	0.18	0.042	0.18
Lead	Attainment				
Other: Air Toxics (See Other Side)					

APPLICABLE FEDERAL RULES: ___ NSPS ___ NESHAPS ___ PSD ___ OFFSET POLICY

WHAT IS THE BAT DETERMINATION AND WHAT IS THE BASIS FOR THE DETERMINATION?

BAT is use of wet scrubber. BAT for sulfur dioxide, VOC, NOx, and CO, is combustion of only natural gas.

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT?

PERSON COMPLETING FORM Adam Zolciak DATE 5/11/98

*IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? ___ YES ___ X NO
((If yes, turn to other side and complete "Toxic Air Contaminants" Section)