

1

Facility Name: **Bulk Molding Compounds, Inc**

Application Number: **03-3080**

Date: **March 10, 1999**

GENERAL PERMIT CONDITIONS

TERMINATION OF PERMIT TO INSTALL

Substantial construction for installation must take place within 18 months of the effective date of this permit. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

NOTICE OF INSPECTION

The Director of the Ohio Environmental Protection Agency, or his authorized representatives, may enter upon the premises of the above-named applicant during construction and operation at any reasonable time for the purpose of making inspections, conducting tests, or to examine records or reports pertaining to the construction, modification or installation of the source(s) of environmental pollutants identified within this permit.

CONSTRUCTION OF NEW SOURCE(S)

The proposed source(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources are inadequate or cannot meet applicable standards.

If the construction of the proposed source(s) has already begun or has been completed prior to the date the Director of the Ohio Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of Ohio Administrative Code

2

Facility Name: **Bulk Molding Compounds, Inc**

Application Number: **03-3080**

Date: **March 10, 1999**

(OAC) Rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities prove to be inadequate or cannot meet applicable standards.

PERMIT TO INSTALL FEE

In accordance with Ohio Revised Code 3745.11, the specified Permit to Install fee must be remitted within 15 days of the effective date of this permit to install.

PUBLIC DISCLOSURE

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC Rule 3745-49-03.

APPLICABILITY

This Permit to Install is applicable only to the contaminant sources identified. Separate application must be made to the Director for the installation or modification of any other contaminant sources.

BEST AVAILABLE TECHNOLOGY

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

3

Facility Name: **Bulk Molding Compounds, Inc**

Application Number: **03-3080**

Date: **March 10, 1999**

PERMIT TO OPERATE APPLICATION

A Permit to Operate application must be submitted to the appropriate field office for each air contaminant source in this Permit to Install. In accordance with OAC Rule 3745-35-02, the application shall be made at least 90 days prior to start-up of the source.

NINETY DAY OPERATING PERIOD

The facility will be permitted to operate during a 90-day period in accordance with OAC Rule 3745-35-02(C)(4)(b). The purpose of this period of operation is to fulfill the performance tests conditions used in the determination of compliance with the provisions of this Permit to Install or other applicable Ohio EPA rules.

SOURCE OPERATION AFTER COMPLETION OF CONSTRUCTION

This facility is permitted to operate each source described by this permit to install for period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies.

4

Facility Name: **Bulk Molding Compounds, Inc**

Application Number: **03-3080**

Date: **March 10, 1999**

5

Facility Name: **Bulk Molding Compounds, Inc**

Application Number: **03-3080**

Date: **March 10, 1999**

<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
---	---	------------------------------	---	--

AIR EMISSION SUMMARY

The air contaminant emissions units listed below comprise the Permit to Install for **Bulk Molding Compounds, Inc** located in **Wood** County. The emissions units 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.

<u>Ohio EPA Source Number</u>	<u>Source Identification Description</u>	<u>BAT Determination</u>
P025		
P024	Bulk Molding Compound Mixer #20	Bulk Molding Compound Extruder #12 Use of Baghouse Compliance with Terms and Conditions in this Permit and Ohio EPA Air Toxics Policy

Facility Name: **Bulk Molding Compounds, Inc**

Application Number: **03-3080**

Date: **March 10, 1999**

<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal & OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
Compliance with Terms and Conditions in this Permit and Ohio EPA Air Toxics Policy	3745-31-05	Permit Allowable Mass Emissions and/or Control/Usage <u>Requirements</u>		
		0.01 grains/dscf 0.15 lb Particulate Emissions (PE)/hr, 0.66 Tons PE/yr		
		1.88 lbs Organic Compounds (OC)/hr, 7.3 tons OC/yr		
		Visible emissions shall not exceed 0% opacity as a 6-minute average		
		(*)		
		(*)		
	3745-17-07 (A)			
	3745-17-11 (B) (1)	Not to exceed 40 lbs OC/day**		
	3745-21-07 (G) (2)			
		3.30 lbs OC/hr 14.45 tons OC/yr		
	3745-31-05			

Facility Name: **Bulk Molding Compounds, Inc**
Application Number: **03-3080**
Date: **March 10, 1999**

- * Applicable requirements established by this OAC Rule are less stringent than the requirements established by OAC Rule 3745-31-05.
- ** The pound per hour emissions limitation based on this applicable rule is less stringent than the limit established pursuant to OAC rule 3745-31-05.

SUMMARY
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons/Year</u>
PE	0.66
OC	21.75

REPORTING REQUIREMENTS

Unless otherwise specified, reports required by the Permit to Install need only be submitted to **Ohio EPA Northwest District Office, 347 North Dunbridge Road, Bowling Green, Ohio 43402.**

WASTE DISPOSAL

The owner/operator shall comply with any applicable state and

8

Facility Name: **Bulk Molding Compounds, Inc**

Application Number: **03-3080**

Date: **March 10, 1999**

federal requirements governing the storage, treatment, transport and disposal of any waste material generated by the operation of the sources.

MAINTENANCE OF EQUIPMENT

This source and its associated air pollution control system(s) shall be maintained regularly in accordance with good engineering practices and the recommendations of the respective manufacturers in order to minimize air contaminant emissions.

MALFUNCTION/ABATEMENT

In accordance with OAC RULE 3745-15-06, any malfunction of the source(s) or associated air pollution control system(s) shall be reported immediately to the **Ohio EPA Northwest District Office, 347 North Dunbridge Road, Bowling Green, Ohio 43402.**

Except as provided by OAC Rule 3745-15-06(A)(3), scheduled maintenance of air pollution control equipment that requires the shutdown or bypassing of air pollution control system(s) must be accompanied by the shutdown of the associated air pollution sources.

AIR POLLUTION NUISANCES PROHIBITED

The air contaminant source(s) identified in this permit may not cause a public nuisance in violation of OAC Rule 3745-15-07.

Facility Name: **Bulk Molding Compounds, Inc**

Application Number: **03-3080**

Date: **March 10, 1999**

CONSTRUCTION COMPLIANCE CERTIFICATION

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

ADDITIONAL SPECIAL TERMS AND CONDITIONS

General Information

Cytec Industries submitted Permit to Install (PTI) application 03-13080 for the installation of a bulk molding compound mixer and an extruder, P024 (mixer) and P025 (extruder).

A. Applicable Emission Limitations and/or Control Requirements

1. No additional applicable emission limitations and/or control requirements other than those stated in the air emissions summary.

B. Operational Restrictions

1. This permit allows the use of materials (typically coatings and cleanup materials) specified by the permittee in the permit to install application for this emissions unit. To fulfill the best available technology requirements of (OAC) rule 3745-31-05 and to ensure compliance with OAC rule 3745-15-07 (Air Pollution Nuisances Prohibited), the emission limitation(s) specified in this permit were established using the Ohio EPA's "Air Toxic Policy" and are based on both the materials used and the design parameters of the emissions unit's exhaust system, as specified in the application. The Ohio EPA's "Air Toxic Policy" was applied for each pollutant using the SCREEN 3.0 model and comparing the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for each pollutant:

Facility Name: **Bulk Molding Compounds, Inc**

Application Number: **03-3080**

Date: **March 10, 1999**

Pollutant: Styrene

TLV (ug/m3): 213.0

Maximum Hourly Emission Rate (lbs/hr): 1.88 lbs/hr

Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m3): 2504.0

MAGLC (ug/m3): 5071.0

OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by the OAC rule 3745-31-01. The permittee is hereby advised that the following changes to the process may be determined to be a "modification":

- 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 specified in the above table;
- b. changes to the emissions unit or its exhaust parameters (e.g., increased emission rate [not including an increase in an "allowable" emission limitation specified in the terms and conditions of this permit], reduced exhaust gas flow rate, and decreased stack height);
- c. changes in the composition of the materials used, or use of new materials, that would result in the emission of an air contaminant not previously permitted; and,

Facility Name: **Bulk Molding Compounds, Inc**

Application Number: **03-3080**

Date: **March 10, 1999**

- d. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant that has a listed TLV.

The Ohio EPA will not consider any of the above-mentioned as a "modification" requiring a permit to install, if the following conditions are met:

- a. the change is not otherwise considered a "modification" under OAC Chapter 3745-31;
- b. the permittee can continue to comply with the allowable emission limitations specified in its permit to install; and,
- c. prior to the change, the applicant conducts an evaluation pursuant to the Air Toxic Policy, determines that the changed emissions unit still satisfies the Air Toxic Policy, and the permittee maintains documentation that identifies the change and the results of the application of the Air Toxic Policy for the change.

For any change to the emissions unit or its method of operation that either would require an increase in the emission limitation(s) established by this permit or would otherwise be considered a "modification" as defined in OAC rule 3745-31-01, the permittee shall obtain a final permit to install prior to the change.

2. The pressure drop across the baghouse shall be maintained within the range of 4-6 inches of water while the emissions unit is in operation.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain daily records of the following information for emissions unit P024 (mixer):
 - a. the number of bulk molding compound batches mixed per day;

Facility Name: **Bulk Molding Compounds, Inc**

Application Number: **03-3080**

Date: **March 10, 1999**

- b. the daily OC emission rate in pounds per day (a x 0.94 lb OC/batch) 0.94 lb OC/batch represents a worst case emission factor for the mixing of bulk molding compound mixed; and,
 - c. the annual year to date total OC emissions (summation of b for each calendar month to date from January to December).
2. The permittee shall properly install, 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.
3. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings, if a strip-chart recorder is employed, for continuous monitoring instrumentation, and copies of all reports required by the permit. Such records may be maintained in computerized form.

D. Reporting Requirements.

1. The permittee shall submit quarterly written reports for emission units P024 and P025 of any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Ohio EPA, Northwest District Office. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that

Facility Name: **Bulk Molding Compounds, Inc**

Application Number: **03-3080**

Date: **March 10, 1999**

quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

2. The actual annual OC emissions data for the emissions units shall be reported pursuant to the fee emissions report required by OAC 3745-78-02(A).
3. The compliance status of the emissions units shall be reported pursuant to the annual certification required by OAC Rule 3745-77-07 (C) (5).
4. Unless otherwise specified, all reports shall be sent to Ohio EPA, Northwest District Office, Bowling Green , OH 43402.

E. Testing Requirements

1. Compliance Method Determinations

a. Emissions Unit P024:

i. Emission Limitation:

1.88 lbs OC/hr

Applicable Compliance Method:

The hourly OC emission limitation is based on the emission units potential to emit*. Therefore, no hourly record keeping, deviation reporting or compliance method calculations are required to demonstrate compliance with this limitation.

*The potential to emit for this emissions unit was based on a maximum production capacity of two batches per hour times a "worst case" emission factor of 0.94 lb OC/batch. The emission factor of 0.94 lb OC/batch was established based on stack

Facility Name: **Bulk Molding Compounds, Inc**

Application Number: **03-3080**

Date: **March 10, 1999**

testing of similar emissions units.

ii. Emission Limitation:

Not to exceed 40 lbs OC per day

Applicable Compliance Method:

Compliance shall be demonstrated based on record keeping contained in term C.1.a.

iii. Emission Limitation:

7.3 tons OC/yr

Applicable Compliance Method:

Compliance shall be demonstrated based on record keeping contained in term C.1.c

iv. Emission Limitation:

0.01 grains/dscf outlet loading from baghouse

Applicable Compliance Method:

The grain loading limitation was based on the manufacturer--guaranteed outlet grain loading for the baghouse. Compliance shall be demonstrated by ensuring the baghouse operates with design parameters through the monitoring and record keeping contained in term C.2. If required, compliance with the PE limitation shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 5.

v. Emission Limitation:

0.15 lb PE/hr

Facility Name: **Bulk Molding Compounds, Inc**

Application Number: **03-3080**

Date: **March 10, 1999**

Applicable Compliance Method:

The emission limitation was established by multiplying the grain loading requirement of 0.01 gr/dscf (1.4×10^{-6} lb/dscf) by a maximum volumetric air flow rate of 1,800 dscf/min (108,000 dscf/hr) for the control collection system on emissions unit P024. Therefore, provided compliance is shown with the grain loading requirement, compliance will also be shown with the hourly limitation.

vi. Emission Limitation:

0.66 ton PE/yr

Applicable Compliance Method:

The tons per year limitation was developed by multiplying the lb/hr allowable mass emission rate by the maximum operating schedule of 8760 hrs/yr, and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

vii. Emission Limitation:

Visible emissions shall not exceed 0% opacity as a six minute average.

Applicable Compliance Method:

Method 9 of 40 CFR Part 60, Appendix A

b. Emissions unit P025

i. Emission Limitation:

3.30 lbs OC/hr

Facility Name: **Bulk Molding Compounds, Inc**

Application Number: **03-3080**

Date: **March 10, 1999**

Applicable Compliance Method:

Compliance shall be determined by the emission testing requirements contained in term E.2.

ii. Emission Limitation:

14.45 tons OC/yr

Applicable Compliance Method:

The tons per year limitation was developed by multiplying the lb/hr allowable mass emission rate by the maximum operating schedule of 8760 hrs/yr, and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

2. Emission testing requirements

The permittee shall conduct, or have conducted, emission testing for this emission units P024 and P025 in accordance with the following requirements:

- a. the emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emission units will be operated, but not later than 180 days after initial startup of each emissions unit;
- b. the emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates of 1.88 lbs OC/hr for emissions unit P024 and 3.30 lbs OC/hr for emissions unit P025. The emission testing for emissions unit P024 shall be conducted in a manner to obtain the OC emissions (in pounds) generated per batch of bulk molding compound mixed;
- c. the following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 204 through 204f.

Facility Name: **Bulk Molding Compounds, Inc**

Application Number: **03-3080**

Date: **March 10, 1999**

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA; and,

- 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 Ohio EPA Northwest District Office. The test(s) shall also be conducted under "worst case" scenario conditions which will generate the greatest OC emissions.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Northwest District Office. 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 Ohio EPA Northwest District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Northwest District Office 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 Ohio EPA Northwest District Office 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 Ohio EPA Northwest District Office.

F. Miscellaneous Requirements

None

18

Facility Name: **Bulk Molding Compounds, Inc**

Application Number: **03-3080**

Date: **March 10, 1999**