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Facility Name: **Premix, Inc.**

Application Number: **02-1793**

Date: **May 26, 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 SOURCES

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 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 (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

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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 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 30 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.

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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.

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 filed no later than thirty days after commencement of operation.

SOURCE OPERATION AFTER COMPLETION OF CONSTRUCTION

This facility is permitted to operate each source described by this permit to install for a 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 and regulations.

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<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>
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AIR EMISSION SUMMARY

The air contaminant emissions units listed below comprise the Permit to Install for **Premix, Inc.** located in **Ashtabula** 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>				P014 (Mod)
P010 (Mod)				
	P011 (Mod) Cont'd			P014 (Mod) Cont'd
	P012 (Mod)			
		P013 (Mod)		
P011 (Mod)		P013 (Mod) Cont'd		

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		P017 (Mod)	(Mod)	(Mod) Cont'd
	P016 (Mod)			
P015 (Mod) Cont'd				
P015 (Mod) Cont'd				
	P016 (Mod) Cont'd			P022 (Mod)
		P017 (Mod) Cont'd	P021 (Mod)	
		P018	P021	

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P022 (Mod) Cont'd				P027 (Mod)
	P023 (Mod) Cont'd			
		P024 (Mod) Cont'd	P026 (Mod)	
		P025 (Mod)	P026 (Mod) Cont'd	
	P024 (Mod)			P027 (Mod) Cont'd
P023 (Mod)				
				P028 (Mod)

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		P032		P037 Cont'd
			P035 (Mod)	P038
	P030 (Mod)			
		P033 (Mod)		
			P036 (Mod)	P039
P028 (Mod) Cont'd	P031 (Mod)			P040 (Mod)
P029 (Mod)	P031 (Mod) Cont'd	P034		
		P034 Cont'd	P037	

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		P051 (Mod)		P061 (Mod)
P041 (Mod)	P046 (Mod)		P056 (Mod)	
	P046 (Mod) Cont'd	P051 (Mod) Cont'd		P062 (Mod)
P042 (Mod)	P047 (Mod)	P052 (Mod)	P057 (Mod)	P062 (Mod) Cont'd
	P048 (Mod)		P058 (Mod)	P063 (Mod)
P043 (Mod)		P053 (Mod)		
	P049 (Mod)		P059 (Mod)	P064 (Mod)
P044 (Mod)		P054 (Mod)		
	P050 (Mod)		P060 (Mod)	P065 (Mod)
P045 (Mod)		P055 (Mod)		
				P066

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(Mod)				Resin Paste Disperser; C-4
	<u>Source Identification Description</u>		Resin Paste Disperser; C-3	
P067 (Mod)	Thermoplastic additive disperser; C-0	Resin paste disperser; C-2		
P067 (Mod) Cont'd				
P068 (Mod)				
P069 (Mod)	Thickener disperser; C-1			

Resin Paste

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Disperser; er; C-5	C-6			
Resin Paste Paste Disperser; C-7	Resin Paste Disperser; C-7	Resin Paste Disperser; C-8	BMC Mixer; Sigma Mixer 1	BMC Mixer; Sigma Mixer 2

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				BMC Mixers; Continuous mixers #1 and #2
			BMC Mixer; Littleford Mixer #6	
		BMC Mixer; Littleford Mixer #5		
BMC Mixer; Sigma Mixer 3	BMC Mixer; Sigma Mixer 4			
				BMC Dispersers- Mixers; two pilot plant dispersers- mixers

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		Compounding machine; Pilot Plant SMC machine	Extrusion machine; BMC/SMC extruder #1	Extrusion machine; BMC/SMC extruder #3.5
	Compounding machine; Chain SMC machine			
		Extrusion machine; BMC/SMC extruder #4	Extrusion machine; BMC/SMC extruder #2	Pipe and pump cleaning operations: cleaning room
				Compound roller; TMC roller
Compounding machine; TMC machine	Compounding machine; Premi SMC	Extrusion machine; BMC/SMC extruder #5	Extrusion machine; BMC/SMC extruder #3	
				Compression mold

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press; mold press A-6	Compression mold press; mold press E-1	mold press E-6	press; mold press G-4	H-0
Compres sion mold press; mold press B-6	Compression mold press; mold press E-2	Compression mold press; mold press E-7	Compression mold press; mold press G-5	Injection mold press; mold press H-1
Compres sion mold press; mold press D-4	Compression mold press; mold press E-3	Compression mold press; mold press G-1	Compression mold press; mold press G-6	Injection mold press; mold press H-2
Compres sion mold press; mold press D-6	Compression mold press; mold press E-4	Compression mold press; mold press G-2	Compression mold press; mold press G-7	Injection mold press; mold press H-3
Compres sion mold press; mold press D-6	Compression mold press; mold press E-5	Compression mold press; mold press G-3	Compression mold press; mold press G-8	Injection mold press; mold press H-4
	Compression mold press;	Compression mold	Injection mold press; mold press	H-5

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Injection mold press; mold press Injecti H-9 on mold press; mold press H-6		BAT <u>Determination</u> Compliance with Air Toxic Policy. Use of nonphoto-chemically reactive cleanup materials.	Use of hood enclosure/dust control device and use of dust control device, at filler charge operation and at the mix operations, respectively, each of which have a control efficiency of at least 99 percent.	Use of hood enclosure/dust control device and use of dust control device, at filler charge operation and at the mix operations, respectively, each of which have a control efficiency of at least 99 percent.
Injection mold press; mold press H-7				
Injection mold press; mold press H-8		Compliance with Air Toxic Policy. Use of nonphoto-chemically reactive cleanup materials.	Compliance with Air Toxics Policy. Use of nonphoto-chemically reactive cleanup materials.	Compliance with Air Toxics Policy. Use of nonphoto-chemically reactive cleanup materials.

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<p>.</p> <p>Use of hood enclosure/dust control device and use of dust control device, at filler charge operation and at the mix operations, respectively, each of which have a control efficiency of at least 99 percent</p>	<p>Compliance with Air Toxics Policy. Use of nonphoto-chemically reactive cleanup materials.</p> <p>Use of hood enclosure/dust control device and use of dust control device, at filler charge operation and at the mix operations,</p>	<p>respectively, each of which have a control efficiency of at least 99 percent.</p> <p>Compliance with Air Toxics Policy. Use of nonphoto-chemically reactive cleanup materials.</p> <p>Use of hood enclosure/dust control device and use of dust control device, at filler charge operation and at the mix operations, respectively, each of which have a control efficiency of at least 99 percent.</p>	<p>percent.</p> <p>Compliance with Air Toxics Policy. Use of nonphoto-chemically reactive cleanup materials.</p> <p>Use of hood enclosure/dust control device and use of dust control device, at filler charge operation and at the mix operations, respectively,</p>	<p>each of which have a control efficiency of at least 99 percent.</p> <p>Compliance with Air Toxics Policy. Use of nonphoto-chemically reactive cleanup materials.</p> <p>Use of hood enclosure/dust control device and use of dust control device, at filler charge operation and at the mix</p>

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operati ons, respect ively, each of which have a control efficie ncy of at least 99 percent .	Use of a dust control device, which has an efficiency of at least 99 percent.	Toxics Policy. Use of nonphoto- chemically reactive cleanup materials. Use of a dust control device, which has an efficiency of at least 99 percent.	Use of a dust control device, which has an efficiency of at least 99 percent.	Use of a dust control device, which has an efficiency of at least 99 percent.
Complia nce with Air Toxics Policy. Use of nonphot o- chemica lly reactiv e cleanup material s.	Compliance with Air	Compliance with Air Toxics Policy. Use of nonphoto- chemically reactive cleanup materials.	Compliance with Air Toxics Policy. Use of nonphoto- chemically reactive cleanup materials.	Compliance with Air Toxics Policy. Use of nonphoto- chemically reactive cleanup materials.

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Use of a dust control device, which has an efficiency of at least 99 percent.	chemically reactive cleanup materials. Use of a dust control device, which has an efficiency of at least 99 percent.	Use of a dust control device, which has an efficiency of at least 99 percent.	Compliance with Air Toxics Policy. Use of nonphoto-chemically reactive cleanup materials.	nonphotochemically reactive cleanup materials. Compliance with Air Toxic Policy. Use of nonphotochemically reactive cleanup materials.
Compliance with Air Toxics Policy. Use of nonphoto-	Compliance with Air Toxics Policy. Use of nonphoto-chemically reactive cleanup materials.	Compliance with Air Toxics Policy. Use of nonphoto-chemically reactive cleanup materials. Use of a dust control device, which has an efficiency of at least 99 percent.	Compliance with Air Toxic Policy. Use of	Compliance with Air Toxic Policy. Use of nonphotochemically reactive cleanup materials.

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	reactive cleanup materials.			Policy.
Compliance with Air Toxic Policy. Use of nonphotochemically reactive cleanup materials.	Compliance with Air Toxic Policy. Use of nonphotochemically reactive cleanup materials.	Compliance with Air Toxic Policy. Use of nonphotochemically reactive cleanup materials.	Compliance with Air Toxic Policy. Use of nonphotochemically reactive cleanup materials.	Compliance with Air Toxic Policy.
				Compliance with Air Toxic Policy.
Compliance with Air Toxic Policy. Use of nonphotochemically reactive cleanup materials.	Compliance with Air Toxic Policy. Use of nonphotochemically reactive cleanup materials.	Compliance with Air Toxic Policy. Use of nonphotochemically reactive cleanup materials.	Compliance with Air Toxic Policy.	Compliance with Air Toxic Policy.
				Compliance with Air Toxic Policy.
Compliance with Air Toxic Policy. Use of nonphotochemically reactive cleanup materials.	Compliance with Air Toxic Policy. Use of nonphotochemically reactive cleanup materials.	Compliance with Air Toxic Policy. Use of nonphotochemically reactive cleanup materials.	Compliance with Air Toxic Policy.	Compliance with Air Toxic Policy.
				Compliance with Air Toxic Policy.

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Compliance with Air Toxic Policy.	Compliance with Air Toxic Policy.	Compliance with Air Toxic Policy.	Compliance with Air Toxic Policy.	Compliance with Air Toxic Policy.
Compliance with Air Toxic Policy.	Compliance with Air Toxic Policy.	Compliance with Air Toxic Policy.	Compliance with Air Toxic Policy.	Compliance with Air Toxic Policy.
Compliance with Air Toxic Policy.	Compliance with Air Toxic Policy.	Compliance with Air Toxic Policy.	Compliance with Air Toxic Policy.	Compliance with Air Toxic Policy.
Compliance with Air Toxic Policy.	Compliance with Air Toxic Policy.	Compliance with Air Toxic Policy.	Compliance with Air Toxic Policy.	Compliance with Air Toxic Policy.
Compliance with Air Toxic Policy.	Compliance with Air Toxic Policy.	Compliance with Air Toxic Policy.		Compliance with Air Toxic

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Ohio EPA Source <u>Number</u>	Source Identification <u>Number</u>	BAT <u>Determination</u>	Applicable Federal & OAC Rules	Permit Allowable Mass Emissions and/or Control/Usage <u>Requirements</u>
Policy.				3745-17-07 (A)
	Applicable Federal & <u>OAC Rules</u>	3745-17-07 (A)	3745-17-07 (A)	
	3745-21-07 (G) (2)			
Compliance with Air Toxic Policy.	3745-31-05			3745-17-11
			3745-17-11	3745-31-05
		3745-17-11	3745-31-05	
		3745-31-05		3745-21-07 (G) (2)
Compliance with Air Toxic Policy.	3745-21-07 (G) (2)		3745-21-07 (G) (2)	3745-31-05
		3745-21-07 (G) (2)	3745-31-05	
	3745-21-07 (G) (2)	3745-31-05		
	3745-31-05			
				3745-17-07

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(A)	(A)			
			3745-17-11	
			3745-31-05	3745-21-07 (G) (2)
		3745-17-11		
		3745-31-05	3745-21-07 (G) (2)	
			3745-31-05	3745-31-05
3745-17-11	3745-17-11			
	3745-31-05	3745-21-07 (G) (2)		
3745-31-05		3745-31-05		
	3745-21-07 (G) (2)			
3745-21-07	3745-31-05			3745-17-07 (A)
(G) (2)				
3745-31-05			3745-17-07 (A)	
		3745-17-07 (A)		3745-17-11
				3745-31-05
	3745-17-07 (A)			
			3745-17-11	3745-21-07 (G) (2)
3745-17-07			3745-31-05	

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		3745-31-05		
3745-31-05			3745-17-07 (A)	
	3745-31-05			3745-17-11 3745-31-05
3745-17-07		3745-17-07 (A)		3745-21-07 (G) (2)
(A)	3745-17-07 (A)		3745-17-11 3745-31-05	3745-31-05
			3745-21-07 (G) (2)	
3745-17-11		3745-17-11	3745-31-05	
3745-31-05	3745-17-11	3745-31-05		3745-17-07 (A)
3745-31-05	3745-31-05			
		3745-21-07 (G) (2)		
3745-21-07	3745-21-07 (G) (2)	3745-31-05		
3745-21-07			3745-17-07 (A)	
(G) (2)				

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3745-17-0511				
3745-31-05				
		3745-21-07 (G) (2)		
3745-21-07 (G) (2)	3745-21-07 (G) (2)	3745-31-05	3745-21-07 (G) (2)	3745-21-07 (G) (2)
3745-31-05			3745-31-05	3745-31-05
	3745-31-05			
		3745-21-07 (G) (2)		
		3745-31-05	3745-21-07 (G) (2)	3745-31-05
			3745-31-05	
	3745-21-07 (G) (2)			
3745-21-07 (G) (2)				3745-21-07 (G) (2)
				3745-31-05
	3745-31-05	3745-21-07 (G) (2)	3745-21-07 (G) (2)	
		3745-31-05		
3745-31-			3745-31-05	

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	(G) (2)	3745-31-05		
	3745-31-05		3745-31-05	
		3745-21-07		3745-21-07 (G) (2)
		(G) (2)	3745-21-07 (G) (2)	
3745-21-3745-21-07 07	(G) (2)	3745-31-05		3745-31-05
	(G) (2)	3745-31-05	3745-31-05	
3745-31-05		3745-21-07		3745-21-07 (G) (2)
	3745-21-07	(G) (2)	3745-21-07 (G) (2)	
	(G) (2)	3745-31-05		3745-31-05
3745-21-3745-31-05 07			3745-31-05	
	(G) (2)			3745-21-07 (G) (2)
			3745-21-07 (G) (2)	
3745-31-3745-21-07 05	(G) (2)	3745-21-07		3745-31-05
		(G) (2)	3745-31-05	
	3745-31-05			
		3745-31-05		
3745-21-07				3745-21-07 (G) (2)
	3745-21-07		3745-21-07 (G) (2)	
(G) (2)	(G) (2)	3745-21-07		3745-31-05
		(G) (2)	3745-31-05	
3745-31-3745-31-05 05		3745-31-05		
				3745-21-07 (G) (2)
			3745-21-07 (G) (2)	
	3745-21-07			3745-31-05
3745-21-07	(G) (2)	3745-21-07		
		(G) (2)	3745-31-05	

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3745-21-07 (G) (2)	3745-31-05	Permit Allowable Mass Emissions and/or Control/Usage Requirements	stack shall not exceed twenty percent opacity as a six-minute average, except as provided by rule.	opacity as a six-minute average, except as provided by rule.
3745-31-05 (G) (2)	3745-21-07 (G) (2)	*	*	*
3745-21-07 (G) (2)	3745-31-05	8 pounds/hour and 15 pounds/day of OC emissions from the production operation. 18 pounds/day and 3.29 TPY of OC emissions from the production operations and cleanup operations, combined.	0.60 pound/hour and 2.63 TPY of PM emissions.	0.49 pound/hour and 2.16 TPY of PM emissions.
3745-31-05 (G) (2)	3745-21-07	*	*	*
3745-21-07 (G) (2)	3745-31-05	8 pounds/hour and 23 pounds/day of OC emissions from the production operation. 26 pounds/day and 4.75 TPY of OC emissions from the production operations and cleanup operations, combined.	3.02 pounds/hour and 20 pounds/day of OC emissions from the production operation. 25 pounds/day and 4.56 TPY of OC emissions from the production operations and cleanup operations, combined.	2.74 pounds/hour and 21 pounds/day of OC emissions from the production operation. 26 pounds/day and 4.75 TPY of OC emissions from the production operations and cleanup combined.
3745-31-05 (G) (2)	3745-21-07	Visible particulate emissions from any	Visible particulate emissions from any stack shall not exceed twenty percent	Visible particulate emissions from any stack shall not exceed twenty percent

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as provided by rule.	emissions from the production operations and cleanup operations, combined.	from the production operation. 14 pounds/day and 2.55 TPY of OC emissions from the production operations and cleanup operations, combined.	Visible particulate emissions from any stack shall not exceed twenty percent opacity as a six-minute average, except as provided by rule.	emissions from any stack shall not exceed twenty percent opacity as a six-minute average, except as provided by rule.
* 0.38 pound/hour and 1.66 TPY of PM emissions.	Visible particulate emissions from any stack shall not exceed twenty percent opacity as a six-minute average, except as provided by rule.	Visible particulate emissions from any stack shall not exceed twenty percent opacity as a six-minute average, except as provided by rule.	* 0.04 pound/hour and 0.16 TPY of PM emissions.	* 0.09 pound/hour and 0.40 TPY of PM emissions.
2.44 pounds/hour and 16 pounds/day of OC emissions from the production operation.	except as provided by rule.	0.07 pound/hour and 0.28 TPY of PM emissions.	1.56 pounds/hour and 10 pounds/day of OC emissions from the production operation. 13 pounds/day and 2.37 TPY of OC emissions from the production operations and cleanup operations, combined.	1.70 pounds/hour and 10 pounds/day of OC emissions from the production operation. 13 pounds/day and 2.37 TPY of OC emissions from the production operations and cleanup operations, combined.
* 21 pounds/day and 3.83 TPY of OC emissions	0.28 pound/hour and 1.24 TPY of PM emissions.	1.62 pounds/hour and 10 pounds/day of OC emissions from the production operation. 13 pounds/day and 2.37 TPY of OC emissions from the production operations and cleanup operations, combined.	Visible particulate	Visible particulate emissions from any stack shall not exceed

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twenty percent opacity as a six-minute average, except as provided by rule.	day and 9.13 TPY of OC emissions from the production operations and cleanup operations, combined.	and 9.13 TPY of OC emissions from the production operations and cleanup operations, combined.	except as provided by rule.	0.14 pound/hour and 0.60 TPY of PM emissions.
*	Visible particulate emissions from any stack shall not exceed twenty percent opacity as a six-minute average, except as provided by rule.	Visible particulate emissions from any stack shall not exceed twenty percent opacity as a six-minute average, except as provided by rule.	* 0.05 pound/hour and 0.24 TPY of PM emissions.	*
0.05 pound/hour and 0.24 TPY of PM emissions.	twenty percent opacity as a six-minute average, except as provided by rule.	* 0.05 pound/hour and 0.24 TPY of PM emissions.	8 pounds/hour and 40 pounds/day of OC emissions from the production operation.	7 pounds/day and 1.27 TPY of OC emissions from the production operations and cleanup operations, combined.
8 pounds/hour and 40 pounds/day of OC emissions from the production operation.	* 0.05 pound/hour and 0.24 TPY of PM emissions.	8 pounds/hour and 40 pounds/day of OC emissions from the production operation.	50 pounds/day and 9.13 TPY of OC emissions from the production operations and cleanup operations, combined.	Visible particulate emissions from any stack shall not exceed twenty percent opacity as a six-minute average, except as provided by rule.
8 pounds/hour and 40 pounds/day of OC emissions from the production operation.	* 0.05 pound/hour and 0.24 TPY of PM emissions.	50 pounds/day and 9.13 TPY of OC emissions from the production operations and cleanup operations, combined.	Visible particulate emissions from any stack shall not exceed twenty percent opacity as a six-minute average, except as provided by rule.	*
50 pounds/day	8 pounds/hour and 40 pounds/day of OC emissions from the production operation.	8 pounds/hour and 40 pounds/day of OC emissions from the production operations and cleanup operations, combined.	20 percent opacity as a six-minute average, except as provided by rule.	0.14 pound/hour and 0.60 TPY of PM emissions.
50 pounds/day	50 pounds/day	Visible particulate emissions from any stack shall not exceed twenty percent opacity as a six-minute average,	* 20 percent opacity as a six-minute average, except as provided by rule.	*
50 pounds/day	50 pounds/day	Visible particulate emissions from any stack shall not exceed twenty percent opacity as a six-minute average,	* 20 percent opacity as a six-minute average, except as provided by rule.	7 pounds/day and 1.27 TPY of OC emissions from the production operations and

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cleanup operations, combined.	ns. *	and 0.08 TPY of PM emissions. *	emissions from the production operations and cleanup operations, combined.	* 0.96 pound/hour, 11.5 pounds/day and 2.10 TPY of OC emissions
Visible particulate emissions from any stack shall not exceed twenty percent opacity as a six-minute average, except as provided by rule. *	1.06 pounds/hour and 12.7 pounds/day of OC emissions from the production operations, and cleanup operations, combined. Visible particulate emissions from any stack shall not exceed twenty percent opacity as a six-minute average, except as provided by rule. *	4.7 pounds/day of OC emissions from the production operation. 5 pounds/day and 0.91 TPY of OC emissions from the production operations and cleanup operations, combined. 8 pounds/hour and 40 pounds/day of OC emissions from the production operation. 60 pounds/day and 10.95 TPY of OC emissions from the production operations and cleanup operations, combined.	8 pounds/hour and 40 pounds/day of OC emissions from the production operation. 60 pounds/day and 10.95 TPY of OC emissions from the production operations and cleanup operations, combined. *	* 0.96 pound/hour, 11.5 pounds/day and 2.10 TPY of OC emissions from the production operations and cleanup operations, combined. * 7.2 pounds/day, and 1.31 TPY of OC emissions from the production operations and cleanup operations, combined. *
0.48 pound/hour and 2.11 TPY of PM emissions	0.02 pound/hour *	8 pounds/hour and 40 pounds/day of OC emissions from the production operation. 60 pounds/day and 10.95 TPY of OC	8 pounds/hour, 40 pounds/day and 7.3 TPY of OC emissions from the production operations and cleanup operations, combined.	0.82 pound/hour, 9.8 pounds/day and 1.79 TPY of OC emissions from the production operations and cleanup operations,

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combine d. *	operations and cleanup operations, combined.	operations and cleanup operations, combined.	1.93 TPY of OC emissions *	*
0.76 pound/hour, 9 pounds/day and 1.64 TPY of OC emissions from the product operation and cleanup operations, combined.	4.3 pounds/day, and 0.79 TPY of OC emissions from the production and cleanup operations, combined.	0.44 pound/hour, 10.56 pounds/day and 1.93 TPY of OC emissions *	0.44 pound/hour, 10.56 pounds/day and 1.93 TPY of OC emissions *	0.44 pound/hour, 10.56 pounds/day and 1.93 TPY of OC emissions *
18.1 pounds/day and 3.30 TPY of OC emissions from the cleanup operations.	18.1 pounds/day and 3.30 TPY of OC emissions from the cleanup operations.	0.44 pound/hour, 10.56 pounds/day and 1.93 TPY of OC emissions *	0.44 pound/hour, 10.56 pounds/day and 1.93 TPY of OC emissions *	0.44 pound/hour, 10.56 pounds/day and 1.93 TPY of OC emissions *
6.5 pounds/day, and 1.18 TPY of OC emissions from the product operation	1.46 pounds/hour, 17.5 pounds/day and 3.20 TPY of OC emissions from the production	0.44 pound/hour, 10.56 pounds/day and 1.93 TPY of OC emissions *	0.44 pound/hour, 10.56 pounds/day and 1.93 TPY of OC emissions *	0.74 pound/hour, 17.76 pounds/day and 3.24 TPY of OC emissions *
		0.44 pound/hour, 10.56 pounds/day and 1.93 TPY of OC emissions	0.44 pound/hour, 10.56 pounds/day and 1.93 TPY of OC emissions	0.74 pound/hour, 17.76 pounds/day and 3.24 TPY of OC emissions

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	day and 3.24 TPY of OC emissions	0.37 pound/hour, 8.88 pounds/day and 1.62 TPY of OC emissions	0.37 pound/hour, 8.88 pounds/day and 1.62 TPY of OC emissions	
0.64 pound/hour, 13.68 pounds/day and 2.49 TPY of OC emissions	* 0.74 pound/hour, 17.76 pounds/day and 3.24 TPY of OC emissions	*	*	
		0.37 pound/hour, 8.88 pounds/day and 1.62 TPY of OC emissions		
		*	*	
0.64 pound/hour, 13.68 pounds/day and 2.49 TPY of OC emissions	* 0.64 pound/hour, 13.68 pounds/day and 2.49 TPY of OC emissions	0.37 pound/hour, 8.88 pounds/day and 1.62 TPY of OC emissions	0.37 pound/hour, 8.88 pounds/day and 1.62 TPY of OC emissions	
		0.37 pound/hour, 8.88 pounds/day and 1.62 TPY of OC emissions	*	
		*	*	
0.74 pound/hour, 17.76 pounds/day	* 0.37 pound/hour, 8.88 pounds/day and 1.62 TPY of OC emissions	0.37 pound/hour, 8.88 pounds/day and 1.62 TPY of OC emissions	0.37 pound/hour, 8.88 pounds/day and 1.62 TPY of OC emissions	
		*	*	

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Mod. identifies a modification, where the annual allowable emissions have either increased or decreased from the allowable limit noted in the original Permit-to-Install (PTI 02-8922).

* The emissions limit 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>	<u>Tons/Year Increase</u>
PM	12.88	0
OC	188.39	54.89

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RECORD(S) RETENTION AND AVAILABILITY

All records required by this Permit to Install shall be retained on file for a period of not less than three years unless otherwise indicated by Ohio Environmental Protection Agency. All records shall be made available to the Director, or any representative of the Director, for review during normal business hours.

REPORTING REQUIREMENTS

Unless otherwise specified, reports required by the Permit to Install need only be submitted to **Ohio EPA, Northeast District Office, 2110 E. Aurora Road, Twinsburg, OH 44087.**

WASTE DISPOSAL

The owner/operator shall comply with any applicable state and 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, Northeast District Office, 2110 E. Aurora Road, Twinsburg, OH 44087.**

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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.

ADDITIONAL SPECIAL TERMS AND CONDITIONS

Introduction

The company manufactures thermoset composite molding compounds and molded parts. This permit increases the OC allowable limits at two dispersers (P010-P011), four BMC mixers (P021-P024), three compounding operations (P029-P031) and twenty-four mold presses (P041-P051, P053, P054, P057, P058 and P060-P069). This permit decreases the OC allowable emissions at eight dispersers (P012-P018 and P028).

Styrene throughput restrictions at P010-P018, P025-P028, and P033-P040 as well as restrictions on mold compound usage at P041-P069 are included to limit volatile organic compound emissions.

A. Operational Requirements

1. Only non-photochemically reactive cleanup materials shall be employed at (P010-P018 and P021-P040). A photochemically reactive material is defined by OAC rule 3745-21-01(C)(5) and is determined at the time the material is employed.
2. The permittee shall employ the following practices to minimize waste and limit air contaminant emissions at the pipe and pump cleaning operations (P039):
 - a. self-closing containers shall be employed at each work station;
 - b. employees shall be trained to clean parts efficiently with adequate amounts of solvents; and,
 - c. alternate cleaning procedures (i.e. wipe down of waste resin on parts prior to solvent cleaning) shall be employed whenever possible.

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3. The maximum styrene throughput for the emissions units shall not exceed the rates specified in the following table:

<u>Emissions Unit No.</u>	<u>Emissions Unit Description</u>	<u>Max. Styrene Throughput lbs/day</u>
P010	Dispenser C-0	51,400
P011	Dispenser C-1	78,800
P012	Dispenser C-2	68,400

<u>Emissions Unit No.</u>	<u>Emissions Unit Description</u>	<u>Throughput lbs/day</u>
P013	Dispenser C-3	72,000
P014	Dispenser C-4	54,800
P015	Dispenser C-5	30,800
P016	Dispenser C-6	34,200
P017	Dispenser C-7	34,200
P018	Dispenser C-8	34,200
P025	BMC Mixer No. 5	7,000

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P026	BMC Mixer No. 6	7,000
P027	BMC Mixer Nos. 1 & 2	12,700
P028	Two Pilot Dispensers	16,000
P033	Extrusion Machine No. 4	11,500
P034	Extrusion Machine No. 5	7,200
P035	Extrusion Machine No. 1	9,800
P036	Extrusion Machine No. 2	9,000
P037	Extrusion Machine No. 3	6,500
P038	Extrusion Machine No. 3.5	4,300
P040	TMC Roller	17,500

4. The maximum mold compound usage for the emissions units shall not exceed the rates specified in the following table:

Maximum Mold		
<u>Emissions Unit No.</u>	<u>Emissions Unit Description</u>	<u>Compound Usage lbs/day*</u>
P041	Mold Press A-6	7,880
P042	Mold Press B-6	7,880
P043	Mold Press D-4	7,880
P044	Mold Press D-6	7,880

Maximum Mold		
<u>Emissions Unit No.</u>	<u>Emissions Unit Description</u>	<u>Compound Usage lbs/day*</u>

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P045-P051	Mold Presses E-1 to E-7	7,880	each
P052	Mold Press G-1	7,880	
P053	Mold Press G-2	13,200	
P054	Mold Press G-3	13,200	
P055	Mold Press G-4	10,200	
P056	Mold Press G-5	10,200	
P057	Mold Press G-6	13,200	
P058	Mold Press G-7	13,200	
P059	Mold Press G-8	10,200	
P060-P069	Mold Presses H-0 to H-9	6,600	each

* for mold compounds with a styrene content of 18 percent, by weight, or less.

5. 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 was (were) established using the Ohio EPA's "Air Toxic Policy" and is (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:

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Emission Unit(s) ID	Pollutant	Threshold Limit Value (TLV) ($\mu\text{g}/\text{m}^3$)	Maximum Hourly Emission Rate (lbs/hr)	Predicted 1 Hour Maximum Ground Level Concentration ($\mu\text{g}/\text{m}^3$)	Maximum Acceptable Ground Level Concentration (MAGLC), ($\mu\text{g}/\text{m}^3$)
P010 & P011	Styrene	85,000	15.1	478.5	
P012-P018	Styrene	85,000	7.64	242.0	
P021 - P024	Styrene	85,000	30.9	301.2	
P027, P033, P035 & P036	Styrene	85,000	1.80	205.8	
P040	Styrene	85,000	0.73	129.5	
P041, P042, P045-P052 & P060-P069	Styrene	85,000	3.7	157.4	
P043 & P044	Styrene	85,000	0.27	40.03	
P053 & P054	Styrene	85,000	0.70	11.39	
P055, P056 & P059	Styrene	85,000	0.21	16.74	
P057	Styrene	85,000	0.35	94.43	
P058	Styrene	85,000	0.35	27.50	
Combination of all styrene emissions	Styrene			1705.49	2,024
P010 - P018	Ethyl Acetate	1,440,000	1.46	46.20	
P021 - P024	Ethyl Acetate	1,440,000	8.33	81.09	
P029 - P031	Ethyl Acetate	1,440,000	7.5	73.01	
Combination of all ethyl acetate emissions	Ethyl Acetate			200.3	34,286

OAC Chapter 3745-31 requires permittees to apply for and obtain a new

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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,
 - 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.
6. 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.

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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.

B. Recordkeeping Requirements

DISPERSERS (P010-P018 and P028), BMC MIXERS (P021-P027)
COMPOUNDING MACHINES (P029-P032),
EXTRUSION MACHINES (P033-P038) and TMC ROLLER (P040)

1. The permittee shall collect and record the following information for each day for each above named emissions unit:
 - a. the company identification for each production material and cleanup material employed;
 - b. the actual number of hours that the emissions unit was in operation;
 - c. the weight of each production material employed, in pounds;
 - d. the styrene content of each production material employed, in percent by weight;
 - e. the styrene throughput of all production materials, in pounds;
 - f. the weight of each cleanup material dispensed, in pounds;
 - g. the weight of each cleanup material returned, in pounds;
 - h. the total organic compound emission rate for the combination of all cleanup materials, in pounds;
 - i. the total organic compound emission rate for the combination of all production materials, in pounds;
 - j. (for each of P010-P018, P021-P024 and P029-P031 only) the average hourly organic compound emission rate for all production materials, i.e., (i) divided by (b), in pounds per hour (average);

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k. (for each of P010-P018, P021-P027, P029-P038 & P040 only) the total organic compound emission rate for the production operations and cleanup operations, combined; i.e., the sum of (h) and (l), in pounds per day; and,

l. (for each of P027, P032, P033, P035, P036, & P040 only) the average hourly organic compound emission rate for the production operations and cleanup operations, combined, i.e. (k) divided by (b), in pounds per hour (average).

PIPE & PUMP CLEANING OPERATIONS (P039)

2. The permittee shall collect and maintain monthly records of the following information for the cleanup operations:

- a. the company identification for each cleanup material employed;
- b. documentation on whether or not each cleanup material is a photochemically reactive material, as employed, in accordance with OAC rule 3745-21-01(C)(5);
- c. the actual number of days that the emissions unit was in operation;
- d. the total weight of cleanup material added to the cleaning tanks, in pounds;
- e. the total weight of waste cleanup material that is disposed, in pounds;
- f. the total evaporated cleanup material, in pounds; and,
- g. the average daily organic compound emission rate, i.e., (f) divided by (c), in pounds per day (average).

MOLD PRESSES (P041-P069)

3. The permittee shall collect and record the following information for each day for each mold press:

- a. the company identification for each mold compound employed;

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- b. the number of pounds of each mold compound employed;
- c. the total organic compound emission rate for all mold compounds employed, in pounds per day;
- d. the total number of hours the emissions unit was in operation; and,

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e. the average hourly organic compound emission rate for all mold compounds employed, i.e., c/d, in pounds per hour (average).

ALL EMISSIONS UNITS (P010-P018 AND P021-P069)

4. All records, required by terms B.1-B.3., as well as any supporting analyses and computations, shall be retained in the company's files for a period of not less than five years and shall be made available to the Director or any authorized representative of the Director for review during normal business hours.

ALL EMISSIONS UNITS (P010-P018 and P021-P069)

5. The permittee shall collect and record the following information for each change where the air toxic modeling was required pursuant to the Air Toxic Policy:

- a. background data that describes the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.); and,
- b. a copy of the resulting computer model runs that show the results of the application of the Air Toxic Policy for the change.

C. Reporting Requirements

EMISSIONS UNITS (P010-P018, P025-P028, P033-P038 and P040)

1. The permittee shall submit annual reports that identify any exceedances of the daily styrene throughput limitation, as specified in Term A.3., at any of the above named emissions units, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted by January 31 of each year for the previous calendar year.

EMISSIONS UNITS (P010-P018 and P021-P040)

2. The permittee shall submit quarterly deviation (excursion) reports, which include the following information, to the Ohio EPA Northeast District Office for each above named emissions unit:

- a. (for each of P010-P018, P021-P024, P029-P031 only), an

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identification of each day during which the average hourly organic compound emission rate exceeded 8 pounds per hour from the production operations, and the actual average hourly emission rate, in pounds per hour, for each such day;

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b. (for each of P010-P018 and P028 only) an identification of each day during which the organic compound emission rate exceeded the daily limit for production operations specified in the Air Emissions Summary, and the actual emission rate in pounds per day for each such day;

c. (for each of P010-P018 and P025-P028 only) an identification of each day during which the organic compound emission rate exceeded the daily limit for all operations specified in the Air Emissions Summary, and the actual emission rate in pounds per day for each such day;

d. (for P027, P032, P033, P035, P036 and P040 only), an identification of each day during which the average hourly organic compound emission rate exceeded 8 pounds per hour from the production operations and cleanup operations, combined, and the actual average hourly emission rate, in pounds per hour, for each such day;

e. (for each of P021-P024 and P029-P031 only), an identification of each day during which the organic compound emission rate exceeded 40 pounds per day from the production operations, and the actual emission rate in pounds per day for each such day;

f. (for each of P021-P024 only), an identification of each day during which the organic compound emission rate exceeded 50 pounds per day from all operations, and the actual emission rate in pounds per day for each such day;

g. (for each of P029-P031 only) an identification of each day during which the organic compound emissions exceeded 60 pounds per day from all operations, and the actual emission rate in pounds per day for each such day;

h. (for each of P032-P038 and P039) an identification of each day during which the organic compound emissions exceeded the daily limit for all operations specified in the Air Emissions Summary, and the actual emission rate in pounds per day for each such day; and,

i. (for P039 only) an identification of each month during which the average, daily organic compound emission rate exceeded 18.1 pounds

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per day, and the actual, average, daily emission rate in pounds per day for each such day.

MOLD PRESSES (P041-P069)

3. The permittee shall submit annual reports that identify any exceedances of the daily mold compound usage limitation for any mold press as specified in Term A.4., as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted by January 31 of each year. for the previous calendar year.

4. The permittee shall submit quarterly deviation (excursion) reports, which include the following information, to the Ohio EPA Northeast District Office for each above named emissions unit:

a. an identification of each day during which the average hourly organic compound emission rate exceeded the hourly limit from the production operations specified in the Air Emissions Summary, and the actual average hourly emission rate, in pounds per hour, for each such day; and,

b. an identification of each day during which the daily organic compound emission rate exceeded the daily limit from the production operations specified in the Air Emissions Summary, and the actual daily emission rate, in pounds per hour, for each such day.

ALL EMISSIONS UNITS (P010-P018 and P021-P069)

5. The deviation (excursion) reports, as specified by Terms C.2. and C.4, 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. The permittee shall submit a description of any corrective actions taken to address any exceedance of any emission limitation. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter.

6. The permittee shall submit an annual report to the Ohio EPA Northeast District Office which includes the total OC emissions from each emissions unit for the previous calendar year. This report shall be submitted by April 15 of each year.

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D. Testing Requirements

EMISSIONS UNITS (P010-P018, P025-P028, P033-P038 and P040)

1. Compliance with the daily styrene throughput limits for all emissions units specified in term A.3. of this permit shall be determined in accordance with the following method(s):

$AS(\text{lbs/day}) = \text{Summation of } P_i \times SC_i.$

where:

$AS(\text{lbs/day}) =$ the available styrene.

$P_i =$ the production rate of material I, in pounds per day.

$SC_i =$ the styrene content of material I, in pounds of available styrene per pound of production material.

ALL EMISSIONS UNITS (P010-P018 and P021-P069)

2. Compliance with the daily organic compound emissions limitation(s) noted in the Air Emission Summary of this permit from production operations at the dispersers (P010-P018 & P028), the open BMC mixers (P021-P024), the closed BMC mixers (P026 & P027), the compounding machines (P029-P032), the extruders (P033-P038), and the TMC roller (P040) shall be determined in accordance with the following method(s):

$ES(\text{lbs/day}) = AS \times EF.$

where:

$ES(\text{lbs/day}) =$ the organic compound emissions as styrene from production operations, in pounds per day.

$EF(S/DISP) =$ emission factor for styrene emissions from the dispersers, which is 0.000292 pound per pound of available styrene, as determined from emissions testing on P012, conducted on June 11, 1998.

$EF(S/OBMC) =$ emission factor for styrene emissions from the open BMC mixers, which is 0.0125 pound per pound of available styrene, as determined from emissions testing on P022, conducted on September 18, 1997.

$EF(S/CBMC) = EF(S/CPMD) = EF(S/EXT) = EF(S/TMCROLL)$
 $=$ emission factor for styrene emissions from the closed BMC mixers, compounding machines, extruders or the TMC roller, which

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is 0.001 pound per pound of available styrene, as determined from engineering estimates.

3. Compliance with the daily organic compound emissions limitation(s) noted in the Air Emission Summary of this permit from all operations at the dispersers (P010-P018 & P028), the BMC mixers (P021-P027), the compounding machines (P029-P032), the extruders (P033-P038), and the TMC roller (P040) shall be determined in accordance with the following method(s):

a. Determination of daily emissions from production operations, ES(lbs/day), shall be made as discussed in term D.2.

b. Determination of daily emissions from cleanup operations, EC(lbs/day), shall be made in accordance with the following method(s):

$EC(\text{lbs/day}) = \text{Summation of } [(WC/OUT - WC/IN)_i]$
where:

$EC(\text{lbs/day}) =$ the organic compound emissions from cleanup operations, in pounds per day.

$WC/OUT_i =$ weight of cleanup material I dispensed to a work station, in pounds per day.

$WC/IN_i =$ weight of cleanup material I returned to solvent dispensing area, in pounds per day.

c. Determination of daily emissions from all operations, EOC(lbs/day), shall be determined in accordance with the following method(s):

$EOC(\text{lbs/day}) = ES(\text{lbs/day}) + EC(\text{lbs/day}).$

4. Compliance with the daily organic compound emissions limitation(s) noted in the Air Emission Summary of this permit from the pipe and pump cleaning operations (P039) shall be determined in accordance with the following method(s):

a. $EC(\text{lbs/month})$
= summation of $\{[(WC/OUT - (WC/IN \times PC/100))_i]$
where:

$EC(\text{lbs/month}) =$ the organic compound emissions from cleanup operations, in pounds per month.

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WC/OUT_i = weight of cleanup material I dispensed to cleaning tanks, in pounds per month.

WC/IN_i = weight of waste cleanup material I disposed to off-site waste handling facility, in pounds per month.

PC = average weight percentage of cleanup material solvent in waste cleanup material, as determined from methods required by Additional Special Term and Condition D.4.c.

b. $EC(\text{average lbs/day}) = EC(\text{lbs/month})/\text{DAYS}$.

where:

DAYS = the actual number of days the emission unit was in operation as determined from recordkeeping required by term B.2.c.

c. A determination shall be made of volatile organic compound content (percent by weight), solids content, and density of composite sample(s) of the waste cleanup material generated at the pipe and pump cleaning operations (P039). The composite waste sample(s) from the pipe and pump operations shall not be mixed with other wastes generated from different operations. The permittee shall determine the composition of the material from data determined by an analysis of each material, as generated, by US. EPA Reference Method 24 as referenced in 40 CFR Part 60, Appendix A or an equivalent, alternative method (as approved by Ohio EPA) performed on the material(s).

5. Compliance with the daily organic compound emissions limitation(s) noted in the Air Emission Summary of this permit from each of the mold presses (P041-P069) shall be determined in accordance with the following method(s):

$ES(\text{lbs/day}) = \text{Summation of } P_i \times EF$.

where:

$ES(\text{lbs/day})$ = the organic compound emissions as styrene from production operations, in pounds per day.

P_i = the production rate of material I, in pounds per day.

$EF(S/MP)$ = emission factor for styrene emissions from the

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mold presses, which is 0.00134 pound per pound of mold compound, as determined from a Society of Plastics Industry report, "Styrene Emissions during the Charging and Molding Cycle".

6. Compliance with the hourly organic compound emissions limitation(s) noted in the Air Emission Summary of this permit from production operations at the dispersers (P010-P018 & P028), four BMC mixers (P021-P024), three compounding machines (P029-P031), the extruders (P033-P038) shall be based upon the recordkeeping specified in section B.1.j. of these terms and conditions.

7. Compliance with the hourly organic compound emissions limitation(s) noted in the Air Emission Summary of this permit from production operations at the mold presses (P041-P069) shall be based upon the recordkeeping specified in section B.3.e. of these terms and conditions.

8. Compliance with the hourly organic compound emissions limitation(s) noted in the Air Emission Summary of this permit from all operations at the continuous BMC mixers (P027), pilot compounding machine (P032), extruders (P033, P035 & P036), the TMC roller (P040) shall be based upon the recordkeeping specified in section B.1.i. of these terms and conditions.

DISPERSERS (P012-P018 & P028) and BMC MIXERS (P021-P027)

9. Compliance with the 20 percent opacity limit, as a six-minute average, on visible particulate matter emissions for each of the above named emissions units shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in U.S. EPA Reference Method 9.

10. Compliance with the hourly particulate matter emissions limitation(s) noted in the Air Emission Summary of this permit for each of the above named emissions units shall be determined by calculation of the actual worst case emission rate for particulate matter in accordance with the following method(s):

a. determination of maximum, available, hourly PM content for all mixes:

$$\text{HPM} = \text{DSC}/100 \times \text{P}$$

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HPM = maximum, available PM content, in pounds of available PM per hour.

DSC = the maximum, dry solids content of the production material, in percent by weight.

P = the maximum production rate, in pounds per hour.

b. To calculate emissions from production operations for purposes of determining compliance with the hourly, PM emission limitations of this permit, the permittee shall employ the following:

$$\text{EPM(lbs/hr)} = \text{HPM} \times \text{EF} \times (1 - \text{CE})$$

EPM (lbs/hr) = maximum hourly, PM emissions, in pounds per hour.

EF = the emission factor for PM emissions, which is 0.01 pound of uncontrolled PM per pound of available PM content, as noted in section 6.4 of AP-42 for paint and varnish manufacturing.

CE = control efficiency of PM control device, 0.99 pound of controlled PM per pound of uncontrolled PM, as specified in an application for PTI 02-8922.

11. Compliance with the annual particulate matter emissions limitation(s) noted in the Air Emission Summary of this permit from all operations is determined by multiplying the worst case hourly particulate matter emissions by 8,760 hours per year and then dividing by 2000 pounds per ton.

ALL EMISSIONS UNITS (P010-P018 and P021-P069)

12. Compliance with the annual organic compound emissions limitation(s) noted in the Air Emission Summary of this permit from all operations is determined by summing the total, daily organic compound emissions and then dividing the sum by 2000 pounds per ton.

EMISSIONS UNITS (P010-P018, P021-P038 and P040-P069)

13. Any determination of organic compound content (percent by weight), solids content, or density of a material shall be based on the material as employed, including the addition of any thinner or viscosity reducer to the material. The permittee shall determine the composition of the material by formulation data supplied by the manufacturer or from data determined by an analysis of each material, as received, by U.S. EPA Reference Method 24 as

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referenced in 40 CFR Part 60, Appendix A. If formulation data is employed, the Ohio EPA may require the permittee to have a Reference Method 24 analysis or an equivalent, alternative method (as approved by Ohio EPA) performed on the material(s).

E. Misc Requirements

None.