

SUPPLEMENT to PERMIT No. 303-00A
Quantum Composites Inc
Bay City, Michigan
August 9, 2001

GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, altered, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. [R 336.1201(1)]
2. If the installation, reconstruction, relocation, or alteration of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the person to whom this permit was issued, or the designated authorized agent, shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, PO Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or alteration of the equipment allowed by this Permit to Install. [R 336.1201(4)]
3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to R 336.1210, operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. [R 336.1201(6)(b)]
4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. [R 336.1201(8), Section 5510 of Act 451, PA 1994]
5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to R 336.1219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of R 336.1219. The written request shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality. [R 336.1219]
6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. [R 336.1901]
7. The owner or operator of a source, process, or process equipment shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant in excess of standards for more than one hour, or of any air contaminant in excess of standards for more than two hours, as required in this

- rule, to the District Supervisor, Air Quality Division. The notice shall be provided no later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the District Supervisor within 30 days, with the information required in this rule. [R 336.1912]
8. Approval of this permit does not exempt the person to whom this permit was issued from complying with any future applicable requirements which may be promulgated under Part 55 of Act 451, PA 1994 or the Federal Clean Air Act.
 9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.
 10. Operation of this equipment may be subject to other requirements of Part 55 of Act 451, PA 1994, and the rules promulgated thereunder.
 11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of R 336.1301, a person shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with R 336.1303. [R 336.1301]
 - a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
 - b) A visible emission limit specified by an applicable federal new source performance standard.
 - c) A visible emission limit specified as a condition of this permit to install.
 12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in R 336.1370(2). [R 336.1370]
 13. Except as allowed by Rule 285 (a), (b), and (c), permittee shall not substitute any fuels, coatings, nor raw materials for those described in the application and allowed by this permit, nor make changes to the process or process equipment described in the application, without prior notification to and approval by the Air Quality Division. [R 336.1201(1)]
 14. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001. [R 336.2001]

SPECIAL CONDITIONS
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Emission unit identification:

Emission Unit	Emission Unit Description	Control Equipment	Stack ID
EUSMCI	Sheet molding compound (SMC) process that includes rollers with carrier film, doctor boxes that apply the paste to the carrier film, fiber chopper that chops and applies the fibers onto the paste, and a compaction section that compacts the SMC into a sheet, heat is applied, then the SMC is rolled or boxed for shipment, and finally stored prior to shipment.	Torit dust collector and VTI dust collector	Stack 14, Stack 15
EUSMCII	Sheet molding compound process (see EUSMC1 description minus heat application)	VTI dust collector which is then vented to the energy recovery unit	Stack 15
EUSMCIII	Sheet molding compound process (see EUSMC1 description minus heat application)	VTI dust collector which is then vented to the energy recovery unit	Stack 15
EUMIXERS	6 different mixers that blend the paste used in making the sheet molding compound. Mixer sizes: 2 - 5 gallon, 50 gallon, 75 gallon, 150 gallon and 330 gallon	VTI dust collector which is then vented to the energy recovery unit	Stack 15
EUBMCMIXER	300 gallon Littleford bulk molding compound (BMC) mixer. BMC is composed of resinous paste, fillers and product enhancers.	VTI dust collector which is then vented to the energy recovery unit	Stack 15
EUSOLVENT	Solvents used for clean up	None	None

Flexible Group Identification:

Flexible Group	Emission Units Included in Flexible Group
FGFACILITY	EUSMCI, EUSMCII, EUSMCIII, EUMIXERS, EUBMCMIXER, EUSOLVENT

EUSMCI, EUSMCII, EUSMCIII, EUMIXERS, EUBMCMIXER

- The total combined volatile organic compound (VOC) emission rate from EUSMCI, EUSMCII, EUSMCIII, EUMIXERS, and EUBMCMIXER shall not exceed 63.6 pounds per hour nor 17.8 tons per year, based upon a 12-month rolling time period as determined at the end of each calendar month. [R336.1702(a)]

2. The total combined toxic air contaminant (TAC) emission rates from EUSMCI, EUSMCII, EUSMCIII, EUMIXERS, and EUBMCMIXER shall not exceed the emission rates listed below. The annual limits shall be based upon a 12-month rolling time period as determined at the end of each calendar month.

<u>TOXIC AIR CONTAMINANT</u>	<u>POUNDS PER HOUR</u>	<u>TONS PER YEAR</u>
Styrene	3.3	Less than 9 tons per year
Formaldehyde	0.06	0.23
Phenol	0.14	0.61
Maleic anhydride	0.11	0.52
Methanol	60.0	7.42

[R336.1205(3), R336.1225]

3. The particulate emission rate from EUSMCI, EUSMCII, EUSMCIII, EUMIXERS, and EUBMCMIXER shall not exceed 0.06 pound per 1,000 pounds of exhaust gases. [R336.1331]
4. Applicant shall not process carbon fiber materials in EUSMCI unless the Torit dust collector is installed and operating properly. [R336.1331]
5. Applicant shall not operate EUSMCI, EUSMCII, EUSMCIII, EUMIXERS, and EUBMCMIXER unless the VTI dust collector is installed and operating properly. Proper operation of the dust collector includes but is not limited to following the manufacturer's specifications for pressure drop, monitoring pressure drop, and recording a reading of pressure drop once per shift. These records shall be kept on file for a period of at least five years and made available to the Department upon request. [R336.1331]
6. Applicant shall not produce more than 5,382,000 pounds of SMC per month and not more than 64,584,000 pounds of SMC per 12 month rolling time period as determined at the end of each calendar month. Records of the amount of SMC produced each month shall be kept on file for a period of at least five years and made available to the Department upon request. [R336.1205(3), R336.1225, R336.1702(a)]
7. Applicant shall not produce more than 6,350 pounds of methanol containing material per month. Applicant shall keep records of the amount of methanol used per month and the amount of methanol containing material produced each month. These records shall be kept on file for a period of at least five years and made available to the Department upon request. [R336.1205(3), R336.1225, R336.1702(a)]
8. Applicant shall not produce more than 3,240 pounds of BMC per hour based upon a calendar day averaging period, not more than 15,000 pounds of BMC per month, and not more than 180,000 pounds of BMC per 12-month rolling time period as determined at the end of each calendar month. Hourly, monthly, and 12-month rolling time period records of the amount of BMC produced shall be kept on file for a period of at least five years and made available to the Department upon request. [R336.1205(3), R336.1225, R336.1702(a)]

9. The exhaust gases from EUSMCI, EUSMCII, EUSMCIII, and EUBMCMIXER shall be discharged unobstructed vertically upwards to the ambient air from stacks with maximum diameters and at exit points with minimum heights above ground level as listed below.

<u>STACK ID #</u>	<u>DIAMETER (inches)</u>	<u>STACK HEIGHT (feet)</u>
14	14	40
15	48	37

[R336.1225, R336.1702(a)]

EUSOLVENT

10. The net cleaning solvent usage rate shall not exceed 100 gallons per month. Net usage means the quantity used for cleaning minus the quantity reclaimed. Records of the amount of cleaning solvent used each month shall be kept on file for a period of at least five years and made available to the Department upon request. [R336.1225]

FGFACILITY

11. Applicant shall keep the following records:
- HAP and VOC emission calculations including hourly (based upon a calendar day averaging period) and monthly emission rates.
 - Monthly calculations of each HAP emission rate in tons per month and tons per 12-month rolling time period.
 - Monthly calculations of aggregate HAPs emission rates in tons per month and tons per 12-month rolling time period.
 - Monthly calculations of the VOC emission rate in tons per month and tons per 12-month rolling time period.

These records shall be kept on file for a period of at least five years and made available to the Department upon request. [R336.1205(3), R336.1225, R336.1702(a)]

Stationary Source

12. The hazardous air pollutant (HAP) emissions, as defined pursuant to Section 112(b) of the Clean Air Act, shall be less than 9 tons per year for any individual HAP and 22 tons per year for any combination of HAPs at this stationary source. The annual limit shall be based upon a 12-month rolling time period as determined at the end of each calendar month. [R336.1205(3)]
13. Applicant shall keep the following records for the Stationary Source including records for exempt equipment:
- Monthly calculations of each HAP emission rate in tons per month and tons per 12-month rolling time period.

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- Monthly calculations of aggregate HAPs emission rates in tons per month and tons per 12-month rolling time period.

These records shall be kept on file for a period of at least five years and made available to the Department upon request. [R336.1205(3), R336.1225, R336.1702(a)]