

SUPPLEMENT to PERMIT No. 570-96A  
Modular & Plastic Products, Inc.  
Niles, Michigan  
September 25, 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

The processes covered by this permit are defined hereinafter as the Flexible Group (FG) and Emission Units (EU), listed in the following Table 1. (R 336.1201)

**Table 1: Emission Unit and Stack Data**

<u>Flexible Group (FG)</u>	Emission Unit (EU)		ID Numbers	Stack (STK)		
	Operators ID	Process Description	AQD Process ID	AQD Stack ID	Maximum Diameter (inches)	Minimum Height (feet)
<u>FGFACILITY</u>	EUCELLCOAT	6 Work coating cells		NA	NA	NA
	EUPRESSES*	14 stations in encapsulation workcells include Primer Application Operations.	EU00001	SV00019	36	56
				SV00020	36	56
	EUSLIPCOAT1**	Slipcoat spray booth, 8H	EU00021	SV000	30	56
	EUSLIPCOAT2**	Slipcoat spray booth, 3V	EU00002	SV000	24	56
	EUSLIPCOAT3**	Slipcoat spray booth, 11H	EU00023	SV000	24	56
	EUSPRAYCOAT	6 Slipcoat spray operations within the encapsulation workcells		NA	NA	NA
EUMIXINGSTATION	adhesive mixing stations		NA	NA	NA	

\* Adhesives, primers, and cleaning solvents applied to the glass surface/parts in the encapsulation press workcells. The plastic injection molding operations associated with this process are exempt from Rule 201 permitting pursuant to Rule 286(b).

\*\* Primer application on glass surface & Clean-up Solvents Usage.  
 NA=Not available

1. The volatile organic compound (VOC) emission rate from the FGFACILITY shall not exceed 180 pounds per day nor 33.0 tons per year based on a 12-month rolling time period as determined at the end of each calendar month. (R 336. 1205, R 336.1225, R 336. 1702(a), and R 336. 1901).
2. The emission rate of hazardous air pollutants (HAPS), as defined pursuant to Section 112 (b) of the Clean Air Act, shall be less than 9.0 tons per year for any individual HAP and 22.5 tons per year for any combination of HAPS at this stationary source (all permitted emission units, all exempted emission units, and all grandfathered emission units). This annual limit shall be based upon a 12-month rolling time period as determined at the end of each calendar month. (R 336.1205(3))
3. The applicant shall maintain a current listing of the manufacturer's formulation data for each adhesive, coating, reducer, and cleanup or purge solvent used in FGFACILITY. In addition, the applicant shall keep a separate record, acceptable to the District Supervisor, of the following information:

- a) The number of days of operation per month.
- b) For each coating, adhesive, reducer, and cleanup solvent on a monthly basis:
  - i) The identification of the coating, adhesive, reducer, and cleanup solvent.
  - ii) The VOC content in pounds per gallon of each coating, adhesives, reducers and cleanup solvent (minus water) as received, and as applied.
  - iii) The total amount, in gallons, of coating, adhesive, reducer if any, and clean-up solvent as received and as used or applied.
  - iv) The mixing ratio, if any, of coating/adhesive to solvent, reducer, and/or thinner.
- c) For each coating, adhesive, reducer, and cleanup solvent on a monthly basis:
  - i) The identification of the HAP.
  - ii) The pounds per gallon or weight percentage of each HAP and the total amount used in gallons or pounds.
- d) VOC emission calculations for FGFACILITY in pounds per day as determined at the end of each calendar month.
- e) VOC, individual HAP, and combined HAP emission calculations for FGFACILITY in tons per month.
- f) VOC, individual HAP, and combined HAP emission calculations determining a 12-month rolling time period emission rate in tons per year for FGFACILITY as determined at the end of each calendar month.

All such records shall be kept on file for a period of at least five years and made available to the Air Quality Division upon request. Applicant may change from daily record keeping to monthly record keeping upon approval of the District Supervisor, Air Quality Division. (R 336.1205(3), R 336.1225, R 336.1702(a), R 336.1702(d), R 336.1901)

4. Applicant shall calculate the required VOC emission rates using the methods detailed in Appendices A, B, C and D, or an alternate method may be submitted to the District Supervisor for approval. This information shall be kept on file for a period of at least five years and made available to the Air Quality Division upon request. (R 336. 1205, R 336. 1702(a), and R 336. 1901).
5. The VOC content of the coatings as used as applied shall be determined using federal Reference Test Method 24. Upon prior approval of the District Supervisor, Air Quality Division, the VOC content may alternatively be determined from manufacturer's formulation data. (R 336.1702(a), R 336.1901, R 336.2001, R 336.2003, R 336.2004, R 336.2040)
6. Applicant shall not operate the EUSLIPCOAT1, EUSLIPCOAT2, and EUSLIPCOAT3 unless all exhaust filters are in place and operating properly. (R 336.1301, R 336.1331, R 336.1901, R 336.1910)
7. The applicant shall use High Volume Low Pressure (HVLP) guns as applicators or similar technology with comparable transfer efficiency. All applicators shall be properly installed, maintained and operated according to manufacturer's specifications. (R 336.1702(d))

8. The exhaust gases from the EUPRESSES, EUSLIPCOAT1, EUSLIPCOAT2, and EUSLIPCOAT3 shall be discharged unobstructed vertically upwards to the ambient air from the stacks identified in Table 1. (R 336.1225, R 336.1901, 40 CFR 52.21 Subpart (c) & (d)).
9. All waste coatings, adhesives, reducers, activators, and purge/cleanup solvents shall be captured and stored in closed containers and disposed of in an acceptable manner in compliance with all applicable rules and regulations. (R 336. 1205, R 336.1225, R 336. 1702(a), and R 336. 1901)
10. Applicant shall calculate the required HAP emission rates using the methods detailed in Appendix E, or an alternate method may be submitted to the District Supervisor for approval. This information shall be kept on file for a period of at least five years and made available to the Air Quality Division upon request. (R 336.1205(3))
11. The HAP content for each coating, reducer, activator and cleanup or purge solvent and any other spray booth coating as applied, and as received shall be determined using manufacturer's formulation data. Upon request of the District Supervisor, the HAP content of manufacturer's formulation data shall be verified using EPA Method 311 or an appropriate method acceptable to the District Supervisor. (R 336. 1205, R 336. 1702(a), R 336. 1901 R 336. 2001, and R 336. 2003)

Water Based Coatings, some VOC

Company: Modular & Plastic Products, Inc.  
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**APPENDIX B**

MONTH / YEAR \_\_\_\_\_

	A	B	C=A-B	D	E	F = D x E
COATING	ACTUAL GALLONS USED	ACTUAL GALLONS RECLAIMED	NET GALLONS USED	NET GALLONS USED (minus water)	LBS OF VOC PER GALLON (minus water)	LBS OF VOC

MONTHLY TOTAL TONS VOC EMITTED, **G** = SUM OF F/2000 --->

12 MONTH ROLLING AVERAGE TONS, **H** |  
 ---> |  
 (H = TOTAL OF PREVIOUS ELEVEN MONTHS + G)

MONTHLY LIMIT (if applicable), TONS ---> |

12 MONTH ROLLING AVERAGE LIMIT, TONS --->

VOC Solvent Based Coatings, With VOC Reducer, No Water

Company: Modular & Plastic Products, Inc.  
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**APPENDIX A**

MONTH / YEAR \_\_\_\_\_

	A	B	C = A - B	D	E = C x D
COATING OR REDUCER	GALLONS OF COATING OR REDUCER USED	GALLONS OF COATING OR REDUCER RECLAIMED	NET GALLONS OF COATING OR REDUCER USED	LBS OF VOC PER GALLON OF COATING OR REDUCER	LBS OF VOC

TOTAL TONS VOC EMITTED, F = SUM OF C/2000 --->

12 MONTH ROLLING AVERAGE TONS, G --->

G = Total of Previous Eleven Months + F

VOC Based Two Part Coatings, VOC Reducer, No Water

Company: Modular & Plastic Products, Inc.  
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**APPENDIX C**

MONTH / YEAR \_\_\_\_\_

	A	B	C	D		E	F	$G = (A \times B) + (C \times D) + (E \times F)$
COATING	NET GALS OF PART 'A' (USED MINUS RECLAIM) AS RECEIVED	LBS OF VOC PER GAL OF PART 'A' AS RECEIVED	NET GALS OF PART 'B' (USED MINUS RECLAIM) AS RECEIVED	LBS OF VOC PER GAL OF PART 'B' AS RECEIVED	REDUCER	NET GALS OF REDUCER (USED MINUS RECLAIM) AS RECEIVED	LBS OF VOC PER GAL OF REDUCER	LBS OF VOC

MONTHLY TOTAL TONS OF VOC EMITTED, **H** = SUM OF G/2000 --->

12 MONTH ROLLING AVERAGE TONS, **I** --->

(**I** = TOTAL OF PREVIOUS ELEVEN MONTHS + **H**)

MONTHLY LIMIT (if applicable), TONS --->

12 MONTH ROLLING AVERAGE LIMIT, TONS --->





VOC or Water Reducible Coatings, HAPS

Company  
 Permit No.

**APPENDIX E**

MONTH / YEAR \_\_\_\_\_

	A	B	C = A x B	D1	E=CxD1/100	D2	E=CxD2/100	D3	E=CxD3/100	D4	E=CxD4/100	D5
COATING OR REDUCER	GALLONS USED, AS RECEIVED	DENSITY LBS/GAL	LBS COATING / REDUCER	HAP #1 % BY WT	LBS HAP #1 (NAME)	HAP #2 % BY WT	LBS HAP #2 (NAME)	HAP #3 % BY WT	LBS HAP #3 (NAME)	HAP #4 % BY WT	LBS HAP #4 (NAME)	HAP #5 % BY WT

TOTAL TONS INDIVIDUAL HAPS EMITTED, F = SUM OF E/2000 ---->

12 MONTH ROLLING AVERAGE TONS INDIVIDUAL HAPS, G ---->

TOTAL TONS AGGREGATED HAPS, H = SUM OF ALL F ---->

12 MONTH ROLLING AVERAGE TONS AGGREGATE HAPS, J = SUM OF ALL G ---->