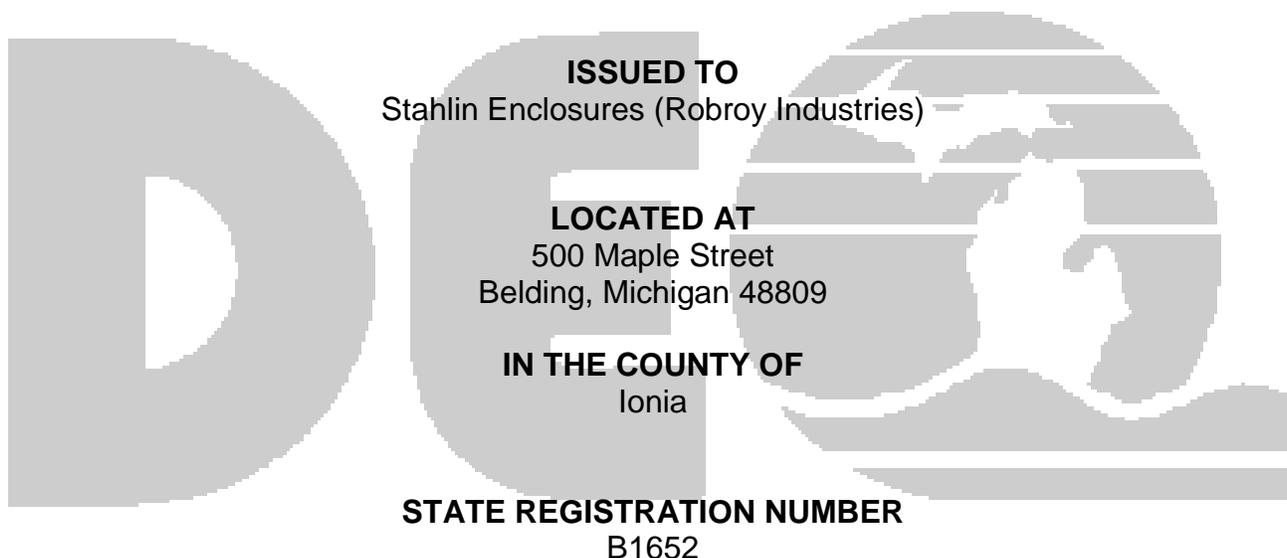


**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION**

November 12, 2008
Revised, August 18, 2009

PERMIT TO INSTALL
No. 183-05E



The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environmental Quality. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203: 10/9/2008	
DATE PERMIT TO INSTALL APPROVED: 11/12/2008	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

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Common Abbreviations / Acronyms

Common Acronyms		Pollutant/Measurement Abbreviations	
AQD	Air Quality Division	BTU	British Thermal Unit
ANSI	American National Standards Institute	°C	Degrees Celsius
BACT	Best Available Control Technology	CO	Carbon Monoxide
CAA	Clean Air Act	dscf	Dry standard cubic foot
CEM	Continuous Emission Monitoring	dscm	Dry standard cubic meter
CFR	Code of Federal Regulations	°F	Degrees Fahrenheit
COM	Continuous Opacity Monitoring	gr	Grains
EPA	Environmental Protection Agency	Hg	Mercury
EU	Emission Unit	hr	Hour
FG	Flexible Group	H ₂ S	Hydrogen Sulfide
GACS	Gallon of Applied Coating Solids	hp	Horsepower
GC	General Condition	lb	Pound
HAP	Hazardous Air Pollutant	m	Meter
HVLP	High Volume Low Pressure *	mg	Milligram
ID	Identification	mm	Millimeter
LAER	Lowest Achievable Emission Rate	MM	Million
MACT	Maximum Achievable Control Technology	MW	Megawatts
MAERS	Michigan Air Emissions Reporting System	ng	Nanogram
MAP	Malfunction Abatement Plan	NO _x	Oxides of Nitrogen
MDEQ	Michigan Department of Environmental Quality	PM	Particulate Matter
MIOSHA	Michigan Occupational Safety & Health Administration	PM10	PM less than 10 microns diameter
MSDS	Material Safety Data Sheet	PM2.5	PM less than 2.5 microns diameter
NESHAP	National Emission Standard for Hazardous Air Pollutants	pph	Pound per hour
NSPS	New Source Performance Standards	ppm	Parts per million
NSR	New Source Review	ppmv	Parts per million by volume
PS	Performance Specification	ppmw	Parts per million by weight
PSD	Prevention of Significant Deterioration	psia	Pounds per square inch absolute
PTE	Permanent Total Enclosure	psig	Pounds per square inch gauge
PTI	Permit to Install	scf	Standard cubic feet
RACT	Reasonably Available Control Technology	sec	Seconds
ROP	Renewable Operating Permit	SO ₂	Sulfur Dioxide
SC	Special Condition	THC	Total Hydrocarbons
SCR	Selective Catalytic Reduction	tpy	Tons per year
SRN	State Registration Number	µg	Microgram
TAC	Toxic Air Contaminant	VOC	Volatile Organic Compounds
TEQ	Toxicity Equivalence Quotient	yr	Year
VE	Visible Emissions		

* For High Volume Low Pressure (HVLP) applicators, the pressure measured at the HVLP gun air cap shall not exceed ten (10) pounds per square inch gauge (psig).

GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, 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, construction, reconstruction, relocation, or modification 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 permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification 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 AQD District Supervisor shall be notified, in writing, of a change in ownership or operational control of the stationary source or emission unit(s) authorized by this Permit to Install pursuant to R 336.1219. The notification shall include all of the information required by R 336.1219(1)(a) and (b). In addition, a new owner or operator must submit a written statement pursuant to R 336.1219(1)(c), agreeing to and accepting the terms and conditions of this Permit to Install, and shall notify the AQD District Supervisor of any change in the contact person for this Permit to Install. **(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 permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not 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 Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**
8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended 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 1994 PA 451, as amended 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, the permittee 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. 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

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Stack Identification	Flexible Group ID
EUNEWSMCPROC	New sheet molding compound (SMC) process that is an enclosed process up to the doctor box as required by the NSPS, this line is controlled by a room ventilation system that is vented to the ambient air.	SVNEWSMC	FGSMCPROCESSES
EUOLDSMCPROC	Old SMC process that is controlled by two fabric filter units in series. The existing sheet molding compound process line will remain in place and will be used for production and some research and development.	SVOLDSMC	FGSMCPROCESSES
EUTABLESAWDRILL	Table saw and drill press controlled by a fabric filter unit.	N/A	N/A
EUCLEANSOLV	Cleaning solvents used for cleaning various process equipment, at the facility.	N/A	N/A
Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290.			

The following conditions apply to: EUCLEANSOLV

Emission Limits

	Pollutant	Equipment	Limit	Time Period	Testing/ Monitoring Method	Applicable Requirement
1.1a	VOC	EUCLEANSOLV	15.0 TPY	12-month rolling time period as determined at the end of each calendar month.	SC 1.3	R 336.1225, R 336.1702(a)

Recordkeeping/Reporting/Notification

- 1.2 The permittee shall keep, in a satisfactory manner, records of the amount of cleaning solvents used at the facility on a monthly basis. The permittee shall keep all records on file at the facility for a period of at least five years and make them available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1702(a))**
- 1.3 The permittee shall calculate and keep, in a satisfactory manner, records of the VOC emissions from cleaning solvent usage at the facility on a monthly basis and 12-month rolling time period basis as determined at the end of each calendar month, as required by SC 1.1a. The permittee shall keep all records on file at the facility for a period of at least five years and make them available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1702(a))**

The following conditions apply to: EUTABLESAWDRILL

Emission Limits

	Pollutant	Equipment	Limit	Time Period	Testing/ Monitoring Method	Applicable Requirement
2.1a	Particulate Matter	EUTABLESAWDRILL	0.10 lb*	Test method	GC 13, SC 2.4	R 336.1331
* per 1000 lbs of exhaust gases, on a dry gas basis.						

Process/Operational Limits

- 2.2 The permittee shall not operate the table saw or drill press unless the fabric filter units are installed, maintained, and operated in a satisfactory manner. **(R 336.1331, R 336.1910)**
- 2.3 The permittee shall not operate EUTABLESAWDRILL unless an acceptable preventative maintenance plan for the fabric filter system has been submitted to the AQD District Supervisor within 30 days after permit issuance. The plan shall include, as a minimum, proper operating parameters, maintenance procedures and an inspection schedule in accordance with the manufacturer's specifications. If the plan fails to address or inadequately addresses proper operating parameters or preventative maintenance procedures, the permittee shall amend the plan and submit it to the AQD District Supervisor within 45 days after such a determination has been made. **(R 336.1331, R 336.1910)**

Monitoring

- 2.4 The permittee shall take daily visible emission observations of the collector outlet during peak operation. **(R 336.1301, R 336.1331)**

The following conditions apply to: EUOLDSMCPROC

Emission Limits

	Pollutant	Equipment	Limit	Time Period	Testing/ Monitoring Method	Applicable Requirement
3.1a	Particulate Matter	EUOLDSMCPROC	0.05 lbs*	Test Method	GC 13, SC 3.5, SC 3.6	R 336.1331(1)(a)
3.1b	Particulate Matter	EUOLDSMCPROC	0.7 pph	Test Method	GC 13, SC 3.5, SC 3.6	R 336.1331(1)(a)
* per 1000 lbs of exhaust gases, on a dry gas basis.						

Process/Operational Limits

- 3.2 The permittee shall not operate EUOLDSMCPROC unless the two baghouse units in series are installed, maintained, and operated in a satisfactory manner. **(R 336.1301, R 336.1331, R 336.1910)**
- 3.3 The permittee shall not operate EUOLDSMCPROC unless an acceptable preventative maintenance plan for the two baghouse units has been submitted to the AQD District Supervisor within 30 days after permit issuance. The plan shall include, as a minimum, proper operating parameters, maintenance procedures and an inspection schedule in accordance with the manufacturer's specifications. If the plan fails to address or inadequately addresses proper operating parameters or preventative maintenance procedures,

the permittee shall amend the plan and submit it to the AQD District Supervisor within 45 days after such a determination has been made. **(R 336.1301, R 336.1331, R 336.1910)**

Equipment

3.4 The permittee shall equip and maintain the two baghouse units in series with pressure drop monitoring devices. **(R 336.1331, R 336.1910)**

Monitoring

3.5 The permittee shall take daily visible emission observations of the collector outlet during peak operation. **(R 336.1301)**

3.6 The permittee shall monitor the pressure drop across each of the baghouse units on a daily basis for EUOLDSMCPROC. **(R 336.1331, R 336.1910)**

Recordkeeping/Reporting/Notification

3.7 The permittee shall keep records of the daily visible emission observations of the collector outlet of EUOLDSMCPROC on a daily basis. The permittee shall keep all records on file at the facility for a period of at least five years and make them available to the Department upon request. **(R 336.1301)**

3.8 The permittee shall keep records of the daily pressure drop readings for each of the baghouse units for EUOLDSMCPROC on a daily basis. The permittee shall keep all records on file at the facility for a period of at least five years and make them available to the Department upon request. **(R 336.1331)**

Stack/Vent Restrictions

	Stack & Vent ID	Maximum Diameter (inches)	Minimum Height Above Ground Level (feet)	Applicable Requirement
3.9a	SVOLDSMC	16	30.7	R 336.1301
The exhaust gases shall be discharged unobstructed vertically upwards to the ambient air.				

FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGSMCPROCESSES	Consists of the new and old SMC processes.	EUNEWSMCPROC, EUOLDSMCPROC
FGFACILITY	All process equipment source-wide including equipment covered by other permits, grand-fathered equipment and exempt equipment.	

The following conditions apply to: FGPROCESSES

Emission Limits

	Pollutant	Equipment	Limit	Time Period	Testing/ Monitoring Method	Applicable Requirement
4.1a	Styrene	EUNEWSMCPROC	5.7 pph	Test method	GC 13	R 336.1225, R 336.1702(a)
4.1b	Styrene	EUOLDSMCPROC	0.009 lb styrene emitted per lb of styrene available*	Test method	GC 13	R 336.1225, R 336.1702(a)
<p>*Emission factor is based on the pph limit for EUNEWSMCPROC. NOTE: The 0.009 lb styrene emitted per lb of styrene available emission factor (0.9%) is acceptable for calculating styrene emissions from both EUNEWSMCPROC and EUOLDSMCPROC, as required in SC 5.3. The emission factor is based on an acceptable stack test result for EUNEWSMCPROC. If a future stack test result is a higher emission rate than the permitted limit in SC 4.1a and the calculated emission factor is also higher, then the 0.9% emission factor will no longer be acceptable and the permit must be modified.</p>						

Process/Operational Limits

4.2 The permittee shall not operate FGSMCPROCESSES unless the permittee uses a nylon containing film to enclose the sheet molding compound (SMC). **(R 336.1225, R 336.1702(a))**

Equipment

4.3 The permittee shall not operate FGSMCPROCESSES unless the resin delivery system to the doctor box is closed or covered. The doctor box itself may be open. **(R 336.1225, R 336.1702(a), R 336.1910)**

Monitoring

4.4 The permittee shall monitor the usage rate of all raw materials containing HAPs in FGSMCPROCESSES and the styrene content of raw materials used in FGSMCPROCESSES on a daily basis. **(R 336.1225, R 336.1702(a))**

Recordkeeping/Reporting/Notification

- 4.5 The permittee shall keep monthly records of the following for FGSMC PROCESSES:
- The usage rate of all raw materials containing HAPs, in pounds per day.
 - The styrene content of all raw materials as a weight percentage.
- 4.6 The permittee shall keep all records on file at the facility for a period of at least five years and make them available to the Department upon request. **(R 336.1205(3), R 336.1225, R 336.1702(a))**

Stack/Vent Restrictions

	Stack & Vent ID	Maximum Diameter (inches)	Minimum Height Above Ground Level (feet)	Applicable Requirement
4.7a	SVNEWSMC	18	37	R 336.1225
The exhaust gases shall be discharged unobstructed vertically upwards to the ambient air.				

The following conditions apply Source-Wide to: FGFACILITY

Emission Limits

	Pollutant	Limit	Time Period	Equipment	Testing/Monitoring Method	Applicable Requirements
5.1a	Each Individual HAP	Less than 9 tpy	12-month rolling time period as determined at the end of each calendar month.	FGFACILITY	SC 5.3	R 336.1205(3)
5.1b	Total HAPs	Less than 22.5 tpy	12-month rolling time period as determined at the end of each calendar month.	FGFACILITY	SC 5.3	R 336.1205(3)

Recordkeeping/Reporting/Notification

- 5.2 All required calculations shall be completed in a format acceptable to the AQD District Supervisor and made available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition. **(R 336.1205(3))**
- 5.3 The permittee shall keep, in a satisfactory manner, records of monthly and 12-month rolling time period individual HAP and total HAP emission rate calculations for FGFACILITY, as required by SC 5.1a and SC 5.1b. The permittee shall keep all records on file at the facility for a period of at least five years and make them available to the Department upon request. **(R 336.1205(3))**