

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

JUNE 2, 2005

NEW SOURCE REVIEW PERMIT TO INSTALL
NO. 84-05

ISSUED TO
WEBASTO ROOF SYSTEMS, INC.

LOCATED AT
2700 PRODUCT DRIVE
ROCHESTER HILLS, MICHIGAN 48309

IN THE COUNTY OF
OAKLAND

STATE REGISTRATION NUMBER
N1276

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 Part 5505(1) of Article II, Chapter I, Part 55 (Air Pollution Control) of P.A. 451 of 1994. 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: 5/9/2005	
DATE PERMIT TO INSTALL APPROVED: 6/2/2005	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
BACT	Best Available Control Technology	°C	Degrees Celsius
CAA	Clean Air Act	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	dscf	Dry standard cubic foot
CFR	Code of Federal Regulations	dscm	Dry standard cubic meter
COM	Continuous Opacity Monitoring	°F	Degrees Fahrenheit
EPA	Environmental Protection Agency	gr	Grains
EU	Emission Unit	Hg	Mercury
FG	Flexible Group	hr	Hour
GACS	Gallon of Applied Coating Solids	H ₂ S	Hydrogen Sulfide
GC	General Condition	hp	Horsepower
HAP	Hazardous Air Pollutant	lb	Pound
HVLP	High Volume Low Pressure *	m	Meter
ID	Identification	mg	Milligram
LAER	Lowest Achievable Emission Rate	mm	Millimeter
MACT	Maximum Achievable Control Technology	MM	Million
MAERS	Michigan Air Emissions Reporting System	MW	Megawatts
MAP	Malfunction Abatement Plan	NO _x	Oxides of Nitrogen
MDEQ	Michigan Department of Environmental Quality	PM	Particulate Matter
MSDS	Material Safety Data Sheet	PM-10	Particulate Matter less than 10 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	Reasonable Available Control Technology	sec	Seconds
ROP	Renewable Operating Permit	SO ₂	Sulfur Dioxide
SC	Special Condition Number	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
VE	Visible Emissions	yr	Year

* 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. **[R336.1201(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. **[R336.1201(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 R336.1210, 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. **[R336.1201(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. **[R336.1201(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 R336.1219 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 R336.1219. The written request shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality. **[R336.1219]**
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. **[R336.1901]**
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). **[R336.1912]**
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 R336.1301, 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 R336.1303. **[R336.1301]**
 - 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 R336.1370(2). **[R336.1370]**
13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R336.2001 and R336.2003, under any of the conditions listed in R336.2001. **[R336.2001]**

SPECIAL CONDITIONS

Emission Unit Identification

Emission Unit ID	Emission Unit Description	Stack Identification
EU-W1-AIR1GLASS	Conveyorized automatic workcell located in W1 building. A robot applies a clear and black glass primer using a felt tip type applicator and then another robot applies a urethane based adhesive. A rubber seal and metal frame are manually applied to the glass product. Process includes MEK purge and ethanol wiping process.	SV-GLASSLINESTACK1
EU-W1-SRXGLASS	Conveyorized automatic workcell located in W1 building. A robot applies a clear and black glass primer using a felt tip type applicator and then another robot applies a urethane based adhesive. The frame is automatically applied to the glass panel by the robot. The glass seals are manually applied. Process includes MEK purge and ethanol wiping process.	SV-GLASSLINESTACK
EU-W1-BSEALANT	Butyl sealant applied to front rails and end caps of the sunroof assembly (frame) in the W1 building. The material is applied robotically within a workcell.	NA
EU-W2-AIR1GLASS	Conveyorized automatic workcell to be located in W2 building. A robot applies a clear and black glass primer using a felt tip type applicator and then another robot applies a urethane based adhesive. A rubber seal and metal frame are manually applied to the glass product. Process involves ethanol wiping and may include some MEK purging.	SV-GLASSLINESTACK2
EU-W2-BSEALANT	Butyl sealant applied to front rails and end caps of the sunroof assembly (frame) in the W1 building. The material is applied robotically within a workcell.	NA
Changes to the equipment described in this table are subject to the requirements of R336.1201, except as allowed by R336.1278 to R336.1290.		

Flexible Group Identification

Flexible Group ID	Emission Units Included in Flexible Group	Stack Identification
FG-W1-GLASSLINES	EU-W1-AIR1GLASS, EU-W1-SRXGLASS, EU-W1-BSEALANT	SV-GLASSLINESTACK1
FG-W2-GLASSLINE	EU-W2-AIR1GLASS, EU-W2-BSEALANT	SV-GLASSLINESTACK2
FGFACILITY	All process equipment at the stationary source including equipment covered by other permits, grandfathered equipment and exempt equipment.	NA

The following conditions apply to: FG-W1-GLASSLINES

Emission Limits

	Pollutant	Equipment	Limit	Time Period	Testing/ Monitoring Method	Applicable Requirements
1.1a	VOCs	FG-W1-GLASSLINES	13.0 tpy	12-month rolling time period as determined at the end of each calendar month	SC 1.6	R336.1702(a)

Process / Operational Limits

- 1.2 All waste materials (including but not limited to wipe rags, felt tip applicators, solvents, etc.) shall be captured and stored in closed containers and shall be disposed of in an acceptable manner in compliance with all applicable rules and regulations. **[R336.1702(a)]**

Testing

- 1.3 The VOC content, water content, and density of any primer, adhesive and/or sealant as applied and as received, shall be determined using federal Reference Test Method 24. Upon prior written approval by the AQD District Supervisor, the VOC content may be determined from manufacturer's formulation data. If the Method 24 and the formulation values should differ, the Method 24 results shall be used to determine compliance. **[R336.1225, R336.1702(a)]**

Recordkeeping /Reporting /Notification

- 1.4 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. **[R336.1225, R336.1702(a)]**
- 1.5 The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material (primer, adhesive, butyl sealant, etc.), including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1225, R336.1702(a), R336.1901]**
- 1.6 The permittee shall keep the following information on a monthly basis for each process within FG-W1-GLASSLINES and combined for all processes within FG-W1-GLASSLINES:
- a) Gallons (with water) of each material (primer, adhesive, sealant, etc.) used.
 - b) Gallons of each purge and/or cleanup solvent used.
 - c) VOC content of each material (primer, adhesive, sealant, cleanup/purge solvent, etc).
 - d) VOC mass emission calculations determining the monthly emission rate in tons per calendar month for all processes within FG-W1-GLASSLINES.
 - e) VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month for all processes within FG-W1-GLASSLINES.

The records shall be kept in a format acceptable to the AQD District Supervisor. All records shall be kept on file for a period of at least five years and made available to the Department upon request. [R336.1225, R336.1702(a)]

Stack / Vent Restrictions

Stack & Vent ID	Maximum Diameter (inches)	Minimum Height Above Ground Level (feet)	Applicable Requirement
1.7 SV-W1-GLASSLINESTACK1	21	29.5	R336.1225, R336.1901, 40 CFR 52.21(c) & (d)
The exhaust gases shall be discharged unobstructed vertically upwards to the ambient air.			

The following conditions apply to: FG-W2-GLASSLINE

Emission Limits

	Pollutant	Equipment	Limit	Time Period	Testing/ Monitoring Method	Applicable Requirements
2.1a	VOCs	FG-W2-GLASSLINE	14.7 tpy	12-month rolling time period as determined at the end of each calendar month.	SC 2.6	R336.1702(a)

Process / Operational Limits

2.2 All waste materials (including but not limited to wipe rags, felt tip applicators, solvents, etc.) shall be captured and stored in closed containers and shall be disposed of in an acceptable manner in compliance with all applicable rules and regulations. **[R336.1702(a)]**

Testing

2.3 The VOC content, water content, and density of any primer, adhesive and/or sealant as applied and as received, shall be determined using federal Reference Test Method 24. Upon prior written approval by the AQD District Supervisor, the VOC content may be determined from manufacturer’s formulation data. If the Method 24 and the formulation values should differ, the Method 24 results shall be used to determine compliance. **[R336.1225, R336.1702(a)]**

Recordkeeping /Reporting /Notification

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

2.5 The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material (primer, adhesive, butyl sealant, etc.), including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer’s formulation data, or both as deemed acceptable by the AQD District Supervisor. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **[R336.1225, R336.1702(a), R336.1901]**

2.6 The permittee shall keep the following information on a monthly basis for each process within FG-W2-GLASSLINE and combined for all processes within FG-W2-GLASSLINE:

- a) Gallons (with water) of each material (primer, adhesive, sealant, etc.) used.
- b) Gallons of each purge and/or cleanup solvent used.
- c) VOC content of each material (primer, adhesive, sealant, cleanup/purge solvent, etc).
- d) VOC mass emission calculations determining the monthly emission rate in tons per calendar month for all processes within FG-W2-GLASSLINE.
- e) VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month for all processes within FG-W2-GLASSLINE.

The records shall be kept in a format acceptable to the AQD District Supervisor. All records shall be kept on file for a period of at least five years and made available to the Department upon request. [R336.1225, R336.1702(a)]

Stack / Vent Restrictions

Stack & Vent ID	Maximum Diameter (inches)	Minimum Height Above Ground Level (feet)	Applicable Requirement
2.7 SV-W2-GLASSLINESTACK2	21	29.5	R336.1225, R336.1901, 40 CFR 52.21(c) & (d)
The exhaust gases shall be discharged unobstructed vertically upwards to the ambient air.			

The following conditions apply to: FGFACILITY

Emission Limits

	Pollutant	Equipment	Limit	Time Period	Testing/ Monitoring Method	Applicable Requirements
3.1a	Each Individual HAP	FGFACILITY	Less than 9.0 tpy	12-month rolling time period as determined at the end of each calendar month.	SC 3.4	R336.1205(3)
3.1b	Aggregate HAPs	FGFACILITY	Less than 22.5 tpy	12-month rolling time period as determined at the end of each calendar month.	SC 3.4	R336.1205(3)

Testing

3.2 The HAP content of any material used (primer, adhesive, sealant, cleanup/purge solvent, etc.) as received and as applied, shall be determined using manufacturer’s formulation data. Upon request of the AQD District Supervisor, the manufacturer’s HAP formulation data shall be verified using EPA Test Method 311. **[R336.1205(3)]**

Recordkeeping / Reporting / Notification

3.3 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. **[R336.1205(3)]**

3.4 The permittee shall keep the following information on a monthly basis for FGFACILITY:

- a) Gallons or pounds of each HAP containing material used.
- b) Where applicable, gallons or pounds of each HAP containing material reclaimed.
- c) HAP content, in pounds per gallon or pounds per pound, of each HAP containing material used.
- d) Individual and aggregate HAP emission calculations determining the monthly emission rate of each in tons per calendar month.
- e) Individual and aggregate HAP emission calculations determining the annual emission rate of each in tons per 12-month rolling time period as determined at the end of each calendar month.

The records shall be kept in a format acceptable to the AQD District Supervisor. All 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)]**