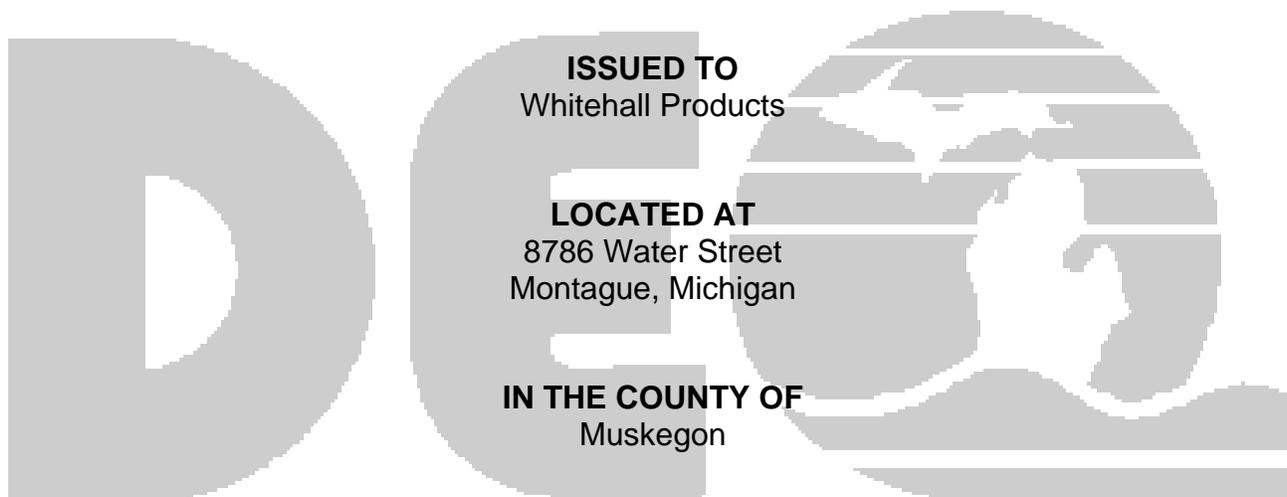


**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION**

June 20, 2007

**PERMIT TO INSTALL  
142-07**



**ISSUED TO**  
Whitehall Products

**LOCATED AT**  
8786 Water Street  
Montague, Michigan

**IN THE COUNTY OF**  
Muskegon

**STATE REGISTRATION NUMBER**  
B5169

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: <b>April 20, 2007</b>	
DATE PERMIT TO INSTALL APPROVED: <b>June 20, 2007</b>	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

**PERMIT TO INSTALL**

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**Common Abbreviations / Acronyms**

<b>Common Acronyms</b>		<b>Pollutant/Measurement Abbreviations</b>	
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 <sub>2</sub> 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	NOx	Oxides of Nitrogen
MAP	Malfunction Abatement Plan	PM	Particulate Matter
MDEQ	Michigan Department of Environmental Quality	PM-10	Particulate Matter less than 10 microns diameter
MIOSHA	Michigan Occupational Safety & Health Administration	pph	Pound per hour
MSDS	Material Safety Data Sheet	ppm	Parts per million
NESHA	National Emission Standard for Hazardous Air Pollutants	ppmv	Parts per million by volume
P		ppmw	Parts per million by weight
NSPS	New Source Performance Standards	psia	Pounds per square inch absolute
NSR	New Source Review	psig	Pounds per square inch gauge
PS	Performance Specification	scf	Standard cubic feet
PSD	Prevention of Significant Deterioration	sec	Seconds
PTE	Permanent Total Enclosure	SO <sub>2</sub>	Sulfur Dioxide
PTI	Permit to Install	THC	Total Hydrocarbons
RACT	Reasonable Available Control Technology	tpy	Tons per year
SC	Special Condition Number	µg	Microgram
SCR	Selective Catalytic Reduction	VOC	Volatile Organic Compounds
SRN	State Registration Number	yr	Year
TAC	Toxic Air Contaminant		
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 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. **[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 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 Identification**

<b>Emission Unit ID</b>	<b>Emission Unit Description</b>	<b>Stack Identification</b>
EU-Furnace1	1000 lb crucible aluminum furnace, gas-fired	SV-Furnace1
EU-Furnace2	1000 lb crucible aluminum furnace, gas-fired	SV-Furnace2
EU-Furnace3	1000 lb crucible aluminum furnace, gas-fired	SV-Furnace3
EU-Furnace4	1000 lb crucible aluminum furnace, gas-fired	SV-Furnace4
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 36.1290.		

**Flexible Group Identification**

<b>Flexible Group ID</b>	<b>Emission Units Included in Flexible Group</b>	<b>Stack Identification</b>
FG-Furnaces	EU-Furnace1, EU-Furnace2, EU-Furnace3, EU-Furnace4	N/A
FGFACILITY	All process equipment at the facility including equipment covered by other permits, grand-fathered equipment and exempt equipment.	

**The following conditions apply to: FG-Furnaces**

**Emission Limits**

	<b>Pollutant</b>	<b>Equipment</b>	<b>Limit</b>	<b>Time Period</b>	<b>Testing/ Monitoring Method</b>	<b>Applicable Requirement</b>
1.1	Particulate	FG-Furnaces	0.10 lb / 1000 lbs exhaust gases on a dry basis	Test Protocol	GC 13, SC 1.2	<b>R 336.1331</b>

**Material Usage Limits**

- 1.2 The permittee shall melt only clean charge, customer returns, or internal scrap, as defined by 40 CFR Part 63 Subpart RRR, and shall not operate sweat furnaces, thermal chip dryers, or scrap dryers/delacquering kilns/decoating kilns. This condition is necessary to avoid requirements of 40 CFR Part 63 Subpart RRR, National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production. **[R 336.1224, R 336.1225, R 336.1331]**
- 1.3 The permittee shall not use more than 30 lbs of flux per day in FG-Furnaces. **[R336.1224, R336.1225]**

**Recordkeeping/Reporting/Notification**

- 1.4 The permittee shall keep records of the monthly tonnage of aluminum melted in tons per month, the hours of operation of FG-Furnaces on a monthly basis, and the daily usage rates of flux in pounds per calendar day. Such records shall be kept on file for a period of at least five years and made available to the Department upon request. **[R 336.1224, R 336.1225, R 336.1331]**

**Stack/Vent Restrictions**

	<b>Stack &amp; Vent ID</b>	<b>Maximum Diameter (inches)</b>	<b>Minimum Height Above Ground Level (feet)</b>	<b>Applicable Requirement</b>
1.5a	SV-Furnace1	24	15	R 336.1225
1.5b	SV-Furnace2	24	15	R 336.1225
1.5c	SV-Furnace3	24	15	R 336.1225
1.5d	SV-Furnace4	24	15	R 336.1225
The exhaust gases shall be discharged unobstructed vertically to the ambient air.				

**The following conditions apply to: FGFACILITY**

**Emission Limits**

	<b>Pollutant</b>	<b>Equipment</b>	<b>Limit</b>	<b>Time Period</b>	<b>Testing/ Monitoring Method</b>	<b>Applicable Requirement</b>
2.1a	Each Individual HAP	FGFACILITY	Less than 9.0 tpy	12-month rolling time period	SC 2.2	<b>R 336.1205 (3)</b>
2.1b	Aggregate HAPs	FGFACILITY	Less than 22.5 tpy	12-month rolling time period	SC 2.2	<b>R 336.1205 (3)</b>

**Testing**

2.2 The permittee shall determine the HAP content of any material, as received and as applied, using manufacturer's formulation data. Upon request of the AQD District Supervisor, the permittee shall verify the manufacturer's HAP formulation data using EPA Test Method 311. **(R 336.1220, R 336.1225, R 336.1702(a), R 336.2001, R 336.2003, R 336.2004)**

**Recordkeeping / Reporting / Notification**

2.3 The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the 15<sup>th</sup> day of calendar month, for the previous month unless otherwise specified in any recordkeeping, reporting or notification special condition. **(R 336.1205(3))**

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

- Gallons or pounds of each HAP containing material used.
- Where applicable, gallons or pounds of each HAP containing material reclaimed.
- HAP content, in pounds per gallons or pounds per pound, of each HAP containing material used.
- Individual an aggregate HAP emission calculations determining the monthly emission rate of each in tons per calendar month.
- Individual an 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 permittee shall keep all records on file for a period of at least five years and make them available to the Department upon request. **(R 336.1205(3))**