MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION

October 1, 2008

PERMIT TO INSTALL

No. 234-08

ISSUED TO

Tri-State Aluminum

LOCATED AT

1060 E. Keating Avenue Muskegon, Michigan 49442

IN THE COUNTY OF

Muskegon

STATE REGISTRATION NUMBER

N5087

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: 9/17/2008				
DATE PERMIT TO INSTALL APPROVED: 10/1/2008	SIGNATURE:			
DATE PERMIT VOIDED:	SIGNATURE:			
DATE PERMIT REVOKED:	SIGNATURE:			

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Common Abbreviations / Acronyms

			Dellutent/Massurement Abbreviations		
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	РМ	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				
<u> </u>	Valuma Law Draggura (LIVI D) applicators, the	L			

^{*} 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).

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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.

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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)

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SPECIAL CONDITIONS

EMISSION UNIT SUMMARY TABLE

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date / Modification Date	Flexible Group ID		
	A natural gas-fired aluminum melting furnace with a bath capacity of 1,000 lbs.	October 1, 2008	NA		
Changes to the agricument described in this table are subject to the requirements of D 200 4004, except as allowed					

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: EUFURNACE1000

I. <u>EMISSION LIMITS</u>

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.10 lb/1000 lbs of gas on a dry basis		EUFURNACE1000	GC13	R 336.1331

II. MATERIAL LIMITS

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1.Fluxing Materials	12 lbs	24 hour	EUFURNACE1000	GC13	R 336.1225

III. PROCESS/OPERATIONAL RESTRICTIONS

- 1. The permittee shall melt only clean charge, customer returns, or internal scrap, as defined by 40 CFR Part 63 Subpart RRR. This condition is necessary to avoid requirements of 40 CFR Part 63 Subpart RRR, National Emission Standards for Secondary Aluminum Production. (R336.1224 and R336.1225, 40 CFR Part 63 Subpart RRR)
- 2. The permittee shall not install or operate any sweat furnace, thermal chip dryer, or scrap dryer / delacquering kiln / decoating kiln at any location in the facility. This condition is necessary to avoid requirements of 40 CFR Part 63 Subpart RRR, National Emission Standards for Secondary Aluminum Production. (40 CFR Part 63 Subpart RRR)

IV. MONITORING/RECORDKEEPING:

Records shall be maintained on file for a period of five years. (R 336.1201(3))

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1. The permittee shall keep records of the monthly tonnage of aluminum melted in tons per month and the daily usage rates of fluxes in pounds per day. Such 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)