MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION

August 5, 2008

PERMIT TO INSTALL

No. 1083-89A

ISSUED TO						
Bay Cast Incorporated						
LOCATED AT						
400 Webster Street						
Bay City, Michigan 48708						
IN THE COUNTY OF						
Bay						
,						
STATE DECISTRATION NUMBER						
STATE REGISTRATION NUMBER						

A0233

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: **5/27/2008**

DATE PERMIT TO INSTALL APPROVED: SIGNATURE: **8/5/2008** SIGNATURE: DATE PERMIT VOIDED: SIGNATURE: DATE PERMIT REVOKED: SIGNATURE:

PERMIT TO INSTALL

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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	со	Carbon Monoxide		
CEM	Continuous Emission Monitoring	dscf	cf 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_2S	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	ng	Nanogram		
MDEQ	Michigan Department of Environmental Quality	NOx	Oxides of Nitrogen		
MSDS	Material Safety Data Sheet	PM	Particulate Matter		
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM-10	Particulate Matter less than 10 microns diameter		
NSPS	New Source Performance Standards	pph	Pounds per hour		
NSR	New Source Review	ppm	Parts per million		
PS	Performance Specification	ppmv	Parts per million by volume		
PSD	Prevention of Significant Deterioration	ppmw	 Parts per million by weight 		
PTE	Permanent Total Enclosure	psia	Pounds per square inch absolute		
PTI	Permit to Install	psig	Pounds per square inch gauge		
RACT	Reasonably Available Control Technology	scf	Standard cubic feet		
ROP	Renewable Operating Permit	sec	Seconds		
SC	Special Condition	SO ₂	Sulfur Dioxide		
SCR	Selective Catalytic Reduction	THC	Total Hydrocarbons		
SRN	State Registration Number	tpy	Tons per year		
TAC	Toxic Air Contaminant	μg	Microgram		
TEQ	Toxicity Equivalence Quotient	VOC	Volatile Organic Compound		
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. (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 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 nor does it affect any liability for past violations under the Natural Resources and Environmental Protection Act, 1994 PA 451.
- 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

Emission Unit ID	Emission Unit Description	Stack Identification		
EUINDFURNACES1	3,500 pound melt capacity electric induction furnace	NA		
EUINDFURNACES2	6,500 pound melt capacity electric induction furnace	NA		
EUINDFURNACES3	6,500 pound melt capacity electric induction furnace	NA		
EUINDFURNACEN1	6,500 pound melt capacity electric induction furnace	NA		
EUINDFURNACEN2	6,500 pound melt capacity electric induction furnace	NA		
EUINDFURNACEI1	5 Ton melt capacity electric induction furnace	NA		
EUINDFURNACEI2	5 Ton melt capacity electric induction furnace	NA		
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.				

Flexible Group Identification

Flexible Group ID	Emission Units Included in Flexible Group	Stack Identification
FGINDFURNACES	EUINDFURNACES1, EUINDFURNACES2,	NA
	EUINDFURNACES3, EUINDFURNACEN1,	
	EUINDFURNACEN2, EUINDFURNACEI1,	
	EUINDFURNACEI2	
	All process equipment at the facility including	
FGFACILITY	equipment covered by other permits,	NA
	grandfathered equipment and exempt	
	equipment.	

The following conditions apply to: FGINDFURNACES

Material Usage Limits

1.1 The permittee shall not melt more than 70 tons of very clean scrap in FGINDFURNACES per day. Very clean scrap is defined as steel or pig iron that is free of paint, coatings, oils, grease, lubricants, or foreign materials. (R 336.1224, R 336.1702, R 336.1901)

Recordkeeping/Reporting/Notification

1.2 The permittee shall keep, in a satisfactory manner, monthly metal melt for FGINDFURNACES, as required by SC 1.1. 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 336.1224, R 336.1702, R 336.1901)

The following conditions apply to: FGFACILITY

Process/Operational Limits

- 2.1 The permittee shall implement and maintain an approved plan to address the pollution prevention management practices for metallic scrap as specified in 40 CFR 63.10885. The plan shall include the following:
 - a) By January 2, 2009, a metallic scrap management program. 40 CFR 63.10885(a)
 - b) By January 4, 2010, mercury requirements. 40 CFR 63.10885(b)

The owner or operator shall revise the plan within 30 days after a change occurs. **(40 CFR Part 63 Subpart ZZZZ)**

Recordkeeping / Reporting / Notification

- 2.2 The permittee shall keep compliance records to comply with the National Emission Standards for Hazardous Air Pollutants as specified in 40 CFR Part 63 Subpart ZZZZZ. The permittee shall keep the records on file at the facility for a period of at least five years and make them available to the Department upon request. **(40 CFR Part 63, Subpart ZZZZZ)**
- 2.3 The permittee shall submit applicable notifications specified in 40 CFR 63.9, an initial notification and a notification of compliance status as specified in 40 CFR 63.10890. (40 CFR 63, Subpart ZZZZZ)

Other Requirements

2.4 The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart ZZZZZ for Iron and Steel Foundries Area Sources by the initial compliance date. **(40 CFR Part 63, Subpart A and Subpart ZZZZ**)