FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

NORTHEAST DISTRICT
8800 BAYMEADOWS WAY WEST, SUITE 100
JACKSONVILLE, FLORIDA 32256

RICK SCOTT
GOVERNOR

HERSCHEL T. VINYARD JR.
SECRETARY

Sent by Electronic Mail – Received Receipt Requested

PERMITTEE:

Maddox Foundry & Machine Works, Inc.	Air Permit No.:	0010007-006-AC
13370 SW 170th Street	Issuance Date:	April 19, 2013
Archer, FL 32618	Expiration Date:	October 19, 2014

Authorized Representative:
Mr. Chase A. Hope, VP/COO

Air Construction Permit

This is the final air construction permit which authorizes the installation of two electric induction furnaces in addition to an existing, but not permitted electric induction furnace, and the inclusion non-scrap metal alloys as a raw material for the existing electric arc furnace into the permit. **This permit supplements all previously issued air permits for this facility.**

The existing facility, Maddox Foundry & Machine Works, Inc., is a metal foundry. The standard industrial classification (SIC) codes for the facility's activity are 3321(Gray and Ductile Iron Foundries) and 3325 (Steel Foundries, not elsewhere classified). The facility is located in Alachua County at 13370 SW 170th Street, Archer, Florida. The UTM Coordinates: Zone 17, 434.0 km East and 3283.4 km North. Latitude: 29° 32' 30" North and Longitude: 82° 31' 30" West.

This final permit is organized by the following sections.

Section 1. General Information
Section 2. Administrative Requirements
Section 3. Facility-Wide Conditions
Section 4. Emissions Unit Specific Conditions
Section 5. Appendices

Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of Section 4 of this permit.

Upon issuance of this final permit, any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

Executed in Jacksonville, Florida

Richard S. Rachal III, P.G. April 19, 2013
Acting Program Administrator
Waste and Air Resources Program

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Final Air Permit package (including the Final Determination and Final Permit) was sent by electronic mail (or a link to these documents made available electronically on a publicly accessible server) with received receipt requested before the close of business on April 19, 2013, to the persons listed below.

Mr. Chase A. Hope: chaseh@maddoxfoundry.com
Ms. Veronica Sgro, P.E., Koogler and Associates, Inc.: vsgro@kooglerassociates.com

Clerk Stamp
FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), F.S., with the designated agency clerk, receipt of which is hereby acknowledged.

Rita Felton-Smith April 19, 2013

FACILITY DESCRIPTION

Existing Facility

Maddox Foundry & Machine Works, Inc. is a metal foundry that manufactures cast products such as hammers for hammermills, rock crushers, slurry pumps, ductile iron slurry pipe fittings, trommel screens, cast liners for rod or ball mills, and custom castings. The foundry manufactures two grades of steel, two grades of gray iron, two grades of ductile iron and high chrome iron castings. The foundry also manufactures aluminum and bronze castings.

Operations at this facility include melting scrap metal in an Electric Arc Furnace (EU 001), pouring the molten metal into molds, which are allowed to cool in the shape of the mold and then removed to ship or make a fabricated part or product.

Handcrafted wood or Styrofoam patterns are used to create a corresponding cavity in the casting material, i.e. form the molten metal into a given shape. Cores are shapes, which are made of sand, that are inserted into the mold to provide holes, voids, or tunnels in the finished casting.

A casting flask is a metal frame or a box without a bottom or lid. The flask is split into two halves the top, called a cope and the bottom, called a drag. Each half of the flask contains molding sand with either the top or the bottom half of the wood or Styrofoam pattern and the inserted cores. The two halves are stacked together thus forming the whole mold.

The molding sand, used in the casting flask, is made from a mixture of sand and a small amount of water-based, adhesive. The type of molding sand used, either green sand or acid sand, depends upon the desired casting product. Green sand, an aggregate of sand, bentonite clay, pulverized coal and water, is used for the larger castings Acid sand, is a finer grit sand that is used for cosmetic castings. Acid sand is also used to make cores at this foundry.

The molding sand is pumped from a 40 Ton storage silo using air pressure into large, batch mixers where the adhesive is added, and then fed into slingers for distribution onto the patterns held within the casting flask. The PM emissions from the sand silo during loading and unloading are controlled by the same Griffin Environmental Co., Inc., M1-864 baghouse that is used to control the PM emissions from the finished casting grinding booths operation (EU 003).

Approximately 90% of the flange cores made at the foundry are oven cured in a small, electric, oven, which is maintained at 150 – 200 degrees Fahrenheit. The molds made at the foundry are cured in the open-air buildings.

The metal used in the electric arc furnace is all scrap metal. It consists of purchased material or metal produced by the fabrication shop. The purchased metal does not require any degreasing by the foundry. The fabrication shop metal is cleaned with a pressure washer in the facility's containment area if needed prior to being charged in the electric arc furnace.

The electric arc furnace is outfitted with three (3) carbon electrodes, which are raised or lowered through the furnace roof. The electrodes must be retracted in order for the furnace roof to be rotated aside to allow the charge of the scrap metal by an overhead crane. The roof is returned over the furnace and an electric current is generated between the electrodes. This current produces heat through the electrodes

and scrap metal, which in turn melts the scrap metal. During steel heats, oxygen is injected directly into the melt through a half-inch pipe to remove excess carbon.

Once melted, the nonmetallic impurities in the molten metal form a residue known as slag. Slag weighs less than the molten iron so it floats on top, which allows it to be removed by a combination of tipping the furnace backwards and pouring the slag out through a slag door as well as dragging the slag off the top of the molten metal. This foundry uses carbon and alumina silicate to aid in slag formation.

During refining, alloy elements may be added to produce the desired metallurgy. This stage occurs in the final few minutes before the tap hole is opened and the molten metal is poured out of the furnace into the holding bucket and ladle.

From the ladle, the molten metal is poured into the mold and allowed to cool. Once cooled, the castings are manually shaken out of their molds to remove the loose sand from the casting followed by blasting with either steel shot or sand. The removed sand is recycled and reused as molding sand.

The particulate matter emissions generated from the sand blasting operation are not controlled. With the facility's self-imposed limitation on hours of operation, the potential particulate matter emissions from this operation are less than 5 tons per year. The particulate matter emissions generated from the steel shot blast machine are captured through a hood and routed to the Griffin Environmental Co., Inc., M1-864 baghouse.

The cooled casting is sent to the finishing process where it is cleaned with the pneumatic grinding equipment. The grinding area consists of 6 grinding booths. Each booth has a capture hood. Particulate matter emissions are captured through the hoods and routed to the Griffin Environmental Co., Inc., M1-864 baghouse.

At the back of the fabrication shop, cranes are used to paint the bottom side of an assembled "fabrication" (assembled castings) prior to delivery. A single employee using a single spray gun does this painting. The painting is done during the evening hours. Estimated potential VOC emissions from this activity are such that they are less than 5 tons per year. Estimated potential HAP emissions are less than 1,000 pounds per year for a single HAP and 2,500 pounds per year for total HAPs.

Emissions from the electric arc furnace are controlled using a fourth hole (direct shell) capture system followed by a Pangborn baghouse. Direct shell evacuation consists of ductwork attached to a separate or fourth hole in the furnace roof, which draws emissions via ductwork to the baghouse. This system works only when the furnace is up right with the roof in place. As such, fugitive emissions generated during the charging, alloying, slag removal, and tapping operations are not controlled by the system. These fugitive emissions are subject to the General Opacity Standard of State Rule 62-296.320, F.A.C.

Aluminum and bronze castings are produced from purchased ingots in a 0.82 MMBtu/hr, diesel-fired, reverberatory furnace. The quantity of fuel fired is dependent upon whether bronze or aluminum is being melted, but is estimated to be approximately 6 gallons per hour and 300 – 600 gallons per year. Aluminum batches are estimated at 100 – 300 pounds per batch, while bronze batches are estimated to be 200- 500 pounds per batch. The facility produces 500 pounds of aluminum castings per year and 6,000 – 10,000 pounds of bronze castings in a given year. Alloys or metals are not added to the molten metal in order to achieve the desired metallurgy. The estimated potential emissions are such that they are less than 5 tons per year for criteria pollutants, less than 1,000 pounds per year for any individual HAP, and less than 2,500 pounds per year for total HAPs.

The existing facility consists of the following emission units.

Facility ID No. 0010007

EU ID No.	EP ID No.	Emission Unit Description
001	---	Whiting #6/MT Electric Arc Furnace controlled by a Pangborn 2-compartment Baghouse
---	01	Molding Sand Adhesives
003	---	Finished Casting Grinding Booths Operation controlled by a Griffin Environmental Co., Inc. 4-compartment Baghouse, Model M1-864. *This baghouse also controls emissions from Emission Points 01, and 03.*
---	01	40 Ton storage Silo controlled by the Griffin Environmental Co., Inc. 4-compartment Baghouse, Model M1-864
---	02	Sand Blasting Operation *(uncontrolled)*
---	03	Steel Blast Machine controlled by the Griffin Environmental Co., Inc. 4-compartment Baghouse, Model M1-864

Proposed Project

The purpose of this construction permit is to:

- Authorize the melting of non-scrap alloys in addition to the previously authorized iron and steel scrap in the EAF
- Authorize the melting of iron, steel, and stainless steel scrap and non-scrap alloys in the induction furnaces
- Authorize the installation of three, electric induction furnaces

This project will add the following emissions unit.

EU ID No.	EP ID No.	Emission Unit Description
004	---	(3) Electric Induction Furnaces • Ajax Tocco Magnethermic electric induction furnace • Brown/Boveri-ISNG 3.5 electric induction furnace • Brown/Boveri-ISNG 1.5 electric induction furnace

Exempt Emissions Units/Activities

The following emissions units/activities are exempt from air permitting:

ID No.	Emissions unit/Activity	Rule
005	Caterpillar, Inc. 98.0 HP (standby), 89.0 HP (prime) Diesel Engine, Model XQ60-6 C4.4 (or equivalent) *This engine for the emergency generator for the electrical components cooling tower is a 4-cylinder, compression ignition, diesel engine with a total displacement of 4.4 liters. The Manufacture year is 2011.* *The engine is subject to 40 CFR 63 Subpart ZZZZ National Emissions Standards For Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines. In accordance with the definitions of this subpart, the engine is anew, stationary RICE.* *The engine is subject to 40 CFR 60 Subpart IIII National Emissions Standards For Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines.*	62-210.300(3)(a)35., F.A.C.
--	Brazing, soldering, or welding equipment: *a portable diesel-fired welder*	62-210.300(3)(a)13., F.A.C.
---	Surface Coating Operations: *painting of the bottom side of assembled "fabrications" (assembled castings) prior to delivery. Single spray gun. Surface coatings do not contain chromium, lead, manganese, nickel, or cadmium. Potential VOC emissions are less than 5 tons per year. Potential HAP emissions are less than 0.5 tons per year for a single HAP and 1.25 tons per year for total HAPs.*	62-210.300(3)(b)(1), F.A.C.
---	Aluminum and Bronze Castings Operations: *aluminum and bronze castings are produced from purchased ingots in two, 0.82 MMBtu/hr diesel-fired reverberatory furnaces. Only one furnace is used at a time. This operation does not produce bronze ingots.*	62-210.300(3)(b)(1), F.A.C.
---	Water Eater: *water eater which uses a propane flame to evaporate water from oil drums. 7.5 electric blower motor and uses approximately 400 gallons of propane annually.*	62-210.300(3)(b)(1), F.A.C.
---	17 HP Portable Gas-Fired Air Compressor	62-210.300(3)(b)(1), F.A.C.
---	Heat Treatment Oven No. 1: *Annealing oven. Diesel fuel is used to initiate hot air flow with electric forced air blower. Annual diesel fuel usage is approximately 3,100 gallons. The oven is not used for melting.*	62-210.300(3)(b)(1), F.A.C.

FACILITY REGULATORY CATEGORIES

- The facility is a not major source of hazardous air pollutants (HAP).
- The facility has no units subject to the acid rain provisions of the Clean Air Act.
- The facility is not a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility is a Synthetic Non-Title V source of air pollution
- The facility is not a major stationary source in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

National Emissions Standards for Hazardous Air Pollutants (NESHAP) of 40 CFR 63:

The existing facility is regulated under Subpart ZZZZZ—National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources, and the 40 CFR 63 Subpart A General Provisions which are adopted by reference in Rule 62-204.800(8), F.A.C. Pursuant to 40 CFR 63.10880(b)(1), the source is classified as existing because construction or reconstruction of the affected source commenced before September 17, 2007. Pursuant to 40 CFR 63.10880(f), the affected source was initially subject to the subpart requirements for a small foundry due to a facility metal melt production for calendar year 2008 of less than 20,000 tons.

The facility is subject to 40 CFR 63 Subpart XXXXXX—National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories, and the 40 CFR 63 Subpart A General Provisions which are adopted by reference in Rule 62-204.800(8), F.A.C. It is noted that the State has not adopted this Subpart as of the date of issuance of this draft permit.

The electric arc furnace and the three electric induction furnaces are subject to 40 CFR 63, Subpart YYYYYY—National Emission Standards for Hazardous Air Pollutants for Area Sources: Ferroalloys Production Facilities, and the 40 CFR 63 Subpart A General Provisions which are adopted by reference in Rule 62-204.800(8), F.A.C. The facility is primarily engaged in industrial machinery and equipment finishing operations. It is noted that the State has not adopted this Subpart as of the date of issuance of this draft permit.

The Caterpillar, Inc. diesel-fired engine is subject to the requirements of 40 CFR Part 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

New Source Performance Standards (NSPS) of 40 CFR 60:

The Caterpillar, Inc. diesel-fired engine is subject to the requirements of 40 CFR Part 60, Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.

RELEVANT DOCUMENTS

The documents listed below are the basis of the permit. They are specifically related to this permitting action. These documents are on file with the Department.

Application for Air Permit- Non-Title V Source received October 1, 2012
Additional Information received December 4, 2012
Substantially modified application/additional information received January 24, 2013
Comments from applicant received March 11, 2013

SECTION 3. FACILITY-WIDE CONDITIONS

1. Permitting Authority: The permitting authority for this project is the Northeast District Air Program, Florida Department of Environmental Protection (Department). The Northeast District's mailing address is 8800 Baymeadows Way West, Suite 100, Jacksonville, Florida 32256. All documents related to applications for permits to operate an emissions unit shall be submitted to the Northeast District.

2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the North East District Office. The mailing address and phone number of the District Office is: 8800 Baymeadows Way West, Suite 100, Jacksonville, Florida 32256. The Permitting Authority's telephone number is 904/256-1700.

3. Appendices: The following Appendices are attached as part of this permit:

   a. Appendix A. Citation Formats and Glossary of Common Terms;
   b. Appendix B. General Conditions;
   c. Appendix C. Common Conditions; and
   d. Appendix D. Common Testing Requirements.

4. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297, F.A.C. Issuance of this permit does not relieve the owner or operator from compliance with any applicable federal, state, or local permitting or regulations.

   [Rule 62-210.300, F.A.C.]

5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time.

   [Rule 62-4.080, F.A.C.]

6. Modifications: The owner or operator shall notify the Compliance Authority upon commencement of construction. No new emissions unit shall be constructed and no existing emissions unit shall be modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification.

   [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]

7. Existing Permits and Regulations: The conditions of this permit supplements all other previously issued air permits for this facility. These conditions are in addition to all other applicable permit conditions and regulatory requirements. The owner or operator shall continue to comply with the conditions of those permits, which include restrictions and standards regarding capacities, production, operation, fuels, emissions, monitoring, recordkeeping, reporting, operation of air pollution control devices, and the like. The owner or operator shall also comply with the applicable Rules of 62-4, 62-210, 62-212, 62-296, and 62-297, F.A.C.

   [Rule 62-4.070, F.A.C.]

8. Source Obligation:

   (a) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

   (b) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by exceeding its projected actual emissions, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

   [Rule 62-212.400(12), F.A.C.]

9. Title V Operation Permit Exemption for Area Sources. Pursuant to §§§ 63.6585(d), 63.11514(i), and 63.11524(d) (40 CFR 63 Subparts ZZZZ, XXXXXX, and YYYYYY, respectively) and Rule 62-210.200(193)(f), F.A.C, this facility is exempt from the obligation to obtain a Title V Operation permit due to 1) its classification as an area source of HAPs; and 2) not obtaining a Title V Operation permit for a reason other than the status of being an area source.

   [40 CFR 63.6585(d), 40 CFR 63.11514(i), 40 CFR 63.11524(d), Rule 62-210.200(193)(f), F.A.C.]

10. Applicable Federal Regulations – 40 CFR 63 Subpart ZZZZ and 40 CFR 60 Subpart IIII. The issuance of this permit does not authorize any infringement of applicable federal regulations for any emissions unit or pollutant-emitting activity that is not required to obtain air construction permit or non-Title V air operation permit by satisfying the applicable permitting exemption criteria of either Rule 62- 210.300(3)(a) or (b), F.A.C.

    Caterpillar, Inc. 98.0 HP (standby), 89.0 HP (prime) Diesel Engine, Model XQ60-6 C4.4 (or equivalent), is subject to the requirements of 40 CFR 63 Subpart ZZZZ- National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. The engine is also subject to the requirements of 40 CFR 60 Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.

    As such, pursuant to Rule 62-210.300(3)(a)35.f. and h., F.A.C., the owner or operator shall comply with all limitations and requirements of 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ that apply to the engine.

    If emissions testing is required pursuant to 40 CFR 60 Subpart ZZZZ, all notifications of upcoming tests and reports shall be submitted to the Department in accordance with the provisions of 40 CFR 60 Subpart ZZZZ.

    [Rule 62-4.160(3), F.A.C., 40 CFR 63.6675(def); 40 CFR 63.6585(a) & (c); 40 CFR 63.6590(a)(2)(iii), 40 CFR 60.4219(def); 40 CFR 60.4200(2)(i)]

11. Application for Operation Permit. This permit authorizes construction of the permitted emissions units and initial operation to determine compliance with Department rules. An air operation permit is required for regular operation of the permitted emissions units. The permittee shall apply for an air operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after commencing operation of the first induction furnace (EU 004). To properly apply for an air operation permit, the applicant shall submit the appropriate application form, processing, compliance test results, and such additional information as the Department may by law require.

    [Rules 62-4.050, 62-4.090, F.A.C.]

12. Annual Operating Report. The owner or operator shall submit an annual report, as specified in Appendix C – Common Conditions of this permit, which summarizes the actual operating rates and emissions from this facility. The Annual Operating Report for Air Pollutant Emitting Facility (DEP form number 62-210.900(5)) shall be completed each year and shall be submitted to the Compliance Authority by April 1 of the following year.

    [Rule 62-210.370(3), F.A.C.]

This section of the permit addresses the following emissions unit.

Emissions Unit	Emissions Unit Description
001	Whiting #6/MT, 7'3" Alternate Current Electric Arc Furnace. Serial Number 275. Maximum capacity is 10,000 pounds. The EAF operates off the main power supply of 12,500 volts, 1,500 kW/Hr or 5.118 MMBtu/Hr. Originally constructed in 1963 or prior. Air Pollution Control Equipment: One (1) Pangborn 2 compartment Baghouse. Serial Number 72-175-1-03-01 Gas Volume.....…18,000 ACFM Gas Temperature.....120 °F Removal efficiency …….estimated to be 98%

Emission Point	Emission Point Description
01	Molding Sand Operation. No Control Device

{Permitting notes: This emissions unit is regulated under: Rule 296.320(4)(b)1., F.A.C.; 40 CFR 63 Subpart ZZZZZ- National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Source**s**, adopted and incorporated by reference in Rule 62-204.800, F.A.C. *In accordance with the definitions of this subpart, this emissions unit is classified as an existing small foundry.*

PERFORMANCE RESTRICTIONS

A.1. Electric Arc Furnace - Permitted Capacity. The maximum charging rate shall not exceed 7,500 pounds per heat* and 1687.5 tons per year of raw materials (scrap metal consisting of iron and steel, and non-scrap alloys). All materials shall be weighed prior to being charged in the furnace.

* Basis 7,500 lb/heat; 9 heats/week, 50 weeks/year.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; Operation Permit Application information dated 6/18/03, Application No. 0010007-006-AC]

A.2. Operations and Processing Rate Records. In order to demonstrate compliance with the requirements in Specific Condition No. A.1. of this permit, the permittee shall maintain a monthly log at the facility of the following:

(a) The quantity (weight) of scrap metal charged to Electric Arc Furnace

(b) The quantity (weight) of non-scrap alloys charge to the Electric Arc Furnace

(c) The rolling, 12-month summation of the weight of scrap metal and non-scrap alloys charged

Condition A.2. Continued:

(d) Hours of Operation of Electric Arc Furnace

This information shall be retained for at least 3 years from the date of measurement or recording, and be readily assessable for onsite review by the Department.

[Rule 62-4.070(3), F.A.C.]

This section of the permit addresses the following emissions unit.

Emissions Unit	Emissions Unit Description
004	(3) Electric Induction Furnaces • Ajax Tocco Magnethermic electric induction furnace (1.5 ton, 500 kW coreless) • Brown/Boveri-ISNG 3.5 electric induction furnace (3.5 ton, 720 kW coreless) • Brown/Boveri-ISNG 1.5 electric induction furnace (1.5 ton, 442 kW coreless)

B.1. Construction. This permit authorizes the installation of three electric induction furnaces and associated equipment. The construction shall be in accordance with the application and associated documents provided to the Permitting Authority for the issuance of this permit. Any changes to the project that are contrary to these documents and permit shall be reported in writing to the Permitting Authority by the P.E. of Record.

[Rules 62-4.070(3) and 62-4.160(2), F.A.C.]

PERFORMANCE RESTRICTIONS

B.2. Electric Induction Furnaces - Permitted Capacity. The maximum charging rate of raw materials (scrap metal consisting of iron, steel, and stainless steel, and non-scrap alloys) shall not exceed the following:

	Maximum charge Rate (lbs/heat)	**Maximum Heats per Day (24-hours)**	**Maximum Operating Days per week**	**Maximum Annual Production (TPY)[1]**
Brown/Boveri-ISNG 3.5	7000	7	3	3354[2]
Brown/Boveri-ISNG 1.5	3000	10	3	1638[3]
Ajax	3000	10	3	1638[3]

All materials shall be weighed prior to being charged in the furnace.

[1] Based on rolling, 12-month summation of material charged/melted in furnace.
[2] Maximum daily (24-hr) charge of 43,000 lbs (Heats 1-6: 6,000 lbs/heat; Heat 7: 7,000 lbs/heat). Daily charge x Maximum Operating Days per week x 52 weeks per year x 1 ton per 2,000 pounds.
[3] Maximum daily (24-hr) charge of 21,000 lbs (Heats 1-9: 2,000 lbs/heat; Heat 10: 3,000 lbs/heat). Daily charge x Maximum Operating Days per week x 52 weeks per year x 1 ton per 2,000 pounds.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; Application No. 0010007-006-AC; Application amendment dated January 24, 2013]

B.3. Hours of Operation- Electric Induction Furnace: The hours of operation for the Electric Induction Furnaces are limited to no more than 24 H/D; 3 D/W, 52 W/Y and 3,744 H/Y. The hours that these furnaces are in operation shall be recorded and maintained by the facility.

[Rules 62-4.160(2) & (14)(b), 62-210.200(PTE), F.A.C., Definitions- Potential to Emit (PTE); Application No. 0010007-006-AC; Application amendment dated January 24, 2013]

B.4. General Visible Emissions (VE) Limitation. Except for emissions unit that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharge into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on Ringelmann Chart (20% opacity).

Upon Department request and pursuant to the special compliance test requirements stated in Condition B.5., compliance shall be determined by EPA Method 9 testing incorporated and adopted by reference in Rule 62-297, F.A.C,

[Rule 62-296.320(4)(b)1., F.A.C.]

B.5. Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

[Rule 62-297.310(7), F.A.C.]

B.6. Operations and Processing Rate Records. In order to demonstrate compliance with the requirements in Specific Condition No. B.2. of this permit, the permittee shall maintain a monthly log at the facility of the following:

(a) The quantity (weight) of scrap metal charged to each Electric Induction Furnace

(b) The quantity (weight) of non-scrap alloys charge to each Electric Induction Furnace

(c) The rolling, 12-month summation of the weight of the scrap metal and non-scrap alloys charged

(d) Hours of Operation of each Electric Induction Furnace

This information shall be retained for at least 3 years from the date of measurement or recording, and be readily assessable for onsite review by the Department.

[Rule 62-4.070(3), F.A.C.]