

Facility Name: **DMI Columbus, LLC**
City: Columbus
County: Muscogee
AIRS #: 04-13-215-00001

Application #: TV-55550
Date Application Received: October 18, 2017
Permit No: 3321-215-0001-V-05-0

Program	Review Engineers	Review Managers
SSPP	Ginger Payment	Manny Patel
ISMU	Msengi Mgonella	Farhana Yasmin
SSCP	Joanna Pecko	Dan McCain
Toxics	N/A	N/A
Permitting Program Manager		Eric Cornwell

Introduction

This narrative is being provided to assist the reader in understanding the content of referenced operating permit. Complex issues and unusual items are explained here in simpler terms and/or greater detail than is sometimes possible in the actual permit. The permit is being issued pursuant to: (1) Georgia Air Quality Act, O.C.G.A § 12-9-1, et seq. and (2) Georgia Rules for Air Quality Control, Chapter 391-3-1, and (3) Title V of the Clean Air Act. Section 391-3-1-.03(10) of the Georgia Rules for Air Quality Control incorporates requirements of Part 70 of Title 40 of the Code of Federal Regulations promulgated pursuant to the Federal Clean Air Act. The narrative is intended as an adjunct for the reviewer and to provide information only. It has no legal standing. Any revisions made to the permit in response to comments received during the public participation and EPA review process will be described in an addendum to this narrative.

I. Facility Description**A. Facility Identification**

1. Facility Name: DMI Columbus, LLC

2. Parent/Holding Company Name

Chassix

3. Previous and/or Other Name(s)

Internet Columbus Foundry

4. Facility Location

1600 Northside Industrial Boulevard
Columbus, Georgia 31904 (Muscogee County)

5. Attainment, Non-attainment Area Location, or Contributing Area

The facility is located in Muscogee County, which is considered an attainment area for all criteria pollutants.

B. Site Determination

There are no other facilities which could possibly be contiguous or adjacent and under common control.

C. Existing Permits

Table 1 below lists all current Title V permits, all amendments, 502(b)(10) changes, and off-permit changes, issued to the facility, based on a comparative review of form A.6, Current Permits, of the Title V application and the "Permit" file(s) on the facility found in the Air Branch office.

Table 1: List of Current Permits, Amendments, and Off-Permit Changes

Permit Number and/or Off-Permit Change	Date of Issuance/ Effectiveness	Purpose of Issuance
Permit No. 3321-215-0001-V-04-0	May 2, 2013	Title V Renewal
Amendment No. 3321-215-0001-V-04-1	May 20, 2014	Replace TEA with DMIPA as cold box core making catalyst.
Amendment No. 3321-215-0001-V-04-2	February 24, 2016	Rerouting sources to different baghouse
Off Permit Change	September 19, 2016	Removal of the metal machining operation
Amendment No. 3321-215-0001-V-04-3	November 22, 2017	Construction and operation of Cold Box Machine #7 and removal of Core Machines 3131 and 3141
Amendment No. 3321-215-0001-V-04-4	December 13, 2017	Replacement of baghouses and construction of a new stack

D. Process Description

1. SIC Codes(s)

3321 – Gray and Ductile Iron Foundries

The SIC Code(s) identified above were assigned by EPD's Air Protection Branch for purposes pursuant to the Georgia Air Quality Act and related administrative purposes only and are not intended to be used for any other purpose. Assignment of SIC Codes by EPD's Air Protection Branch for these purposes does not prohibit the facility from using these or different SIC Codes for other regulatory and non-regulatory purposes.

Should the reference(s) to SIC Code(s) in any narratives or narrative addendum previously issued for the Title V permit for this facility conflict with the revised language herein, the language herein shall control; provided, however, language in previously issued narratives that does not expressly reference SIC Code(s) shall not be affected.

2. Description of Product(s)

DMI Columbus LLC produces ductile iron castings from materials such as scrap metal, pig iron, and foundry scrap.

3. Overall Facility Process Description

Raw Materials Handling: Incoming scrap metal is unloaded, moved, and placed using magnetic pick-up discs attached to either overhead cranes or a tracked scrap handler. Other materials, such as alloys and additives to the melting process are moved using forklifts. Other raw material transfer is accomplished via shakers, conveyors, and transfers.

Metal Melting: The ductile iron process begins by melting specified steel scrap, pig iron, and ductile iron "returns." Returns are the sprues, runners, and other parts of the cast mold not processed as final product. These components are preheated before introduction into the melting furnace. Once melted, other components such as graphite (carbon) and silicon are added in small quantities to form a consistent base iron. Base iron is held in large holding furnaces. From the holding furnaces, base iron is converted to ductile iron through the introduction of magnesium. The magnesium treatment causes the microscopic carbon flake structure to be converted to a spherical or nodular structure. The result of this nodular carbon shape is iron with properties very similar to tempered steel. This is Ductile Iron.

Core Production: Cores are specially shaped solid formations of sand, made in specially designed core machines in which sand is blown into core molds and instantaneously hardened using a catalytic process. These cores are then placed in the production molds to make designed voids in the parts. For more on the function of cores, see the Mold Manufacturing Process.

Mold Manufacturing/Pouring: Ductile iron is quickly poured into a mold made in special machinery from sand and clay. When needed, sand cores are placed inside the mold to form void spaces around which the metal is cast. Molds are positioned front to back on long conveyor lines to cool as they are conveyed to the cooling and shakeout operation.

Cooling/Shakeout: The iron-filled mold is cooled along a cooling conveyor line until the individual molds get to shakeout. During shakeout, the solidified iron is separated from the mold sand, which breaks up and is returned through a series of conveyors, classifiers, and coolers and remixed for reuse. In Shakeout, the designed parts are separated from the sprues and runners, which are collected and returned to the scrap yard for remelting.

Grinding/Finishing Parts coming from the shakeout process are separated from the sprues and runners and collected for further processing, which includes shot blasting, grinding and/or pressing before being packaged for shipment to the customer.

4. Overall Process Flow Diagram

The facility provided a process flow diagram in their Title V permit application.

E. Regulatory Status

1. PSD/NSR

DMI Columbus, LLC is located in an attainment area. It is classified as one of the 28 named source categories in the PSD regulations because it is a secondary metal production facility. The foundry is a major source because it has the potential to emit more than 100 tons per year of at least one pollutant regulated by the PSD regulations.

The facility proposed a modification that involved adding two casting lines and some other equipment in 1999. The facility avoided a PSD review by accepting the limits for PM, CO, and VOC set by Air Quality Permit No. 3321-215-0001-V-01-0. Condition 3.2.1 in the Air Quality Permit No. 3321-215-0001-V-01-0 limits the annual output from the pressure pouring furnaces (ID Nos. 1480 and 1481) to less than 187,500 tons per year. The limits ensure the net emissions for all criteria pollutants are below the significant increase levels so that the PSD review could be avoided. Removal or modification of any of these conditions may result in a retroactive PSD review for this entire modification.

Application No. 202654 requested to remove existing Baghouse 7024 and replace existing Baghouses 7029 and 7030 with two new baghouses. The proposed baghouses were more efficient. The emissions from Baghouse 7024 were re-routed to the two new Baghouses 7029 and 7030, which vent to one new stack (Stack ID NDC5). The potential emissions from the existing baghouses (7024, 7029 and 7030) were calculated using their airflow capacity of 11,000 CFM, 30,694 CFM and 19,993 CFM, respectively. These combined airflow rates were used with an outlet grain loading rate of 0.0075 gr/DCSF which is the PM emission limit for similar emission sources at the facility. The potential emissions from the existing baghouses were calculated to be 17.37 tpy. The potential emissions from the proposed baghouses (7029 and 7030) were calculated using the new baghouses airflow capacity of 62,500 CFM for each. The

combined airflow rate was used with an outlet grain loading rate of 0.004 gr/DCSF. The potential emissions from the proposed baghouses will be 18.77 tpy. The difference from the existing baghouses (17.37 tpy) to the proposed baghouses (18.77 tpy) shows an increase in 1.4 tpy of PM emissions. The emission increase was below the significant emission rate of 25 tpy for PM emissions; therefore, this modification was not subject to PSD review.

2. Title V Major Source Status by Pollutant

Table 2: Title V Major Source Status

Pollutant	Is the Pollutant Emitted?	If emitted, what is the facility's Title V status for the pollutant?		
		Major Source Status	Major Source Requesting SM Status	Non-Major Source Status
PM	Yes	✓		
PM ₁₀	Yes	✓		
PM _{2.5}	Yes	✓		
SO ₂	Yes			✓
VOC	Yes	✓		
NO _x	Yes			✓
CO	Yes	✓		
TRS	Yes			✓
H ₂ S	Yes			✓
Individual HAP	Yes	✓		
Total HAPs	Yes	✓		

3. MACT Standards

The facility is subject to MACT EEEEE, "National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries".

4. Program Applicability (AIRS Program Codes)

Program Code	Applicable (y/n)
Program Code 6 - PSD	No
Program Code 8 – Part 61 NESHAP	No
Program Code 9 - NSPS	No
Program Code M – Part 63 NESHAP	Yes
Program Code V – Title V	Yes

Regulatory Analysis

II. Facility Wide Requirements

A. Emission and Operating Caps:

None applicable.

B. Applicable Rules and Regulations

The facility is subject to 40 CFR Part 63, Subpart EEEEE “National Emission Standards for Hazardous Air Pollutants for Iron and Steel foundries”.

C. Compliance Status

There are no compliance issues noted during this application.

D. Permit Conditions

Condition 2.2.1 subjects the facility to MACT EEEEE.

III. Regulated Equipment Requirements

A. Equipment List for the Process

Emission Units			Specific Limitations/Requirements		Air Pollution Control Devices		
ID No.	Description	Process Group	Applicable Requirements/Standards	Corresponding Permit Conditions	ID No.	Description	Stack ID No.
1153	Scrap Preheater #1	PG01	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(g) 40 CFR 63 Subpart EEEEE	2.2.1, 3.3.1, 3.3.6, 3.3.7, 3.3.10, 3.4.1, 3.4.2, 3.4.3, 4.2.1, 5.2.2, 5.2.5, 5.2.6, 6.2.4, 6.2.6, 6.2.7, 6.2.8, 6.2.9, 6.2.10, 6.2.11, 6.2.14, 6.2.15	7044 7045 7046	Baghouse	7046
1163	Scrap Preheater #2	PG01	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(g) 40 CFR 63 Subpart EEEEE	2.2.1, 3.3.1, 3.3.6, 3.3.7, 3.3.10, 3.4.1, 3.4.2, 3.4.3, 4.2.1, 5.2.2, 5.2.5, 5.2.6, 6.2.4, 6.2.6, 6.2.7, 6.2.8, 6.2.9, 6.2.10, 6.2.11, 6.2.14, 6.2.15	7044 7045 7046	Baghouse	7046
1173	Scrap Preheater #3	PG01	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(g) 40 CFR 63 Subpart EEEEE	2.2.1, 3.3.1, 3.3.6, 3.3.7, 3.3.10, 3.4.1, 3.4.2, 3.4.3, 4.2.1, 5.2.2, 5.2.5, 5.2.6, 6.2.4, 6.2.6, 6.2.7, 6.2.8, 6.2.9, 6.2.10, 6.2.11, 6.2.14, 6.2.15	7044 7045 7046	Baghouse	7046
1023	Scrap Preheater #4	PG01	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(g) 40 CFR 63 Subpart EEEEE	2.2.1, 3.3.1, 3.3.6, 3.3.7, 3.4.1, 3.4.2, 3.4.3, 4.2.1, 5.2.2, 5.2.5, 5.2.6, 6.2.4, 6.2.6, 6.2.7, 6.2.8, 6.2.9, 6.2.10, 6.2.11, 6.2.14, 6.2.15	7044 7045 7046	Baghouse	7046
1033	Scrap Preheater #5	PG01	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(g) 40 CFR 63 Subpart EEEEE	2.2.1, 3.3.1, 3.3.6, 3.3.7, 3.4.1, 3.4.2, 3.4.3, 4.2.1, 5.2.2, 5.2.5, 5.2.6, 6.2.4, 6.2.6, 6.2.7, 6.2.8, 6.2.9, 6.2.10, 6.2.11, 6.2.14, 6.2.15	7044 7045 7046	Baghouse	7046
1110	Melting Furnace #0	PG01	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart EEEEE	2.2.1, 3.3.1, 3.3.10, 3.4.1, 3.4.2, 4.2.1, 5.2.2, 5.2.5, 5.2.6, 6.2.7, 6.2.8, 6.2.9, 6.2.11, 6.2.15	7044 7045 7046	Baghouse	7046
1111	Melting Furnace #1	PG01	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart EEEEE	2.2.1, 3.3.1, 3.3.10, 3.4.1, 3.4.2, 4.2.1, 5.2.2, 5.2.5, 5.2.6, 6.2.7, 6.2.8, 6.2.9, 6.2.11, 6.2.15	7044 7045 7046	Baghouse	7046
1112	Melting Furnace #2	PG01	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart EEEEE	2.2.1, 3.3.1, 3.3.10, 3.4.1, 3.4.2, 4.2.1, 5.2.2, 5.2.5, 5.2.6, 6.2.7, 6.2.8, 6.2.9, 6.2.11, 6.2.15	7044 7045 7046	Baghouse	7046
1113	Melting Furnace #3	PG01	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart EEEEE	2.2.1, 3.3.1, 3.3.10, 3.4.1, 3.4.2, 4.2.1, 5.2.2, 5.2.5, 5.2.6, 6.2.7, 6.2.8, 6.2.9, 6.2.11, 6.2.15	7044 7045 7046	Baghouse	7046
1114	Melting Furnace #4	PG01	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart EEEEE	2.2.1, 3.3.1, 3.3.10, 3.4.1, 3.4.2, 4.2.1, 5.2.2, 5.2.5, 5.2.6, 6.2.7, 6.2.8, 6.2.9, 6.2.11, 6.2.15	7044 7045 7046	Baghouse	7046
1115	Melting Furnace #5	PG01	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart EEEEE	2.2.1, 3.3.1, 3.3.10, 3.4.1, 3.4.2, 4.2.1, 5.2.2, 5.2.5, 5.2.6, 6.2.7, 6.2.8, 6.2.9, 6.2.11, 6.2.15	7044 7045 7046	Baghouse	7046

Emission Units			Specific Limitations/Requirements		Air Pollution Control Devices		
ID No.	Description	Process Group	Applicable Requirements/Standards	Corresponding Permit Conditions	ID No.	Description	Stack ID No.
1116	Melting Furnace #6	PG01	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart EEEEE	2.2.1, 3.3.1, 3.3.10, 3.4.1, 3.4.2, 4.2.1, 5.2.2, 5.2.5, 5.2.6, 6.2.7, 6.2.8, 6.2.9, 6.2.11, 6.2.15	7044 7045 7046	Baghouse	7046
1117	Melting Furnace #7	PG01	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart EEEEE	2.2.1, 3.3.1, 3.3.10, 3.4.1, 3.4.2, 4.2.1, 5.2.2, 5.2.5, 5.2.6, 6.2.7, 6.2.8, 6.2.9, 6.2.11, 6.2.15	7044 7045 7046	Baghouse	7046
1120	Melting Furnace C	PG01	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart EEEEE	2.2.1, 3.3.1, 3.3.10, 3.4.1, 3.4.2, 4.2.1, 5.2.2, 5.2.5, 5.2.6, 6.2.7, 6.2.8, 6.2.9, 6.2.11, 6.2.15	7044 7045 7046	Baghouse	7046
1121	Melting Furnace B	PG01	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart EEEEE	2.2.1, 3.3.1, 3.3.10, 3.4.1, 3.4.2, 4.2.1, 5.2.2, 5.2.5, 5.2.6, 6.2.7, 6.2.8, 6.2.9, 6.2.11, 6.2.15	7044 7045 7046	Baghouse	7046
1122	Melting Furnace A	PG01	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart EEEEE	2.2.1, 3.3.1, 3.3.10, 3.4.1, 3.4.2, 4.2.1, 5.2.2, 5.2.5, 5.2.6, 6.2.7, 6.2.8, 6.2.9, 6.2.11, 6.2.15	7044 7045 7046	Baghouse	NDC1
1221	Holding Furnace #1	PG01	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 6.2.8	7051 7052 7053	Baghouse	NDC4
1222	Holding Furnace #2	PG01	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 6.2.8	7051 7052 7053	Baghouse	NDC4
1223	Holding Furnace #3	PG01	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 6.2.8	7051 7052 7053	Baghouse	NDC4
1224	Holding Furnace #4	PG01	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 6.2.8	7051 7052 7053	Baghouse	NDC4
3112	Cold Box Machine #1	PG02	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart EEEEE	2.2.1, 3.3.4, 3.3.7, 3.3.8, 3.4.1, 3.4.2, 4.2.1, 5.2.4, 5.2.7, 5.2.8, 5.2.9, 5.2.10, 6.2.4, 6.2.6, 6.2.7, 6.2.8, 6.2.10, 6.2.11, 6.2.12, 6.2.14, 6.2.15	3171	Scrubber	3171
3113	Cold Box Machine #2	PG02	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart EEEEE	2.2.1, 3.3.4, 3.3.7, 3.3.8, 3.4.1, 3.4.2, 4.2.1, 5.2.4, 5.2.7, 5.2.8, 5.2.9, 5.2.10, 6.2.4, 6.2.6, 6.2.7, 6.2.7, 6.2.8, 6.2.10, 6.2.11, 6.2.12, 6.2.14, 6.2.15	3171	Scrubber	3171
3124	Cold Box Machine #3	PG02	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart EEEEE	2.2.1, 3.3.4, 3.3.7, 3.3.8, 3.4.1, 3.4.2, 4.2.1, 5.2.4, 5.2.7, 5.2.8, 5.2.9, 5.2.10, 6.2.4, 6.2.6, 6.2.7, 6.2.8, 6.2.10, 6.2.11, 6.2.12, 6.2.14, 6.2.15	3171	Scrubber	3171

Emission Units			Specific Limitations/Requirements		Air Pollution Control Devices		
ID No.	Description	Process Group	Applicable Requirements/Standards	Corresponding Permit Conditions	ID No.	Description	Stack ID No.
3126	Cold Box Machine #4	PG02	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart EEEEE	2.2.1, 3.3.4, 3.3.7, 3.3.8, 3.4.1, 3.4.2, 4.2.1, 5.2.4, 5.2.7, 5.2.8, 5.2.9, 5.2.10, 6.2.4, 6.2.6, 6.2.7, 6.2.8, 6.2.10, 6.2.11, 6.2.12, 6.2.14, 6.2.15	3171	Scrubber	3171
3128	Cold Box Machine #5	PG02	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart EEEEE	2.2.1, 3.3.4, 3.3.7, 3.3.8, 3.3.1, 3.4.1, 3.4.2, 4.2.1, 5.2.1, 5.2.4, 5.2.7, 5.2.8, 5.2.9, 5.2.10, 6.2.4, 6.2.6, 6.2.7, 6.2.8, 6.2.10, 6.2.11, 6.2.12, 6.2.14, 6.2.15	3171	Scrubber	3171
3130	Cold Box Machine #6	PG02	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart EEEEE	2.2.1, 3.3.4, 3.3.7, 3.3.8, 3.4.1, 3.4.2, 4.2.1, 5.2.1, 5.2.4, 5.2.7, 5.2.8, 5.2.9, 5.2.10, 6.2.4, 6.2.6, 6.2.7, 6.2.8, 6.2.10, 6.2.11, 6.2.12, 6.2.14, 6.2.15	3171	Scrubber	3171
3125	Cold Box Machine #7	PG02	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart EEEEE	2.2.1, 3.3.4, 3.3.7, 3.3.8, 3.5.1, 3.4.1, 3.4.2, 4.2.1, 5.2.4, 5.2.7, 5.2.8, 5.2.9, 5.2.10, 6.2.4, 6.2.6, 6.2.7, 6.2.8, 6.2.10, 6.2.11, 6.2.12, 6.2.14, 6.2.15	3171	Scrubber	3171
3132	Laempe Core Machine #2	PG02	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart EEEEE	2.2.1, 3.3.4, 3.3.7, 3.3.8, 3.4.1, 3.4.2, 4.2.1, 5.2.1, 5.2.4, 5.2.7, 5.2.8, 5.2.9, 5.2.10, 6.2.4, 6.2.5, 6.2.6, 6.2.7, 6.2.8, 6.2.10, 6.2.11, 6.2.12, 6.2.13, 6.2.14, 6.2.15	3171	Scrubber	3171
3133	Laempe Core Machine #3	PG02	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart EEEEE	2.2.1, 3.3.4, 3.3.7, 3.3.8, 3.4.1, 3.4.2, 4.2.1, 5.2.4, 5.2.7, 5.2.8, 5.2.9, 5.2.10, 6.2.4, 6.2.5, 6.2.6, 6.2.7, 6.2.8, 6.2.10, 6.2.11, 6.2.12, 6.2.13, 6.2.14, 6.2.15	3171	Scrubber	3171
1491	Pourer A	PG03	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2	N/A	N/A	N/A
2124	Cooling A	PG03	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2	N/A	N/A	7034
2125	Shakeout A	PG03	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 6.2.8	7041	Baghouse	7041
2126	Shakeout A	PG03	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 6.2.8	7041	Baghouse	7041
2127	Shakeout A	PG03	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 6.2.8	7041	Baghouse	7041
2128	Shakeout A	PG03	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 6.2.8	7041	Baghouse	7041
2129	Shakeout A	PG03	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 6.2.8	7041	Baghouse	7041
2130	Shakeout A	PG03	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 6.2.8	7041	Baghouse	7041

Emission Units			Specific Limitations/Requirements		Air Pollution Control Devices		
ID No.	Description	Process Group	Applicable Requirements/Standards	Corresponding Permit Conditions	ID No.	Description	Stack ID No.
1492	Pourer B	PG04	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2	N/A	N/A	N/A
2224	Cooling B	PG04	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2	N/A	N/A	7035
2225	Shakeout B	PG04	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 6.2.8	7041	Baghouse	7041
2226	Shakeout B	PG04	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 6.2.8	7041	Baghouse	7041
2227	Shakeout B	PG04	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 6.2.8	7041	Baghouse	7041
2228	Shakeout B	PG04	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 6.2.8	7041	Baghouse	7041
2229	Shakeout B	PG04	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 6.2.8	7041	Baghouse	7041
2230	Shakeout B	PG04	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 6.2.8	7041	Baghouse	7041
1493	Pourer C	PG05	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2	N/A	N/A	N/A
2324	Cooling C	PG05	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2	N/A	N/A	7036
2325	Shakeout C	PG05	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 6.2.8	7040	Baghouse	7040
2326	Shakeout C	PG05	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 6.2.8	7040	Baghouse	7040
2327	Shakeout C	PG05	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 6.2.8	7040	Baghouse	7040
2328	Shakeout C	PG05	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 6.2.8	7040	Baghouse	7040
2329	Shakeout C	PG05	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 6.2.8	7040	Baghouse	7040
2330	Shakeout C	PG05	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 6.2.8	7040	Baghouse	7040
1494	Pourer D	PG06	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2	N/A	N/A	N/A
2424	Cooling D	PG06	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2	N/A	N/A	7037
2425	Shakeout D	PG06	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 6.2.8	7040	Baghouse	7040
2426	Shakeout D	PG06	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 6.2.8	7040	Baghouse	7040
2427	Shakeout D	PG06	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 6.2.8	7040	Baghouse	7040
2428	Shakeout D	PG06	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 6.2.8	7040	Baghouse	7040
2429	Shakeout D	PG06	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 6.2.8	7040	Baghouse	7040
2430	Shakeout D	PG06	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 6.2.8	7040	Baghouse	7040
1480	Pourer E	PG07	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.2.1, 3.3.1, 3.3.2, 3.3.3, 3.3.9, 3.4.1, 3.4.2, 4.2.1, 5.2.1, 5.2.2, 5.2.3, 5.2.5, 6.2.1, 6.2.2, 6.2.7, 6.2.8, 6.2.11, 6.2.15	7049/ RTO	Baghouse/ Thermal Oxidizer	RTO1
2524	Cooling E	PG07	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.3.1, 3.3.2, 3.3.3, 3.3.9, 3.4.1, 3.4.2, 4.2.1, 5.2.1, 5.2.2, 5.2.3, 5.2.5, 6.2.7, 6.2.8, 6.2.11, 6.2.15	7049/ RTO	Baghouse/ Thermal Oxidizer	RTO1

Emission Units			Specific Limitations/Requirements		Air Pollution Control Devices		
ID No.	Description	Process Group	Applicable Requirements/Standards	Corresponding Permit Conditions	ID No.	Description	Stack ID No.
2526	Shakeout E	PG07	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.3.1, 3.3.2, 3.3.3, 3.3.9, 3.4.1, 3.4.2, 4.2.1, 5.2.1, 5.2.2, 5.2.3, 5.2.5, 6.2.7, 6.2.8, 6.2.11, 6.2.15	7049/ RTO	Baghouse/ Thermal Oxidizer	RTO1
2527	Shakeout E	PG07	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.3.1, 3.4.1, 3.4.2, 4.2.1, 5.2.2, 5.2.3, 5.2.5, 6.2.7, 6.2.8, 6.2.11, 6.2.15	7047	Baghouse	NDC1
2528	Shakeout E	PG07	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.3.1, 3.4.1, 3.4.2, 4.2.1, 5.2.2, 5.2.3, 5.2.5, 6.2.7, 6.2.8, 6.2.11, 6.2.15	7047	Baghouse	NDC1
1481	Pourer F	PG07	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.2.1, 3.3.1, 3.3.2, 3.3.3, 3.3.9, 3.4.1, 3.4.2, 4.2.1, 5.2.1, 5.2.2, 5.2.3, 5.2.5, 6.2.1, 6.2.2, 6.2.7, 6.2.8, 6.2.11, 6.2.15	7049/ RTO	Baghouse/ Thermal Oxidizer	RTO1
2624	Cooling F	PG08	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.3.1, 3.3.2, 3.3.3, 3.3.9, 3.4.1, 3.4.2, 4.2.1, 5.2.1, 5.2.2, 5.2.3, 5.2.5, 6.2.7, 6.2.8, 6.2.11, 6.2.15	7049/ RTO	Baghouse/ Thermal Oxidizer	NDC1/ RTO1
2626	Shakeout F	PG08	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.3.1, 3.3.2, 3.3.3, 3.3.9, 3.4.1, 3.4.2, 4.2.1, 5.2.1, 5.2.2, 5.2.3, 5.2.5, 6.2.7, 6.2.8, 6.2.11, 6.2.15	7049/ RTO	Baghouse/ Thermal Oxidizer	RTO1
2627	Shakeout F	PG08	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.3.1, 3.4.1, 3.4.2, 4.2.1, 5.2.2, 5.2.3, 5.2.5, 6.2.7, 6.2.8, 6.2.11, 6.2.15	7047	Baghouse	NDC1
4003	Continuous Blast Machine E	PG07	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.3.1, 3.4.1, 3.4.2, 4.2.1, 5.2.2, 5.2.3, 5.2.5, 5.2.11, 5.2.12, 6.2.7, 6.2.8, 6.2.11, 6.2.15	7047	Baghouse	NDC1
4004	Continuous Blast Machine E & F	PG07	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.3.1, 3.4.1, 3.4.2, 4.2.1, 5.2.2, 5.2.3, 5.2.5, 5.2.11, 5.2.12, 6.2.7, 6.2.8, 6.2.11, 6.2.15	7047	Baghouse	NDC1
4005	Batch Blast Machine F	PG07	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.3.1, 3.4.1, 3.4.2, 4.2.1, 5.2.2, 5.2.3, 5.2.5, 5.2.11, 5.2.12, 6.2.7, 6.2.8, 6.2.11, 6.2.15	7047	Baghouse	NDC1
4000	Continuous Blast Machine	PG09	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.3.1, 3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 5.2.11, 5.2.12, 6.2.8	7029/ 7030	Baghouse	NDC5
4001	Batch Blast Machine	PG09	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.3.1, 3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 5.2.11, 5.2.12, 6.2.8	7029/ 7030	Baghouse	NDC5
4002	Batch Blast Machine	PG09	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.3.1, 3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 5.2.11, 5.2.12, 6.2.8	7029/ 7030	Baghouse	NDC5
4006	Batch Blast Machine	PG09	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.3.1, 3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 5.2.11, 5.2.12, 6.2.8	7029/ 7030	Baghouse	NDC5
4014	Blast Machine Line D	PG09	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.3.1, 3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 5.2.11, 5.2.12, 6.2.8	7029/ 7030	Baghouse	NDC5
CL01	Cleaning & Grinding Cell 1	PG09	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.3.1, 3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 5.2.11, 5.2.12, 6.2.8	7029/ 7030	Baghouse	NDC5
CL02	Cleaning & Grinding Cell 2	PG09	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.3.1, 3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 5.2.11, 5.2.12, 6.2.8	7029/ 7030	Baghouse	NDC5

Emission Units			Specific Limitations/Requirements		Air Pollution Control Devices		
ID No.	Description	Process Group	Applicable Requirements/Standards	Corresponding Permit Conditions	ID No.	Description	Stack ID No.
CL04	Cleaning & Grinding Cell 4	PG09	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.3.1, 3.4.1, 3.4.2, 4.2.1, 5.2.2, 5.2.3, 5.2.5, 6.2.7, 6.2.8, 6.2.11, 6.2.15	7047	Baghouse	NDC1
CL05	Cleaning & Grinding Cell 5	PG09	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.3.1, 3.4.1, 3.4.2, 4.2.1, 5.2.2, 5.2.3, 5.2.5, 5.2.11, 5.2.12, 6.2.7, 6.2.8, 6.2.11, 6.2.15	7047	Baghouse	NDC1
CL06	Cleaning & Grinding Cell 6	PG09	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.3.1, 3.4.1, 3.4.2, 4.2.1, 5.2.2, 5.2.3, 5.2.5, 6.2.7, 6.2.8, 6.2.11, 6.2.15	7047	Baghouse	NDC1
CL07	Cleaning & Grinding Cell 7	PG09	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.3.1, 3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 6.2.8	7029/ 7030	Baghouse	NDC5
CL12	Cleaning & Grinding Cell 12	PG09	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.3.1, 3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 6.2.8	7029/ 7030	Baghouse	NDC5
CL22	Cleaning & Grinding Cell 22	PG09	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.3.1, 3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 6.2.8	7029/ 7030	Baghouse	NDC5
CL23	Cleaning & Grinding Cell 23	PG09	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.3.1, 3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 5.2.11, 5.2.12, 6.2.8	7029/ 7030	Baghouse	NDC5
CL24	Cleaning & Grinding Cell 24	PG09	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.3.1, 3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 6.2.8	7029/ 7030	Baghouse	NDC5
CL25	Cleaning & Grinding Cell 25	PG09	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.3.1, 3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 6.2.8	7029/ 7030	Baghouse	NDC5
CL26	Cleaning & Grinding Cell 26	PG09	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.3.1, 3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 5.2.11, 5.2.12, 6.2.8	7029/ 7030	Baghouse	NDC5
CL27	Cleaning & Grinding Cell 27	PG09	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.3.1, 3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 5.2.11, 5.2.12, 6.2.8	7029/ 7030	Baghouse	NDC5
KUKA	Cleaning & Grinding	PG09	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.3.1, 3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 6.2.8	7029/ 7030	Baghouse	NDC5
5100	Sand Handling Lines A-D	PG10	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 6.2.8	7048	Baghouse	NDC1
5200	Sand Handling Lines A-D	PG10	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 6.2.8	7048	Baghouse	NDC1
5300	Sand Handling Lines A-D	PG10	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.4.1, 3.4.2, 5.2.2, 5.2.3, 5.2.5, 6.2.8	7048	Baghouse	NDC1
5500	Sand Handling Lines E-F	PG10	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	3.3.1, 3.4.1, 3.4.2, 4.2.1, 5.2.2, 5.2.5, 5.2.6, 6.2.7, 6.2.8, 6.2.9, 6.2.11, 6.2.15	7048	Baghouse	NDC1

* Generally applicable requirements contained in this permit may also apply to emission units listed above. The lists of applicable requirements/standards and corresponding permit conditions are intended as a compliance tool and may not be definitive.

B. Equipment & Rule Applicability

Emission and Operating Caps:

In order to avoid the PSD review, the facility accepted emission and operating limits.

In Air Quality Permit No. 3321-106-8169-0 the facility agreed to limit the annual output from the pressure pouring furnaces (Emission Unit ID Nos. 1480 and 1481). The annual output from the furnaces cannot exceed 187,500 tons during any consecutive 12-month period. The facility must not emit more than 0.052 pound of carbon monoxide (CO) per ton of metal and 0.029 pound of volatile organic compounds (VOC) per ton of metal from Stack RTO1. The facility must not emit more than 0.401 pound of VOC per ton of core sand from the TEA scrubber (ID NO. 3171).

The PM emissions for Stacks NDC1, NDC4, and 7046 were lowered from BACT limits of 0.0075 gr/dscf to 0.0050 gr/dscf to comply with MACT limits in Air Quality Permit No. 3321-215-0001-V-03-0. The PM limit for RTO1 was left unchanged since the BACT limit of 0.0075 gr/dscf is more stringent than the MACT limit of 0.010 gr/dscf.

In order to assure the performance of the TEA scrubber, the facility has to maintain the scrubber solution's pH below 4.5 and operate the TEA scrubber at all times when TEA is injected as a catalyst into Process Group PG02. Any pH measurement in excess of 4.5 is defined as an excursion in Condition 6.1.7.c.iv. The operating limit is made as Condition 3.3.10 in the draft permit.

Particulate matter emissions from Stack NDC5 are limited to 0.004 gr/dscf because this outlet grain loading emission factor that was used to calculate the potential emissions from the proposed baghouses (18.77 tpy) for Permit Amendment No. 3321-215-0001-V-04-4. Because this emission factor was used for PSD avoidance, it is included as an operating limit in Condition 3.3.1c. of the permit.

Removal of any of these conditions will result in a retroactive PSD review.

Rules and Regulations Assessment:

The pollutants emitted by the facility are PM, VOC, and CO. Georgia Air Quality Rules 391-3-1-.02(2)(e), "Particulate Emission from Manufacturing Processes" and 391-3-1-.02(2)(b), "Visible Emissions" limit the PM emissions. The PM, VOC, and CO emitted by certain sources within the facility are limited by the appropriate BACT determination as required by 40 CFR 52.21 and MACT requirements prescribed in 40 CFR 63 Subpart EEEEE.

Due to the stringency of a BACT determination and the MACT emission standards, the PM limits are considerably lower than Rule (e) allows. Likewise, the equipment subject to PM limits are unlikely to produce visible emissions that approach the 40 percent opacity allowed by Rule (b).

C. Permit Conditions

Previous Condition 3.3.7 of Permit No. 3321-215-0001-V-04-0 was deleted because it concerned TEA emission limits. Subsequent conditions were renumbered.

- Condition 3.2.1 limits the amount of iron poured from the pressure pour furnaces (Emission Unit ID Nos. 1480 and 1481) to no more than 187,500 tons for any consecutive 12-month period. This operational limit is part of the BACT determination required by 40 CFR 52.21.
- Condition 3.3.1 contains the PM emission limits for PSD avoidance. This condition was modified to add Condition 3.3.1c. (previously Condition 3.3.11) which limits the PM emission from Stack NDC5 to 0.004 gr/dscf. This is the outlet grain loading emission factor used for the emission calculations and for PSD avoidance.
- Condition 3.3.2 contains the CO emission limits.
- Conditions 3.3.3 and 3.3.4 contain the VOC emission limits. Condition 3.3.4 was modified in Permit Amendment No. 3321-215-0001-V-04-1 to update the name of the scrubber. This did not change the existing PSD avoidance limit.
- Condition 3.3.5 contains the opacity limit.
- Condition 3.3.6 limits the VOHAPs from the Scrap Preheaters (Source Code: 1023, 1033, 1153, 1163 and 1173) to 20 ppmv as required by the MACT.
- Condition 3.3.7 requires the facility to operate the capture and collection system and scrap preheaters in accordance with the MACT requirements. The condition was modified in Permit Amendment No. 3321-215-0001-V-04-1 to remove the references to TEA emission limits.
- Condition 3.3.8 requires the facility to operate the acid scrubber to control emissions in accordance with the MACT requirements. This condition was modified in Permit Amendment No. 3321-215-0001-V-04-1 to change the name of the scrubber, remove the reference to Condition 3.3.7 and update the citation.
- Condition 3.3.9 requires the facility to operate the RTO above the temperature established during the most recent Division approved performance test.
- Condition 3.3.10 requires the facility to operate the baghouses at the manufacturers recommended temperature.
- Condition 3.4.1 subjects the facility to the requirements of Georgia Rule (b).
- Condition 3.4.2 subjects the facility to the requirements of Georgia Rule (e).
- Condition 3.4.3 subjects the facility to the requirements of Georgia Rule (g).
- Condition 3.5.1 was added in Permit Amendment No. 3321-215-0001-V-04-1 and limits DMIPA as the cold box core making catalyst.

IV. Testing Requirements (with Associated Record Keeping and Reporting)

A. General Testing Requirements

The permit includes a requirement that the Permittee conduct performance testing on any specified emission unit when directed by the Division. Additionally, a written notification of any performance test(s) is required 30 days (or sixty (60) days for tests required by 40 CFR Part 63) prior to the date of the test(s) and a test plan is required to be submitted with the test notification. Test methods and procedures for determining compliance with applicable emission limitations are listed and test results are required to be submitted to the Division within 60 days of completion of the testing.

B. Specific Testing Requirements

- Condition 4.2.1 requires the facility to perform compliance test for PM, metal HAP and VOHAP emissions from the baghouses and scrubber to demonstrate compliance with MACT emission limits at least every five years. Due to the replacement of TEA with DMIPA as the cold box core making catalyst, this condition was modified in Permit Amendment No. 3321-215-0001-V-04-1 to remove reference to Condition 3.3.7 which concerned TEA emission limits and was deleted.
- Condition 4.2.2 requires a subsequent testing for the fugitive emission from building once every six months as required by the MACT standards.
- Condition 4.2.3 provides guidance for procedures to change operating parameters on the scrubber. Due to the replacement of TEA with DMIPA as the cold box core making catalyst, this condition was modified in Permit Amendment No. 3321-215-0001-V-04-1 to remove reference to Condition 3.3.7 which concerned TEA emission limits and was deleted. As a result, previous Condition 4.2.3b. was deleted and the remaining conditions were renumbered.
- Condition 4.2.4 of Permit Amendment No. 3321-215-0001-V-04-2 was completed on January 17, 2017; therefore, this condition was not included in this permit.
- Condition 4.2.4 of Permit Amendment No. 3321-215-0001-V-04-4 requires a performance test for PM emissions from Stack NDC5 in order to show compliance with the emission limit for the stack. Since this test has not been completed yet, this condition will remain in this permit.

V. Monitoring Requirements

A. General Monitoring Requirements

Condition 5.1.1 requires that all continuous monitoring systems required by the Division be operated continuously except during monitoring system breakdowns and repairs. Monitoring system response during quality assurance activities is required to be measured and recorded. Maintenance or repair is required to be conducted in an expeditious manner.

B. Specific Monitoring Requirements

- Condition 5.2.1 requires the facility to continuously monitor and record the temperature in each ceramic bed of the RTO (ID No. 7050) to ensure compliance with the limits of Georgia Rules (b) and (e).
- Condition 5.2.2.a requires the facility to install a differential pressure indicator on each baghouse and measure and record the pressure drop (differential pressure) across each baghouse. This condition was modified in Permit Amendment No. 3321-215-0001-V-04-2 was modified to remove Baghouse 7020 from this monitoring requirement since it was removed from service.
- Condition 5.2.2.b requires the facility to install an inlet temperature indicator for the melt deck baghouses in order to ensure the proper operation of these baghouses.
- Condition 5.2.3 requires the facility to perform a check of the visible emissions from each baghouse listed in Table 3.1. Visible emissions (VE) check is used as the primary monitoring parameter for the baghouses to ensure that the PM emission limits listed Condition 3.2.2 are not exceeded, the opacity limit in Condition 3.4.1 is not exceeded; and the PM emission allowed in Condition 3.4.2 are not exceeded. This condition was modified in Permit Amendment No. 3321-215-0001-V-04-2 was modified to remove Baghouse 7020 from the visible emissions requirement since it was removed from service.
- Condition 5.2.4 requires the facility to measure and record the pH of the scrubbing liquid in the scrubber once each day or portion of each day during which the scrubber operates to ensure the compliance with the VOC limit for the scrubber in Condition 3.2.5. This condition was modified in Permit Amendment No. 3321-215-0001-V-04-1 to change the name of the scrubber.
- Condition 5.2.5 requires the facility to inspect the baghouses according to specific requirements. These requirements serve as the secondary monitoring parameters for the baghouses that ensure the compliance with the PM emission limits. This condition was modified Permit Amendment No. 3321-215-0001-V-04-2 to remove Baghouse 7048 from the 40 CFR 63 Subpart EEEEE requirement for a bag leak detection system because this baghouse will only control emissions from the Foundry II Sand System (5100, 5200 and 5300) which is not subject to 40 CFR 63 Subpart EEEEE. Baghouse 7020 was also removed from the baghouse inspection requirements.
- Condition 5.2.6 requires the facility to maintain a baghouse leak detection system as required by the MACT standard.
- Conditions 5.2.7 through 5.2.10 incorporate the monitoring parameters for the scrubber as required by the MACT standard. Conditions 5.2.7 and 5.2.8 were modified in Permit Amendment No. 3321-215-0001-V-04-1 to change the name of the scrubber, remove references to Condition 3.3.7 and to update the citations. Conditions 5.2.9 and 5.2.10 were modified to update the citations. Condition 5.2.6 was modified in Permit Amendment No. 3321-215-0001-V-04-2 to remove Baghouse 7048 from the 40 CFR 63 Subpart EEEEE requirements for a bag leak detection system.

C. Compliance Assurance Monitoring (CAM)

CAM is not applicable to the emission units subject to 40 CFR 63 Subpart EEEEE, “National Emission Standards for Hazardous Air Pollutants for Iron and Steel foundries” which was published after November 15, 1990. However, the foundry operates several units that are considered *pollutant specific emission units* (PSEUs) per Part 64 because they are (1) subject to a pollutant emission standard for which there is a control device, and (2) the pre-controlled potential emissions for the pollutant is greater than the major source threshold.

The frequency of data collection under Part 64 depends on whether the controlled potential to emit exceeds the major source threshold (i.e., whether the PSEU is a large PSEU). A large PSEU required continuous monitoring while a PSEU that is not classified as large requires monitoring at least once per 24-hour period. The information for CAM units at the foundry is summarized below.

Emission Unit(s)	Control Device(s)	Pollutant	Potential Emissions (tpy)		Large PSEU(s)?
			Uncontrolled	Controlled	
Grinding Machine C &D	Baghouse 7047	PM	>100	34.29	No
Batch Blast Machine	Baghouse 7030	PM	>100	34.29	No
Blast Machine Line D	Baghouse 7029	PM	>100	34.29	No

Conditions 5.2.11 and 5.2.12 include the CAM requirements for these units.

VI. Record Keeping and Reporting Requirements

A. General Record Keeping and Reporting Requirements

The Permit contains general requirements for the maintenance of all records for a period of five years following the date of entry and requires the prompt reporting of all information related to deviations from the applicable requirements. Records, including identification of any excess emissions, exceedances, or excursions from the applicable monitoring triggers, the cause of such occurrence, and the corrective action taken, are required to be kept by the Permittee and reporting is required on a semiannual basis.

B. Specific Record Keeping and Reporting Requirements

- Condition 6.2.1 requires the facility to maintain records of the amount of metal poured from the pouring furnaces.
- Condition 6.2.2 requires the facility to submit with the semi-annual report the consecutive 12-month rolling total of metal poured as recorded by Conditions 6.2.1 and 6.2.2.
- Condition 6.2.3 requires the maintenance of records of the facilities efforts to control fugitive emissions.
- Condition 6.2.4 details the scrap certification requirement of the MACT standard.
- Condition 6.2.5 excludes methanol for binder formulation as required by the MACT Standard.
- Condition 6.2.6 details the work practice standards for the scrap preheater.
- Condition 6.2.7 details the operation and maintenance requirements of the MACT standard.
- Condition 6.2.8 requires the facility to be in compliance with the emission limits except during periods of startup, shut down and malfunction.
- Condition 6.2.9 details the record keeping requirements for the baghouse leak detection monitor and the baghouse inspection plan.
- Condition 6.2.10 requires the facility to maintain the records of the scrap inspection or scrap certification program.
- Condition 6.2.11 requires monthly inspection of the capture system and the baghouse as required by the MACT Standard. This condition was modified in Permit Amendment No. 3321-215-0001-V-04-1 to remove reference to Condition 3.3.7 which concerned TEA emission limits.
- Condition 6.2.12 contains the scrubber operating and recordkeeping requirements. This condition was modified in Permit Amendment No. 3321-215-0001-V-04-1 to change the name of the scrubber and to update the citation
- Condition 6.2.13 requires the facility to keep records of all binders used in the core making lines.
- Condition 6.2.14 incorporates the scrap preheater recordkeeping requirements
- Condition 6.2.15 requires the facility to maintain the current copy of the operation and maintenance plan onsite and available for inspection.

VII. Specific Requirements

A. Operational Flexibility

- None applicable.

B. Alternative Requirements

- None applicable.

C. Insignificant Activities

Refer to <http://gatv.georgiaair.org/GATV/default.asp> for the Online Title V Application.

Refer to the following forms in the Title V permit application:

- Form D.1 (Insignificant Activities Checklist)
- Form D.2 (Generic Emissions Groups)
- Form D.3 (Generic Fuel Burning Equipment)
- Form D.6 (Insignificant Activities Based on Emission Levels of the Title V permit application)

D. Temporary Sources

- None applicable.

E. Short-Term Activities

- None applicable.

F. Compliance Schedule/Progress Reports

- Not applicable.

G. Emissions Trading

- Not applicable.

H. Acid Rain Requirements

- Not applicable.

I. Stratospheric Ozone Protection Requirements

- Not applicable.

J. Pollution Prevention

- Not applicable.

K. Specific Conditions

- There are no additional facility-specific conditions that are not covered elsewhere.

VIII. General Provisions

Generic provisions have been included in this permit to address the requirements in 40 CFR Part 70 that apply to all Title V sources, and the requirements in Chapter 391-3-1 of the Georgia Rules for Air Quality Control that apply to all stationary sources of air pollution.

Template Condition 8.14.1 was updated in September 2011 to change the default submittal deadline for Annual Compliance Certifications to February 28.

Template Condition Section 8.27 was updated in August 2014 to include more detailed, clear requirements for emergency generator engines currently exempt from SIP permitting and considered insignificant sources in the Title V permit.

Template Condition Section 8.28 was updated in August 2014 to more clearly define the applicability of the Boiler MACT or GACT for major or minor sources of HAP.

Addendum to Narrative