Golder Associates Inc.

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www.golder.com

June 3, 2005

0437536

Florida Department of Environmental Protection
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Attention: Mr. Bruce Mitchell

RE: GERDAU AMERISTEEL – REQUEST FOR ADDITIONAL INFORMATION FOR THE JACKSONVILLE STEEL MILL PREVENTION OF SIGNIFICANT DETERIORATION ANALYSIS – PROJECT NO.: 0310157-007-AC/PSD-FL-349

Dear Mr. Mitchell:

This correspondence provides the additional information requested by the Florida Department of Environmental Protection (FDEP) concerning the PSD Application that was submitted by Gerdau Ameristeel in October of 2004. This information is presented in the same sequence as the requested information in FDEP's e-mail dated June 1, 2005, respectively.

Comment 1: Please, provide a final layout and description of the proposed facility.

Response: A final layout and description of the proposed facility is contained in Attachment A.

Comment 2: Since natural gas is the only fossil fuel being fired at the facility, it would seem that the projected actual and potential future/allowable SO_2 emissions would be negligible. As stated in your e-mail message, they are actually negligible. Based on this, it would appear that the emissions of SO_2 will not be subject to PSD NSR preconstruction review requirements per Rule 62-212.400(5), F.A.C., which includes BACT. If agreeable, please correct the application page(s) and resubmit.

Response: Gerdau Ameristeel agrees that SO_2 emissions from natural gas combustion are negligible. In particular, the Reheat Furnace will fire only natural gas and SO_2 emissions are negligible.

However, SO_2 emissions from the EAF are directly related to the amount of sulfur charged into the furnace. Sources of sulfur as described in PSD Application Section 5.2.5.3 are as follows:

- Scrap metal (scrap contaminated with grease and oils);
- Charge carbon; and
- Injection carbon.

Gerdau operates a scrap management which includes iron and steel scrap specifications (see Appendix C of the PSD application). Gerdau will utilize scrap management to minimize the amount of sulfur charged in the EAF and, as a result, minimize the amount of SO_2 emissions. The proposed SO_2 emission limit for the EAF/LMF is 0.20 lb/ton steel. This level of control is consistent with previous BACT determinations.

Comment 3: Due to the construction of two new separate buildings with a common wall, how does this affect the "Phases of Construction" provided in the application?

Response: The construction of two new separate buildings with a common wall will not affect the "Phases of Construction." The phases of construction are as follows:

- Phase I – New meltshop (EAF and LMF) and baghouse;
- Phase II – Continuous caster replacement; and
- Phase III – Replacement of reheat furnace.

See Attachment A for the project description.

Comment 4: It appears that the continuous caster will be a new emissions unit, due to the construction of a new continuous caster, LMF, and support activities building. Is this correct; or, are there still plans to upgrade the existing continuous caster?

Response: The continuous caster will be replaced, and there are currently no plans to upgrade the existing continuous caster.

Comment 5: The original application had the continuous caster being controlled by the Nos. 3 and 4 baghouse control systems. Now that a new baghouse control system (No. 5) will be installed to replace the Nos. 1 and 2 and 3 and 4 baghouse control systems, the flow rate (acfm and dscfm) has changed. Please correct the application page(s) and resubmit.

Response: The application forms have been updated to include PM emissions from LMF and ladle dumping in Emission Unit (EU) 001 (Electric Arc). In addition, EU 005 (Continuous Caster) has been removed from the application form since PM emissions generated by the caster only as negligible and the heat generated will be vented through roof vent. The updated application forms are included as Attachment B.

In the original submittal, the caster, EAF, and LMF were to be contained in one building. In this scenario, the heat from the caster could not be vented through the roof because of the PM emissions and capture system of the EAF. Therefore, the caster was to be vented to the old Baghouse 3-4 for heat removal and the capture of any stray PM emissions from the EAF that was not captured by Baghouse No. 5 (New)..The final facility layout includes two separate buildings with a common wall, one with the EAF and the other with the caster, LMF, and support activities. This new layout allows for better capture of PM emissions from the EAF that was not captured by Baghouse No. 5 (New). The final facility layout includes two separate buildings with a common wall, one with the EAF and the other with the caster, LMF, and support activities. This new layout allows for better capture of PM emissions from the EAF, and also allows the removal of the heat from the caster to be vented via the roof vent system, because PM emissions from the caster are negligible.

The caster itself is only a heat source and will be vented through the roof of the caster building. Scavenger collection systems will be placed over the PM sources in the caster area which include the LMF and ladle dumping area and will be controlled by the new baghouse.

Scavenger hoods will be placed over PM sources (LMF and ladle dumping area) in the caster area and vented to the new baghouse. These are the only significant PM sources associated with the caster area.

Comment 6: Has the company decided whether to replace or upgrade the existing Billet Reheat Furnace? If known, please provide the final direction that is being planned.

Response: The existing Billet Reheat Furnace (BRF) will be replaced with a new BRF.

Comment 7: Based on the overview of lead (actual and potential) that was provided by Jeff Koerner, it appears that the facility will not be subject to the PSD NSR preconstruction review requirements per Rule 62-212.400(5), F.A.C., which includes BACT. If you agree with his calculations and results, please correct the application page(s) and resubmit. Also, realize that this will be a decrease in the original BACT determination.

Response: Gerdau Ameristeel has reviewed the analysis of lead emissions provided by Jeff Koerner and agrees with the results. The corrected application pages are included as Attachment B.

Comment 8: It doesn't seem appropriate to have the Slag Handling Operation as a "permitted" emissions unit, when the only emissions are unconfined particulate matter and there are no emission limits or performance testing requirements, only throughput limitations. Therefore, it is recommended that the AC permit be used to remove the operation as a "permitted" emissions unit and place the operations under the "Facility-wide Conditions", specifically No. 7, as follows:

7. Unconfined Particulate Matter Emissions. Unconfined particulate matter emissions from yard operations, open stock piling of materials, and/or materials handling operations, such as the slag handling operations (including screening, crushing, and sizing operations of steel slag), shall be controlled by using the following reasonable precautions when visible emissions are equal to or greater than 20 percent opacity.
   a. Reduced speed for vehicular traffic in the plant to 5 miles per hour.
   b. Use of liquid resinous adhesives or other liquid (water) dust suppressants or wetting agents.
   c. Use of paving or other asphaltic materials.
   d. Removal of particulate matter from paved roads and/or other paved areas by vacuum cleaning or otherwise by wetting prior to sweeping.
   e. Covering of trucks, trailers, front-end loaders, and other vehicles or containers to prevent spillage of particulate matter during transport.
   f. Use of mulch, hydroseeding, grassing, and/or other vegetative ground cover on barren areas to prevent or reduce particulate matter from being windblown.
   g. Use of hoods, fans, filters, and similar equipment to contain, capture, and vent particulate matter.
   h. Enclosures or covering of conveyor systems.

   [Rules 62-296.320(4)(b) & (c)2., F.A.C.; 0310157-004-AC/PSD-FL-261; Rule 2.1001, JEPB; and 0310157-007-AC/PSD-FL-349.]

Response: Gerdau Ameristeel agrees with FDEP. The Slag Handling Operations are more appropriately handled as the "Facility-wide Conditions" as described in the comment.

Comment 9: The previous permits and ARMS have allowed the use of propane as a backup fuel for the BRF. I did not see any application pages to reflect this potential. If the BRF is not going to use propane, please confirm.

Response: No propane will be used in the new reheat furnace.

Comment 10: Based on the information provided, it was indicated that the new baghouse control system (No. 5) will also be the control device for the dust handling system. Since there are exemptions of certain regulations contained in 40 CFR 60, Subpart AAa, it was indicated in the application that the EAF's new No. 5 baghouse control system will also be used to control the dust handling system. Is this direction still correct? If not, please advise.

Response: Yes, the new baghouse (No. 5) will be used as the control device for the dust handling system.

Comment 11: In the new building for the continuous caster, LMF, and support activities, what is the heat source for the following emission units/activities:

- Tundish preheating station;
- Tundish drying station; and
- Ladle preheater(s).

Response: The heat source for tundish preheating, tundish drying, and ladle pre-heaters is natural gas.

Comment 12: With the use of argon gas in the LMF refining process, why isn't the "LMF" considered to be an "AOD" (Argon-Oxygen Decarbonization) vessel?

Response: The LMF utilizes an electric arc to maintain the temperature of the steel in the ladle while the composition of the steel is refined. Argon gas is used in the LMF for stirring/agitation of the molten steel, not for the decarbonization of the steel. Typically, the argon gas will be used when wire rod grade (low carbon) steel is being manufactured. AODs are typically used to produce low carbon content steel such as stainless, which is not produced at this facility.

Gerdau Ameristeel wishes to resolve all of FDEP's questions as expeditiously as possible, so that they may move forward with the proposed project in a timely manner. Please call me or Kennard Kosky at (352) 336-5600 if you need any additional information.

Sincerely,

GOLDER ASSOCIATES INC.

Kennard F. Kosky, PE.
Principal

David T. Larocca
Project Engineer

DTL/dmw

Enclosures

cc: Donald R. Shumake, Vice President/General Manager
James P. Wold, Environmental Specialist, Gerdau Ameristeel

ATTACHMENT A

1.0 PROJECT DESCRIPTION

1.1 SITE DESCRIPTION

Gerdau owns and operates a secondary metal production facility, electric arc furnace (EAF) steel mill located in Baldwin, Florida, (Jacksonville Steel Mill). The Jacksonville Steel Mill receives scrap steel by truck and rail and processes it into steel rebar, wire, and rod. The meltshop facility has been operating since 1975.

The existing EAF is currently situated on the ground floor of the meltshop, tapping an average 93-ton heat into a ladle supported by an overhead crane. A heat is defined as one batch of steel produced by the EAF. The process flow diagram and plot plan for existing operations are provided in Figures 2-1 and 2-2, respectively. The tapped steel is gravity-fed from the ladle into a tundish to form steel billets in the continuous caster. Slag, which is formed at the top of the steel bath by injecting limestone into the steel bath, removes impurities and insulates the steel bath. Before tapping, the furnace is tilted to pour the slag into the furnace pit. Front-end loaders remove the slag from the pit and transport it to the slag processing area. The EAF and continuous caster together make up one emission unit (No. 001) in the current Title V permit No. 0310157-002-AV (see Appendix A). PM emissions are currently controlled by two fabric filter (baghouses), identified as Baghouse 1-2 and Baghouse 3-4. Baghouse 3-4 evacuates the meltshop via canopy hoods and Baghouse 1-2 serves the "fourth-hole" direct evacuation system on the EAF. The fourth-hole is a water-cooled duct that connects to the top of the EAF, and maintains a negative pressure in the EAF during melting and refining stages of the heat.

The meltshop currently operates with EAF refractory and maintenance downtime scheduled about once every 3 weeks. Extensive cleaning is required during this downtime period in addition to the normally scheduled refractory and maintenance workload. Approximately 12 hours are required every down day to safely dig out the EAF; clean the EAF fourth hole direct evacuation system, north rocker pier, and furnace pit; and clean the south access platform and tilt cylinder bases.

Emission Unit 001 (EAF and continuous caster) is operationally limited as follows:

- 81.6 million British thermal units per hour (MMBtu/hr) firing natural gas or propane;
- 100 billet tons of steel per hour, maximum daily average;
- 90 billet tons of steel per hour, maximum monthly average;
- 720,000 billet tons of steel per year; and
- 8,000 hours per year.

The facility processes steel billets into steel rebar, wire and rod. This is accomplished by reheating the billets in the Reheat Furnace (Emission Unit No. 002) and processing them through various rolling and wire machines in the rolling and wire mills. See process flow diagram in Figure 2-1. The Reheat Furnace is natural gas fired with a maximum permitted heat input of 222 MMBtu/hr. The permitted production rates are:

- 120 billet tons of steel per hour, maximum daily average; and
- 720,000 billet tons of steel per year.

For determination of PSD applicability, 2002 and 2003 actual emissions for the Gerdau Mill are summarized in Table 2-1. These emissions are based on compliance test data, annual operating reports, and engineering studies available from the mill.

As shown, emissions from Emission Unit 001 include emissions from both Baghouses 1-2 and 3-4 combined. However, a majority of the gaseous emissions are generated during the melting and refining stages of the heat, and as such are pulled from the EAF through the fourth hole and emitted through Baghouse 1-2. Past test data has shown that approximately 90 percent of the gaseous emissions are emitted through the fourth-hole duct and through Baghouse 1-2.

1.2 PROPOSED PROJECT MODIFICATIONS

Gerdau is proposing to make modifications to the facility, including replacement of the existing meltshop with a new meltshop containing a new EAF and LMF. The new meltshop will be a building addition on the east side of the existing meltshop. Also included in the proposed modification are: replacement of the continuous caster and reheat furnace. The Project will be performed in the following phases:

- Phase I – New Meltshop (EAF and LMF) and new Baghouse
- Phase II – Continuous Caster Replacement
- Phase III –Replacement of the Reheat Furnace

1.2.1 PHASE I – NEW MELTSHOP (EAF AND LMF) AND NEW BAGHOUSE

The new meltshop will consist of a building extension onto the east side of the existing meltshop and contain the new EAF and LMF. The new building will have approximate length and width dimensions of 160 by 90 feet (ft) and will be located to the southeast of the existing meltshop. The existing EAF will be permanently shut down upon successful commissioning and startup of the new EAF/LMF. A process flow diagram and plot plan of the new Meltshop configuration are provided in Figures 2-3 through 2-5.

The current EAF, while generating heats at an average rate of 19 tons per day (TPD), has many process limitations in addition to being restrictive due to maintenance and safety concerns. Ongoing repairs and maintenance to the furnace to continue operating at these rates are extensive and place limitations on power input to the furnace. The Project proposes installation of a new EAF, tapping 105 tons of liquid steel, and a new LMF.

The LMF will be used to refine the composition of the steel, a process step that is currently performed in the existing EAF. The LMF will improve turnaround time between caster and furnace. The LMF is a small EAF used to keep the steel bath at temperature during the refining step. The following are some of the advantages the LMF will provide:

- Casting temperature controlled more accurately;
- Successful targeting of lower end of range for alloy additions;
- No turnarounds on caster due to small furnace delays;
- Homogeneous ladle temperature;
- More efficient stirring;
- Furnace tapping without taking chemistry samples;
- Need to pour heats back to the EAF eliminated; and
- Improved nozzle life on the caster.

The proposed EAF furnace constructed on a mezzanine will significantly reduce downtime associated with the work required to safely clean out areas under the furnace. It will also significantly improve maintenance access to the furnace structure and reduce the time required to accomplish maintenance. The following summarizes the advantages of the new EAF and LMF:

- Elimination of delays associated with turnaround times and subsequent decrease in power off time, resulting in approximately 11-percent decrease in electrical consumption;
- Allow caster to run at constant speed;

- Elimination of downtime delays due to furnace pit cleaning;
- Minimize safety concerns associated with pit furnace during maintenance and production downtimes;
- Eliminate safety concerns related to groundwater presence in molten metal handling areas;
- Quality issues – improvements associated with LMF and automated alloy system;
- Minimize temperature issues throughout the process; and
- Improved maintenance access and reliability.

The new meltshop will have a maximum design capacity of 1,192,800 tons of tapped steel per year at 8,520 hours per year (hr/yr). The current facility has a permitted capacity of 720,000 tons per year (TPY) at 8,000 hr/yr. The EAF and LMF will each have a daily maximum hourly production rate of 160 TPH and a monthly maximum hourly production rate of 140 TPH.

The Project will require reconfiguration of facility supporting activities including scrap delivery from the scrap yard to the furnace and slag processing. Currently, scrap is loading into rail cars in the scrap yard in the south section of the facility. The rail cars are then taken to the west end of the existing meltshop to be unloaded by crane into charge buckets. A new scrap building with a concrete floor will be constructed south of the new meltshop building. Incoming scrap will be received directly into the new building by both railcar and truck. The scrap will then be loaded into the charge buckets with overhead cranes and transported by a specialized rail car to the meltshop. The rail cars will be routed into the south end of the new meltshop building where a crane will pick up the loaded charge bucket and charge the EAF. The existing outside scrap yard will be maintained as a scrap inventory overflow area, and the daily level of activities will be reduced.

As a result of the location of the new meltshop and scrap delivery operation, the existing slag processing operation will be relocated east of the current position. The new location is further within the facility property and further from existing property lines (see Figure 2-4).

1.2.2 PHASE II – CONTINUOUS CASTER REPLACEMENT

The proposed new caster will be a five-strand machine with a 26.24-ft radius. Distance between strand centers will be 3.92 ft. The minimum and maximum cross sections that the caster will handle will be 127 and 160 millimeters (mm), respectively. The throughput of the caster will vary between 110 and 160 TPH dependent on grade and size of product. Product mix will include both rebar and

wire. The caster will be capable of handling up to a 120-ton ladle. Billet length will extend from the current 31 ft, 9 inches to a range of 28 to 46 ft.

Several new buildings will be added to the facility during the course of the Project. These will include a new caster building (100 x 240 ft) and an extended billet yard. Several new cranes will be included in the Project. These will range from 10 to 225 tons.

The Project will also feature several new water systems. These include water treatment systems for mold, spray, and machine cooling.

The Project will also include several auxiliary and repair pieces of equipment including, but not limited to, the following:

- Mold testing stand;
- Tundish tilt stand;
- Tundish preheating station;
- Tundish drying station; and
- Ladle pre-heater(s).

1.2.3 PHASE III – REPLACEMENT OF THE REHEAT FURNACE

The facility processes steel billets into steel rebar, wire, and rod. This is accomplished by reheating the steel billets produced by the continuous caster in the Reheat Furnace and processing them through various rolling and wire machines in the rolling and wire mills. The Reheat Furnace is natural gas fired with a maximum permitted heat input of 222 MMBtu/hr. The current permitted production rates are:

- 120 billet tons of steel per hour, maximum daily average;
- 720,000 billet tons of steel per year; and
- 8,500 hr/yr.

The Project will increase the capacity of the reheat furnace by replacing the furnace. The furnace will be equipped with new burners and the maximum heat input required will stay the same at 222 MMBtu/hr. The new Reheat Furnace will be relocated immediately south and east of the existing furnace and the stack will now be located east of the rolling mill building.

The proposed new production limits will match those of the EAF and LMF as follows:

- 160 billet tons of steel per hour, maximum daily average;
- 1,192,800 billet tons of steel per year; and
- 8,520 hr/yr.

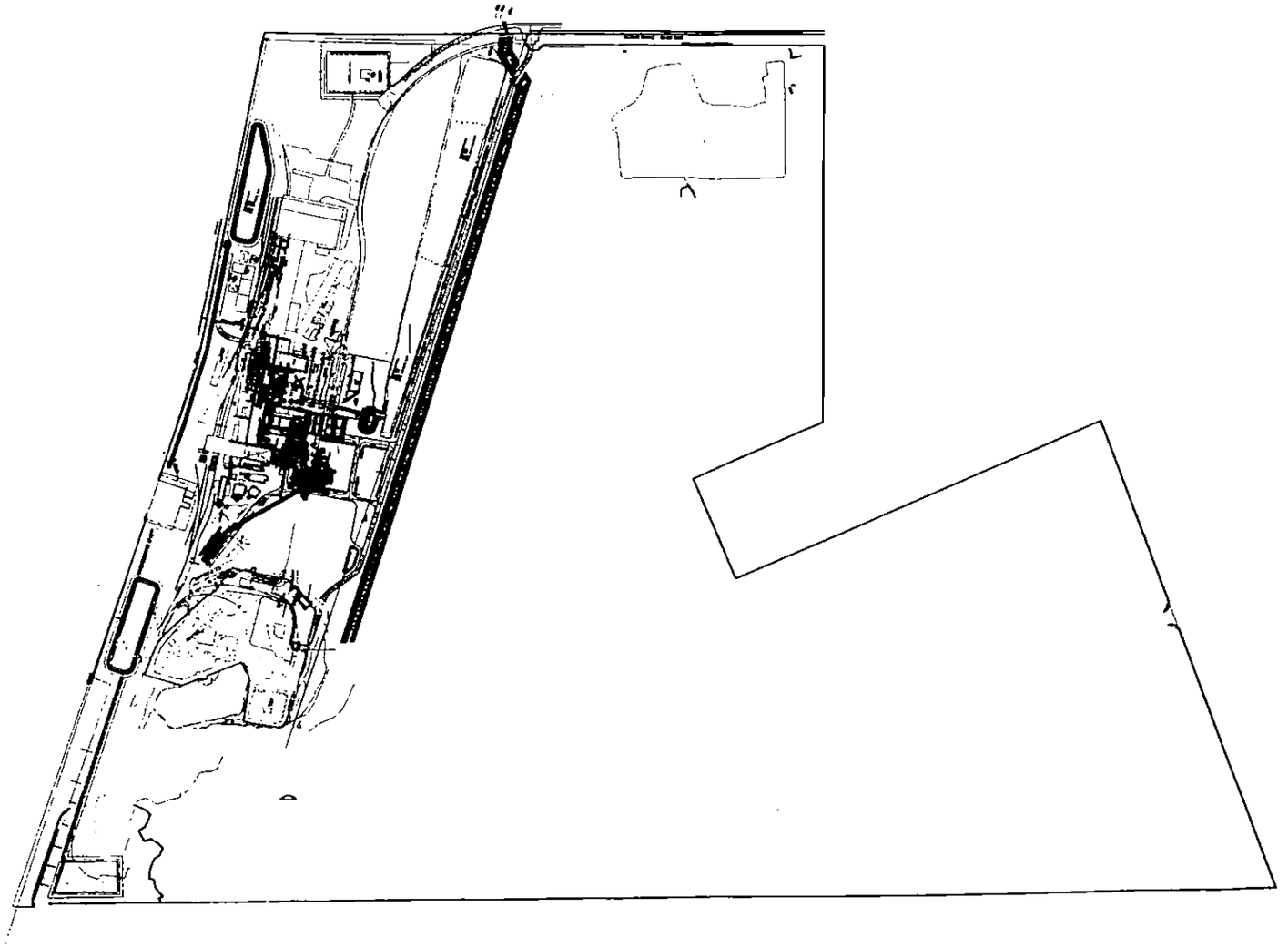


Figure 2-4
General Layout of the Proposed Gerdau Ameristeel Jacksonville Steel Mill

Source: Golder, 2004.

Golder Associates

Figure 2-5
Detailed Configuration of the Proposed Gerdau Ameristeel Jacksonville Steel Mill

Source: Golder, 2004.

Golder Associates

ATTACHMENT B

Department of Environmental Protection

Division of Air Resource Management

APPLICATION FOR AIR PERMIT - LONG FORM

I. APPLICATION INFORMATION

Air Construction Permit - Use this form to apply for an air construction permit for a proposed project:

- subject to prevention of significant deterioration (PSD) review, nonattainment area (NAA) new source review, or maximum achievable control technology (MACT) review; or
- where the applicant proposes to assume a restriction on the potential emissions of one or more pollutants to escape a federal program requirement such as PSD review, NAA new source review, Title V, or MACT; or
- at an existing federally enforceable state air operation permit (FESOP) or Title V permitted facility.

Air Operation Permit - Use this form to apply for:

- an initial federally enforceable state air operation permit (FESOP); or
- an initial/revised/renewal Title V air operation permit.

Air Construction Permit & Revised/Renewal Title V Air Operation Permit (Concurrent Processing Option) - Use this form to apply for both an air construction permit and a revised or renewal Title V air operation permit incorporating the proposed project.

To ensure accuracy, please see form instructions.

Identification of Facility

1. Facility Owner/Company Name: **Gerdau Ameristeel**	
2. Site Name: **Jacksonville Steel Mill**	
3. Facility Identification Number: **0310157**	
4. Facility Location...: Street Address or Other Locator: **16770 Rebar Road** City: **Baldwin** County: **Duval** Zip Code: **32234**	
5. Relocatable Facility? ☐ Yes ☒ No	6. Existing Title V Permitted Facility? ☒ Yes ☐ No

Application Contact

1. Application Contact Name: **James P. Wold, Environmental Specialist**
2. Application Contact Mailing Address: Organization/Firm: **Gerdau Ameristeel** Street Address: **16770 Rebur Road** City: **Baldwin** State: **FL** Zip Code: **32234**
3. Application Contact Telephone Numbers... Telephone: **(904) 226-4261** ext.**133** Fax: **(904) 266-2996**
4. Application Contact Email Address: **jwold@gerdauameristeel.com**

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	
2. Project Number(s):	
3. PSD Number (if applicable):	
4. Siting Number (if applicable):	

APPLICATION INFORMATION

Purpose of Application

This application for air permit is submitted to obtain: (Check one)

Air Construction Permit

☒ Air construction permit.

Air Operation Permit

☐ Initial Title V air operation permit.

☐ Title V air operation permit revision.

☐ Title V air operation permit renewal.

☐ Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.

☐ Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit (Concurrent Processing)

☐ Air construction permit and Title V permit revision, incorporating the proposed project.

☐ Air construction permit and Title V permit renewal, incorporating the proposed project.

Note: By checking one of the above two boxes, you, the applicant, are requesting concurrent processing pursuant to Rule 62-213.405, F.A.C. In such case, you must also check the following box:

☐ I hereby request that the department waive the processing time requirements of the air construction permit to accommodate the processing time frames of the Title V air operation permit.

Application Comment

The current Title V Air Operating Permit is No. 0310157-002-AV.
See Part 2.

APPLICATION INFORMATION

Scope of Application

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Proc. Fee
001	Electric Arc Furnace	AC1A	NA
002	Billet Reheat Furnace	AC1A	NA

Application Processing Fee

Check one: ☐ Attached - Amount: $_____ ☐ Not Applicable

APPLICATION INFORMATION

Owner/Authorized Representative Statement

Complete if applying for an air construction permit or an initial FESOP.

1. Owner/Authorized Representative Name :
   Donald R. Shumake, Vice President/General Manager
2. Owner/Authorized Representative Mailing Address...
   Organization/Firm: **Gerdau Ameristeel**
   Street Address: **16770 Rebar Road**
   City: **Baldwin** State: **Florida** Zip Code: **32234**
3. Owner/Authorized Representative Telephone Numbers...
   Telephone: **(904) 226-4261** ext.**100** Fax:**(904) 266-4244**
4. Owner/Authorized Representative Email Address: **shumake@gerdauameristeel.com**
5. Owner/Authorized Representative Statement:

   I, the undersigned, am the owner or authorized representative of the facility addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other requirements identified in this application to which the facility is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit.

   Donald R. Shumake — Signature

   6-1-05 — Date

APPLICATION INFORMATION

Professional Engineer Certification

1. Professional Engineer Name: **Kennard F. Kosky**
   Registration Number: **14996**
2. Professional Engineer Mailing Address:
   Organization/Firm: **Golder Associates Inc.****
   Street Address: **6241 NW 23rd Street, Suite 500**
   City: **Gainesville** State: **FL** Zip Code: **32653-1500**
3. Professional Engineer Telephone Numbers:
   Telephone: **(352) 336-5600** ext. Fax: **(352) 336-6603**
4. Professional Engineer Email Address: **KKosky@golder.com**
5. Professional Engineer Statement:

I, the undersigned, hereby certify, except as particularly noted herein, that:*

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

(3) If the purpose of this application is to obtain a Title V air operation permit (check here ☐, if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.

(4) If the purpose of this application is to obtain an air construction permit (check here ☒, if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here ☐, if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here ☐, if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

Kennard F Kosky
Signature

6/3/05
Date

(seal) KFK

* Attach any exception to certification statement
** **Board of Professional Engineers Certificate of Authorization #00001670**

APPLICATION INFORMATION

Application Responsible Official Certification

Complete if applying for an initial/revised/renewal Title V permit or concurrent processing of an air construction permit and a revised/renewal Title V permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary responsible official."

1. Application Responsible Official Name:

2. Application Responsible Official Qualification (Check one or more of the following options, as applicable):

   ☐ For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.

   ☐ For a partnership or sole proprietorship, a general partner or the proprietor, respectively.

   ☐ For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.

   ☐ The designated representative at an Acid Rain source.

3. Application Responsible Official Mailing Address:
   Organization/Firm:
   Street Address:
   City: State: Zip Code:

4. Application Responsible Official Telephone Numbers:
   Telephone: () ext. Fax: ()

5. Application Responsible Official Email Address:

6. Application Responsible Official Certification:

   I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.

   Signature Date

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates: Zone **17** East (km) **405.7** North (km) **3,350.2**		2. Facility Latitude/Longitude: Latitude (DD/MM/SS) **30/16/52** Longitude (DD/MM/SS) **81/58/50**	
3. Governmental Facility Code: **0**	4. Facility Status Code: **A**	5. Facility Major Group SIC Code: **33**	6. Facility SIC(s): **3390**
7. Facility Comment :			

Facility Contact

1. Facility Contact Name: **James P. Wold, Environmental Specialist**
2. Facility Contact Mailing Address... Organization/Firm: **Gerdau Ameristeel** Street Address: **16770 Rebar Road** City: **Baldwin** State: **FL** Zip Code: **32234**
3. Facility Contact Telephone Numbers: Telephone: **(904) 226-4261** ext.**133** Fax: **(904) 266-2996**
4. Facility Contact Email Address: **jwold@gerdauameristeel.com**

Facility Primary Responsible Official

Complete if an "application responsible official" is identified in Section I. that is not the facility "primary responsible official."

1. Facility Primary Responsible Official Name:
2. Facility Primary Responsible Official Mailing Address: Organization/Firm: Street Address: City: State: Zip Code:
3. Facility Primary Responsible Official Telephone Numbers: Telephone: () ext. Fax: ()
4. Facility Primary Responsible Official Email Address:

FACILITY INFORMATION

Facility Regulatory Classifications

Check all that would apply *following* completion of all projects and implementation of all other changes proposed in this application for air permit. Refer to instructions to distinguish between a "major source" and a "synthetic minor source."

1. ☐ Small Business Stationary Source	☐ Unknown
2. ☐ Synthetic Non-Title V Source	
3. ☒ Title V Source	
4. ☐ Major Source of Air Pollutants, Other than Hazardous Air Pollutants (HAPs)	
5. ☐ Synthetic Minor Source of Air Pollutants, Other than HAPs	
6. ☐ Major Source of Hazardous Air Pollutants (HAPs)	
7. ☐ Synthetic Minor Source of HAPs	
8. ☒ One or More Emissions Units Subject to NSPS (40 CFR Part 60)	
9. ☐ One or More Emissions Units Subject to Emission Guidelines (40 CFR Part 60)	
10. ☐ One or More Emissions Units Subject to NESHAP (40 CFR Part 61 or Part 63)	
11. ☐ Title V Source Solely by EPA Designation (40 CFR 70.3(a)(5))	
12. Facility Regulatory Classifications Comment:	

FACILITY INFORMATION

List of Pollutants Emitted by Facility

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
NO_x	A	N
CO	A	N
VOC	B	N
PM	A	N
PM_{10}	A	N
Lead	B	N
SO_2	A	N

B. EMISSIONS CAPS

Facility-Wide or Multi-Unit Emissions Caps

1. Pollutant Subject to Emissions Cap	2. Facility Wide Cap [Y or N]? (all units)	3. Emissions Unit ID No.s Under Cap (if not all units)	4. Hourly Cap (lb/hr)	5. Annual Cap (ton/yr)	6. Basis for Emissions Cap

7. Facility-Wide or Multi-Unit Emissions Cap Comment:

C. FACILITY ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Facility Plot Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) ☒ Attached, Document ID: **See Part 2** ☐ Previously Submitted, Date:____
2. Process Flow Diagram(s): (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) ☒ Attached, Document ID: **See Part 2** ☐ Previously Submitted, Date:____
3. Precautions to Prevent Emissions of Unconfined Particulate Matter: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) ☐ Attached, Document ID: ☒ Previously Submitted, Date: **Title V Feb 04**

Additional Requirements for Air Construction Permit Applications

1. Area Map Showing Facility Location: ☒ Attached, Document ID: **See Part 2** ☐ Not Applicable (existing permitted facility)
2. Description of Proposed Construction or Modification: ☒ Attached, Document ID: **See Part 2**
3. Rule Applicability Analysis: ☒ Attached, Document ID: **See Part 2**
4. List of Exempt Emissions Units (Rule 62-210.300(3)(a) or (b)1., F.A.C.): ☒ Attached, Document ID: **GA-FI-CC4** ☐ Not Applicable (no exempt units at facility)
5. Fugitive Emissions Identification (Rule 62-212.400(2), F.A.C.): ☒ Attached, Document ID: **See Part 2** ☐ Not Applicable
6. Preconstruction Air Quality Monitoring and Analysis (Rule 62-212.400(5)(f), F.A.C.): ☒ Attached, Document ID: **See Part 2** ☐ Not Applicable
7. Ambient Impact Analysis (Rule 62-212.400(5)(d), F.A.C.): ☒ Attached, Document ID: **See Part 2** ☐ Not Applicable
8. Air Quality Impact since 1977 (Rule 62-212.400(5)(h)5., F.A.C.): ☒ Attached, Document ID: **See Part 2** ☐ Not Applicable
9. Additional Impact Analyses (Rules 62-212.400(5)(e)1. and 62-212.500(4)(e), F.A.C.): ☒ Attached, Document ID: **See Part 2** ☐ Not Applicable
10. Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.): ☐ Attached, Document ID:____ ☒ Not Applicable

FACILITY INFORMATION

Additional Requirements for FESOP Applications

1. List of Exempt Emissions Units (Rule 62-210.300(3)(a) or (b)1., F.A.C.):
   ☐ Attached, Document ID:____ ☒ Not Applicable (no exempt units at facility)

Additional Requirements for Title V Air Operation Permit Applications

1. List of Insignificant Activities (Required for initial/renewal applications only):
   ☐ Attached, Document ID:____ ☐ Not Applicable (revision application)

2. Identification of Applicable Requirements (Required for initial/renewal applications, and for revision applications if this information would be changed as a result of the revision being sought):
   ☐ Attached, Document ID:
   ☐ Not Applicable (revision application with no change in applicable requirements)

3. Compliance Report and Plan (Required for all initial/revision/renewal applications):
   ☐ Attached, Document ID:
   Note: A compliance plan must be submitted for each emissions unit that is not in compliance with all applicable requirements at the time of application and/or at any time during application processing. The department must be notified of any changes in compliance status during application processing.

4. List of Equipment/Activities Regulated under Title VI (If applicable, required for initial/renewal applications only):
   ☐ Attached, Document ID:____
   ☐ Equipment/Activities On site but Not Required to be Individually Listed
   ☐ Not Applicable

5. Verification of Risk Management Plan Submission to EPA (If applicable, required for initial/renewal applications only) :
   ☐ Attached, Document ID:____ ☐ Not Applicable

6. Requested Changes to Current Title V Air Operation Permit:
   ☐ Attached, Document ID:____ ☐ Not Applicable

Additional Requirements Comment

Gerdau is proposing to make modifications to the facility including replacement of the existing meltshop with a new meltshop containing a new EAF and ladle metallurgical furnace (LMF). Also included in the proposed modification are replacement of the continuous caster and reheat furnace. See Part 2.

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application for air permit. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application – Where this application is used to apply for both an air construction permit and a revised/renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. **The air construction permitting classification must be used to complete the Emissions Unit Information Section of this application for air permit.** A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air construction permitting and insignificant emissions units are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

☒ The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

☐ The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

☐ This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

☒ This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

☐ This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:
Electric Arc Furnace (EAF and LMF)

3. Emissions Unit Identification Number:

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
C	Jan 05		3390	☐ Yes ☒ No

9. Package Unit:
Manufacturer: Model Number:

10. Generator Nameplate Rating: MW

11. Emissions Unit Comment:
The existing EU 001 includes the EAF and Continuous Caster, the proposed EU 001 will include replacement of the existing EAF with a new EAF and LMF, and Meltshop Building; emissions will be controlled by a new Baghouse designated as Baghouse No. 5. Scavenger collection systems will be placed over PM sources in the caster area including the LMF and ladle dumping areas. The caster is an insignificant source and will be vented through roof vents.

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:

Baghouse (Fabric filter – medium temperature)
Baghouse No. 5

2. Control Device or Method Code(s): **017**

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: **176 TPH (scrap steel)**	
2. Maximum Production Rate: **160 billet TPH**	
3. Maximum Heat Input Rate: **34.6** million Btu/hr	
4. Maximum Incineration Rate: pounds/hr tons/day	
5. Requested Maximum Operating Schedule:	
24 hours/day	**7** days/week
52 weeks/year	**8,520** hours/year
6. Operating Capacity/Schedule Comment:	

**Batch operation with a maximum daily average of 160 billet tons steel per hour,
Monthly average of 140 billet tons steel per hour
1,200,000 billet tons of steel per year.**

C. EMISSION POINT (STACK/VENT) INFORMATION
(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: **5A, 5B**	2. Emission Point Type Code: **3**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: **Baghouse No. 5 will have two identical stacks located on the north east end of the baghouse structure.**		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code: **V**	6. Stack Height: **110** feet	7. Exit Diameter: **12** feet
8. Exit Temperature: **230** °F	9. Actual Volumetric Flow Rate: **1,000,000** acfm	10. Water Vapor: **5** %
11. Maximum Dry Standard Flow Rate: dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: East (km): North (km):	14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment: **Actual volumetric flow will vary from 750,000 to 1,000,000 acfm as needed to sufficiently evacuate the EAF and Meltshop building.**		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Process/Fuel Type): **Industrial Process, Natural Gas**		
2. Source Classification Code (SCC): **3-90-006-99**	3. SCC Units: **Million cubic feet (MMcuft)**	
4. Maximum Hourly Rate: **0.034**	5. Maximum Annual Rate: **291.7**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: **1,019**
10. Segment Comment: **214 cuft/ton steel x 160 ton/hr = 0.034 MMcuft/hr** **0.034 MMcuft/hr x 8,520 hr/yr = 291.7 MMcuft/yr**		

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type): **Scrap Steel**		
2. Source Classification Code (SCC): **3-03-009-04**	3. SCC Units: **Tons of Raw Material**	
4. Maximum Hourly Rate: **176**	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: **Raw materials (scrap steel, fluxes, alloys, etc.) to EAF**		

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM	017		EL
PM_{10}	017		EL
CO			EL
NO_x			EL
VOC			EL
Lead (Pb)	017		EL
SO_2			NS

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control: **99%**
3. Potential Emissions: **15.43** lb/hour **65.7** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.0018 gr/dscf** Reference: **BACT**	7. Emissions Method Code: **0**
8. Calculation of Emissions: **0.0018 gr/dscf x (1,000,000 acfm) x 60 min/1 hr x 1 lb/7,000 gr = 15.43 lb/hr = 65.7 TPY**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **Annual emissions based on 8,520 hours per year.**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.0018 gr/dscf**	4. Equivalent Allowable Emissions: **15.43** lb/hour **65.7** tons/year
5. Method of Compliance: **EPA Method 5.**	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM_{10}**	2. Total Percent Efficiency of Control: **99%**
3. Potential Emissions: **15.43** lb/hour **65.7** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.0018 gr/dscf** Reference: **BACT**	7. Emissions Method Code: **0**
8. Calculation of Emissions:	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **Annual emissions based on 8,520 hours per year.**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.0018 gr/dscf**	4. Equivalent Allowable Emissions: **15.43** lb/hour **65.7** tons/year
5. Method of Compliance: **EPA Method 5**	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **CO**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **320** lb/hour **1,200** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **2.0 lb/ton of steel** Reference: **BACT**	7. Emissions Method Code: **0**
8. Calculation of Emissions: **160 ton/hr x 2.0 lb/ton = 320 lb/hr** **1,200,000 ton/yr x 2.0 lb/ton = 1,200 lb/hr**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **Annual emissions based on 8,520 hours per year.**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **2.0 lb/ton of steel**	4. Equivalent Allowable Emissions: **320** lb/hour **1,200** tons/year
5. Method of Compliance: **EPA Method 10; 24-hour average.**	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **NO_x**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **52.8** lb/hour **198** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.33 lb/ton of steel** Reference: **BACT**	7. Emissions Method Code: **0**
8. Calculation of Emissions: **160 ton/hr x 0.33 lb/ton = 52.8 lb/hr** **1,200,000 ton/yr x 0.33 lb/ton = 198 lb/hr**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **Annual emissions based on 8,520 hours per year.**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.33 lb/ton steel**	4. Equivalent Allowable Emissions: **52.8** lb/hour **198** tons/year
5. Method of Compliance: **EPA Method 7E**	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **VOC**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **20.8** lb/hour **78.0** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.13 lb/ton of steel** Reference: **BACT**	7. Emissions Method Code: **0**
8. Calculation of Emissions: **160 ton/hr x 0.13 lb/ton = 20.8 lb/hr** **1,200,000 ton/yr x 0.13 lb/ton = 78.0 lb/hr**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **Annual emissions based on 8,520 hours per year.**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.13 lb/ton of steel**	4. Equivalent Allowable Emissions: **20.8** lb/hour **78** tons/year
5. Method of Compliance: **EPA Method 18, 25, or 25A**	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **Lead (Pb)**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **0.0312** lb/hour **1.16** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.00195 lb/ton steel** Reference: **BACT**	7. Emissions Method Code:
8. Calculation of Emissions: **160 ton/yr x 0.00195 lb/ton =0.312 lb/hr** **1,192,800 ton/yr x 0.00195 lb/ton / 2000 lb/ton = 1.16 tons/yr**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **Annual emissions based on 8,520 hours per year and monthly average of 140 tons/hr.**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.312 lb/hr**	4. Equivalent Allowable Emissions: **0.312** lb/hour **1.16** tons/year
5. Method of Compliance: **EPA Method 12**	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

G. VISIBLE EMISSIONS INFORMATION

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 3

1. Visible Emissions Subtype: **VE10**	2. Basis for Allowable Opacity: ☒ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: **10** % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **EPA Method 9**	
5. Visible Emissions Comment: **Dust handling system (dust captured by baghouse) NSPS, 40 CFR 60, Subpart AAa.**	

Visible Emissions Limitation: Visible Emissions Limitation 2 of 3

1. Visible Emissions Subtype: **VE99**	2. Basis for Allowable Opacity: ☒ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: **100** % Maximum Period of Excess Opacity Allowed: **60** min/hour	
4. Method of Compliance: **Best operational practices.**	
5. Visible Emissions Comment: **Excess emissions for startup, shutdown, malfunction not to exceed 2 hours per 24-hour period. Rule 62-210.700(1) and 40 CFR 60.11(c).**	

G. VISIBLE EMISSIONS INFORMATION

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 3 of 3

1. Visible Emissions Subtype: **VE03**	2. Basis for Allowable Opacity: ☒ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: **3** % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **Continuous Opacity Monitor or Method 9**	
6. Visible Emissions Comment: **Opacity from the exit of the control device. NSPS, 40 CFR 60, Subpart AAa.** **40 CFR 60.273a(c): A continuous monitoring system is not required on modular, multiple-stack, negative pressure, or positive pressure fabric filters if a VE of the control device is performed once per day when the furnace is operating in the melting and refining period.**	

Visible Emissions Limitation: Visible Emissions Limitation of

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: ☐ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: **6** % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **EPA Method 9**	
5. Visible Emissions Comment: **Opacity from the Meltshop Building NSPS, 40 CFR 60, Subpart AAa**	

H. CONTINUOUS MONITOR INFORMATION

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor _ of _

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	☐ Rule ☐ Other
4. Monitor Information... Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

Continuous Monitoring System: Continuous Monitor _ of _

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	☐ Rule ☐ Other
4. Monitor Information... Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☒ Attached, Document ID: **See Part 2** ☐ Previously Submitted, Date ____

2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID: ☒ Previously Submitted, Date **Title V Feb 04**

3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☒ Attached, Document ID: **See Part 2** ☐ Previously Submitted, Date ____

4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID: ☐ Previously Submitted, Date ____
   ☒ Not Applicable (construction application)

5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID: ☐ Previously Submitted, Date ____
   ☒ Not Applicable

6. Compliance Demonstration Reports/Records
   ☐ Attached, Document ID:
   Test Date(s)/Pollutant(s) Tested: ____
   ____
   ☐ Previously Submitted, Date: ____
   Test Date(s)/Pollutant(s) Tested: ____
   ____
   ☐ To be Submitted, Date (if known):_____
   Test Date(s)/Pollutant(s) Tested: ____
   ____
   ☒ Not Applicable
   Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.

7. Other Information Required by Rule or Statute
   ☐ Attached, Document ID: ____ ☒ Not Applicable

EMISSIONS UNIT INFORMATION
Section [1] of [2]
Electric Arc Furnace

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(6) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e))
   ☒ Attached, Document ID: **See Part 2** ☐ Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(5)(h)6., F.A.C., and Rule 62-212.500(4)(f), F.A.C.)
   ☒ Attached, Document ID: **See Part 2** ☐ Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only)
   ☒ Attached, Document ID: **See Part 2** ☐ Not Applicable

Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements
   ☐ Attached, Document ID: ☐ Not Applicable
2. Compliance Assurance Monitoring
   ☐ Attached, Document ID: ☐ Not Applicable
3. Alternative Methods of Operation
   ☐ Attached, Document ID: _____ ☐ Not Applicable
4. Alternative Modes of Operation (Emissions Trading)
   ☐ Attached, Document ID: _____ ☐ Not Applicable
5. Acid Rain Part Application
   - ☐ Certificate of Representation (EPA Form No. 7610-1)
     - ☐ Copy Attached, Document ID: _____
   - ☐ Acid Rain Part (Form No. 62-210.900(1)(a))
     - ☐ Attached, Document ID: _____
     - ☐ Previously Submitted, Date: _____
   - ☐ Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
     - ☐ Attached, Document ID: _____
     - ☐ Previously Submitted, Date: _____
   - ☐ New Unit Exemption (Form No. 62-210.900(1)(a)2.)
     - ☐ Attached, Document ID: _____
     - ☐ Previously Submitted, Date: _____
   - ☐ Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
     - ☐ Attached, Document ID: _____
     - ☐ Previously Submitted, Date: _____
   - ☐ Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
     - ☐ Attached, Document ID: _____
     - ☐ Previously Submitted, Date: _____
   - ☐ Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
     - ☐ Attached, Document ID: _____
     - ☐ Previously Submitted, Date: _____
   - ☐ Not Applicable

Additional Requirements Comment

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application for air permit. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application – Where this application is used to apply for both an air construction permit and a revised/renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. **The air construction permitting classification must be used to complete the Emissions Unit Information Section of this application for air permit.** A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air construction permitting and insignificant emissions units are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)

☒ The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

☐ The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)

☐ This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

☒ This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

☐ This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:
Billet Reheat Furnace

3. Emissions Unit Identification Number: **002**

4. Emissions Unit Status Code:	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
C	**Jan 05**		**3390**	☐ Yes ☒ No

9. Package Unit:
Manufacturer: **To be determined** Model Number:

10. Generator Nameplate Rating: MW

11. Emissions Unit Comment:

Gerdau proposes to shut down the current reheat furnace and replace it with a new unit. The new unit will be fired by natural gas and have the same maximum heat input as the existing unit, 222 MMBtu/hr.

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:

   Low NO_x Burners

2. Control Device or Method Code(s): **024**

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: **160 TPH (billet tons maximum daily average)**	
2. Maximum Production Rate: **1,200,000 billet tons per year**	
3. Maximum Heat Input Rate: **222** million Btu/hr	
4. Maximum Incineration Rate: pounds/hr tons/day	
5. Requested Maximum Operating Schedule:	
24 hours/day	**7** days/week
52 weeks/year	**8,500** hours/year
6. Operating Capacity/Schedule Comment:	

C. EMISSION POINT (STACK/VENT) INFORMATION
(Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: **002**	2. Emission Point Type Code: **1**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: **Reheat Furnace Stack**		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code: **V**	6. Stack Height: **66** feet	7. Exit Diameter: **5.8** feet
8. Exit Temperature: **480** °F	9. Actual Volumetric Flow Rate: **71,400** acfm	10. Water Vapor: %
11. Maximum Dry Standard Flow Rate: dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: East (km): North (km):	14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment:		

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Process/Fuel Type): **Primary metals, fuel fired equipment, process heaters, Natural Gas**		
2. Source Classification Code (SCC): **3-03-900-03**	3. SCC Units: **Million cubic feet**	
4. Maximum Hourly Rate: **0.2178**	5. Maximum Annual Rate: **1,852**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: **1,019**
10. Segment Comment: **Maximum hourly rate = 222.0 MMBtu/hr = 0.2178 MMCuft/hr. Maximum annual rate based on 8,500 hours.**		

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type): **Steel Production**		
2. Source Classification Code (SCC): **3-03-009-33**	3. SCC Units: **Billet tons**	
4. Maximum Hourly Rate: **160**	5. Maximum Annual Rate: **1,200,000**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM			EL
VOC			NS
CO			EL
NO_x	024		EL
SO_2			NS

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control: **%**

3. Potential Emissions: **1.67** lb/hour **7.1** tons/year	4. Synthetically Limited? ☒ Yes ☐ No

5. Range of Estimated Fugitive Emissions (as applicable):
to tons/year

6. Emission Factor: **0.0075 lb/MMBtu** Reference: **BACT**	7. Emissions Method Code: **0**

8. Calculation of Emissions:
222 MMBtu/hr x 0.0075 lb/MMBtu = 1.67 lb/hr

9. Pollutant Potential/Estimated Fugitive Emissions Comment:
Annual emissions based on 8,500 hours.

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **1.67 lb/hour**	4. Equivalent Allowable Emissions: **1.67** lb/hour **7.1** tons/year
5. Method of Compliance: **EPA Method 5**	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **CO**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **7.77** lb/hour **33.0** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.035 lb/MMBtu** Reference: **BACT**	7. Emissions Method Code: **0**
8. Calculation of Emissions: **222 MMBtu/hr x 0.035 lb/MMBtu = 7.77 lb/hr**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **Annual emissions based on 8,500 hours.**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.035 lb/MMBru**	4. Equivalent Allowable Emissions: **7.77** lb/hour **33.0** tons/year
5. Method of Compliance: **EPA Method 10; 24-hour average.**	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION – POTENTIAL/ESTIMATED FUGITIVE EMISSIONS

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: **NO_x**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **17.76** lb/hour **75.5** tons/year	4. Synthetically Limited? ☒ Yes ☐ No
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year	
6. Emission Factor: **0.08 lb/MMBtu** Reference: **BACT**	7. Emissions Method Code: **0**
8. Calculation of Emissions: **222 MMBtu/hr x 0.08 lb/MMBtu = 17.76 lb/hr**	
9. Pollutant Potential/Estimated Fugitive Emissions Comment: **Annual emissions based on 8,500 hours.**	

F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION - ALLOWABLE EMISSIONS

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: **0.08 lb/MMBtu**	4. Equivalent Allowable Emissions: **17.76** lb/hour **75.5** tons/year
5. Method of Compliance: **EPA Method 7E**	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

G. VISIBLE EMISSIONS INFORMATION

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 2

1. Visible Emissions Subtype: **VE15**	2. Basis for Allowable Opacity: ☐ Rule ☒ Other
3. Allowable Opacity: Normal Conditions: **15** % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **EPA Method 9**	
5. Visible Emissions Comment:	

Visible Emissions Limitation: Visible Emissions Limitation 2 of 2

1. Visible Emissions Subtype: **VE99**	2. Basis for Allowable Opacity: ☒ Rule ☐ Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: **100** % Maximum Period of Excess Opacity Allowed: **60** min/hour	
4. Method of Compliance: **Best operational practices.**	
5. Visible Emissions Comment: **Excess emissions for startup, shutdown, malfunction not to exceed 2 hours per 24-hour period. Rule 62-210.700(1) and 40 CFR 60.11(c).**	

H. CONTINUOUS MONITOR INFORMATION

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor _ of

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	☐ Rule ☐ Other
4. Monitor Information: Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

Continuous Monitoring System: Continuous Monitor _ of

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	☐ Rule ☐ Other
4. Monitor Information... Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

EMISSIONS UNIT INFORMATION
Section [2] of [2]
Billet Reheat Furnace

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☒ Attached, Document ID: **See Part 2** ☐ Previously Submitted, Date ____

2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID: ☒ Previously Submitted, Date **Title V Feb 04**

3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID: ____ ☐ Previously Submitted, Date ____

4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID: ☐ Previously Submitted, Date ____
   ☒ Not Applicable (construction application)

5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)
   ☐ Attached, Document ID: ☐ Previously Submitted, Date ____
   ☒ Not Applicable

6. Compliance Demonstration Reports/Records
   ☐ Attached, Document ID:
   Test Date(s)/Pollutant(s) Tested: ____
   ____
   ☐ Previously Submitted, Date: ____
   Test Date(s)/Pollutant(s) Tested: ____
   ____
   ☐ To be Submitted, Date (if known):____
   Test Date(s)/Pollutant(s) Tested: ____
   ____
   ☒ Not Applicable
   Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.

7. Other Information Required by Rule or Statute
   ☒ Attached, Document ID: **See Part 2** ☐ Not Applicable

EMISSIONS UNIT INFORMATION
Section [2] of [2]
Billet Reheat Furnace

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(6) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e))
   ☒ Attached, Document ID: **See Part 2** ☐ Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(5)(h)6., F.A.C., and Rule 62-212.500(4)(f), F.A.C.)
   ☒ Attached, Document ID: **See Part 2** ☐ Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only)
   ☒ Attached, Document ID: **See Part 2** ☐ Not Applicable

Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements
   ☐ Attached, Document ID: ☐ Not Applicable
2. Compliance Assurance Monitoring
   ☐ Attached, Document ID: _____ ☐ Not Applicable
3. Alternative Methods of Operation
   ☐ Attached, Document ID: _____ ☐ Not Applicable
4. Alternative Modes of Operation (Emissions Trading)
   ☐ Attached, Document ID: _____ ☐ Not Applicable
5. Acid Rain Part Application
   ☐ Certificate of Representation (EPA Form No. 7610-1)
      ☐ Copy Attached, Document ID: _____
   ☐ Acid Rain Part (Form No. 62-210.900(1)(a))
      ☐ Attached, Document ID: _____
      ☐ Previously Submitted, Date: _____
   ☐ Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
      ☐ Attached, Document ID: _____
      ☐ Previously Submitted, Date: _____
   ☐ New Unit Exemption (Form No. 62-210.900(1)(a)2.)
      ☐ Attached, Document ID: _____
      ☐ Previously Submitted, Date: _____
   ☐ Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
      ☐ Attached, Document ID: _____
      ☐ Previously Submitted, Date: _____
   ☐ Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
      ☐ Attached, Document ID: _____
      ☐ Previously Submitted, Date: _____
   ☐ Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
      ☐ Attached, Document ID: _____
      ☐ Previously Submitted, Date: _____
   ☐ Not Applicable

Additional Requirements Comment

ATTACHMENT C

Attachment C. Gerdau Ameristeel EAF Compliance Test Data

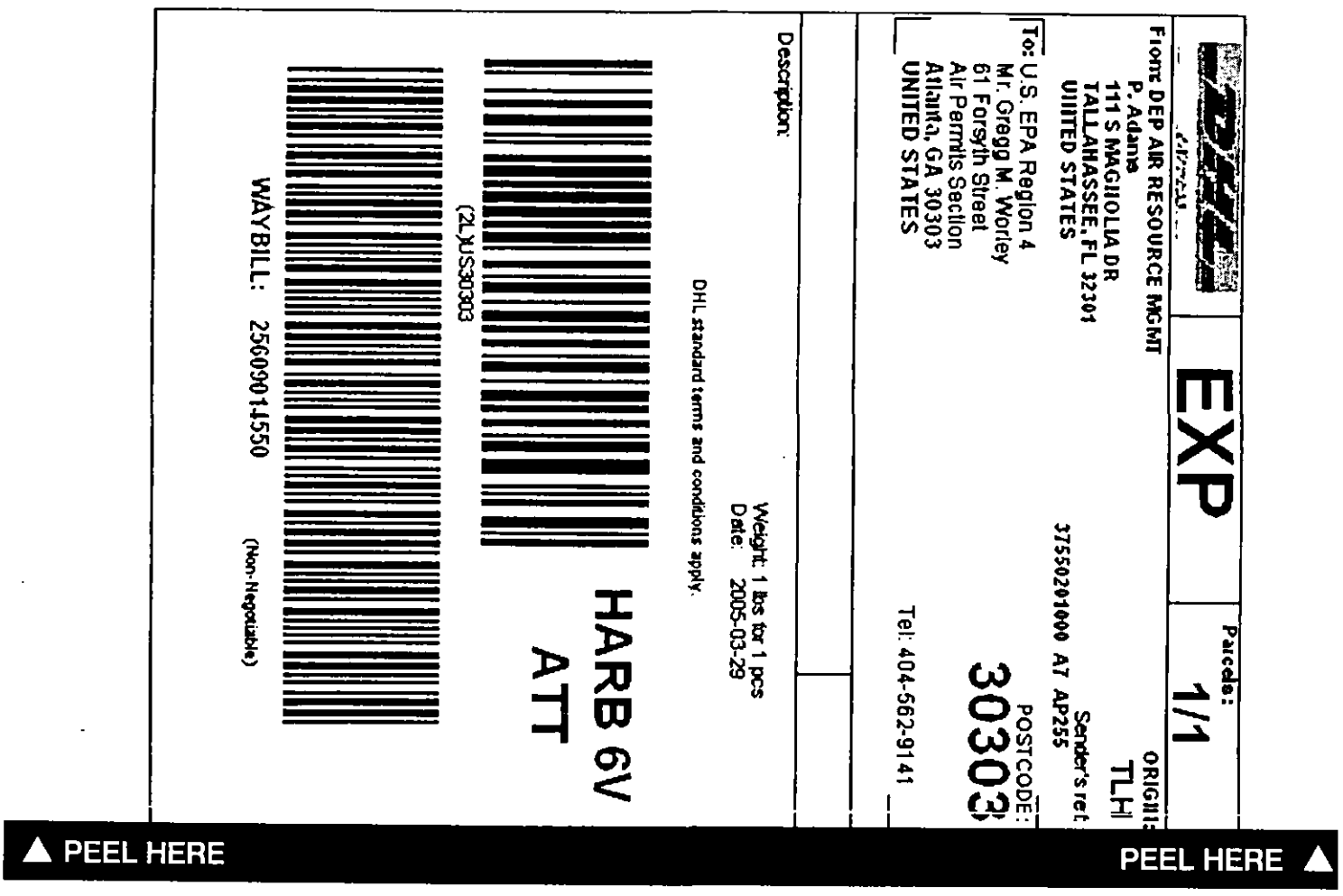
Year	Lead Emissions Total lbs/hr	Production TPH	Lead Emissions lbs/ton	Particulate Emissions gr/dscf
2004	0.18	92.73	0.0019	0.0014
2003	0.13	90.71	0.0014	0.0018
2002	0.06	92.4	0.0007	0.0005
2001	0.14	91.7	0.0015	0.0013
2000	0.14	83.13	0.0017	0.0013
1999	0.15	83.22	0.0018	0.0008
1998	0.31	74.65	0.0042	0.0017
1997	0.18	75.6	0.0024	0.0016
Min	0.06	74.65	0.0007	0.0005
Max	0.31	92.73	0.0042	0.0018
Average	0.16125	85.5175	0.00195	0.0013

Past Actual Emissions Based on 1997 - 2004 Average Emission Factor

Year	Production TPY	Lead EF lb/ton	Annual Lead lb/hr	Annual Lead TPY
2004	607051	0.00195	1183.749	0.592
2003	606940	0.00195	1183.533	0.592
		Average	1183.64	0.59

Future Potential Lead Emissions and PSD Applicability

Production TPY	Lead Emissions lbs/ton	Annual Lead	Lead TPY	Past Actual TPY	Net Inc. TPY
1192800	0.00195	2325.96	1.16	0.59	0.57



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Air Permits Section
61 Forsyth Street

Atlanta, GA 30303
UNITED STATES

Attention To: Mr. Gregg M. Worley
Phone#: 404-562-9141

Sent By: P. Adams
Phone#: 850-921-9505

Rate Estimate: 6
Protection: Not Required
Description:

Weight (lbs.): 1
Dimensions: 0 x 0 x 0

Ship Ref: 37550201000 A7 AP255
Service Level: Next Day 12:00 (Next business day by 12 PM)

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