Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

November 21, 2007

Mr. John Miller, Works Manager
Gerdau Ameristeel, Jacksonville Steel Mill
16770 Rebar Road
P.O. Box 518
Baldwin , FL 32234

Re: Gerdau Ameristeel, Jacksonville Steel Mill
Air Permit No. 0310157-009-AC (PSD-FL-349B)
Request for Extension to Submit Application for Title V Air Operation Permit

Dear Mr. Miller,

On November 6, 2007, Ms. Trina Vielhauer received your letter stating that the new electric arc furnace suffered a catastrophic failure on September 15th. The plant has not been able to conduct the required compliance testing. Your letter requests an extension of time to submit an application to revise the Title V air operation permit for the new electric arc furnace project.

The permit requires submittal of the application by at least March 24, 2008, but no later than 180 days after commencing operation. Please contact me to discuss this issue.

I called your office to discuss your letter, but had to leave voice messages. With regarding to the compliance testing issues, I recommended contacting the City of Jacksonville's Air Quality Branch in the Environmental Quality Division. You could speak to either Ronald Roberson or Richard Robinson at 904/630-4900.

If you have any questions regarding this letter, please contact me at 850/921-9536.

Sincerely,

Jeffery F. Koerner
Air Permitting North
Bureau of Air Regulation

cc: Mr. James Wold, Gerdau Ameristeel
Mr. Ronald Roberson, City of Jacksonville, EQD

Mitchell, Bruce

From: James Wold [Jwold@gerdauameristeel.com]
Sent: Tuesday, April 04, 2006 11:25 AM
To: Mitchell, Bruce; DLaRocca@golder.com
Cc: Ken_Kosky@golder.com
Subject: Re: FW: Public notice for Publication of Permit No.0310157-008-AC/PSD-FL-349A
Attachments: Affidavit.pdf

Bruce
Please find attached a copy of the affidavit for Publication of the public notice. As soon as I receive the hard copy in the mail I will Fedex a copy to you.

James P. Wold, CHMM
Environmental Specialist
Gerdau Ameristeel
P.O. Box 518
16770 Rebar Road
Baldwin, FL 32234
904-266-4261 Ext 133 Office
904-228-1962 Cell
904-266-0053 Fax

>>> "Larocca, David" <DLaRocca@golder.com> 04/03/06 5:32 PM >>>
Bruce,

Per my voice message(4/3/06) this email is to inform you that Permit No. 0310157-008-AC/PSD-FL-349A was public noticed in The Florida Times Union on 3/28/06. Jim Wold has been attempting to get a copy of the affidavit to submit to you as proof of publication. Jim will attempt to get a copy again tomorrow, the seventh day of public notice, and FAX it to your attention ASAP with a hard copy via overnight delivery.

See below for correspondence with The Florida Times Union regarding public notice. Please note that the actual published date was 3/28/06.

Thanks

David T. Larocca
Project Engineer

Golder Associates, Inc.
9 Monroe Parkway, Suite 270
Lake Oswego, OR USA 97035
Tel: (503) 607-1820
Fax: (503) 607-1825
E-Mail: dlarocca@golder.com
Web: www.golder ..com

From: Golden, Lear [mailto:lear.golden@jacksonville.com]
Sent: Friday, March 24, 2006 6:44 AM
To: James Wold
Subject: RE: Public notice for Publication

Hi James

The notice will be in on Monday, that's as soon as I can get it published. Thanks

Ms. Lear R. Golden

Advertising Account Rep.

The Florida Times Union

1 Riverside Ave.

Jacksonville, FL 32202

904-359-4111 Ext. 5365

1-800-472-6397 Ext 5365

Fax: 904-359-4180

lear.golden@jacksonville.com

*Did you know we have 18 other publications in which to run your ads? H Magazine, Skirt Magazine, Eco Latino, 9 Community News Papers, The Edge Shopper, The Georgia Times Union, Jax Air News, Mayport Mirror, The Kings Bay Periscope, The St. Augustine Record, and more. Let me know if you want more information.

safe:morris

From: James Wold [mailto:Jwold@gerdauameristeel.com]
Sent: Friday, March 24, 2006 9:22 AM
To: Golden, Lear
Subject: Public notice for Publication

Lear
Please find attached a public notice that I need to have published as soon as possible.
If you have any question please give me a call

Thanks

James P. Wold, CHMM
Environmental Specialist
Gerdau Ameristeel
P.O. Box 518
16770 Rebar Road
Baldwin, FL 32234
904-266-4261 Ext 133 Office

904-228-1962 Cell
904-266-0053 Fax

Facility ID No. 0310157

GERDAU AMERISTEEL

November 1, 2007

RECEIVED

NOV 06 2007

BUREAU OF AIR REGULATION

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

Environmental Quality Division
Air Quality
117 West Duval Street, Suite 225
Jacksonville, FL 32202

Attention: Ms. Trina L. Vielhauer, Chief, Bureau of Air Regulations

Attention: Mr. Ronald L. Roberson, Environmental Engineer

RE: Gerdau Ameristeel, Jacksonville Steel Mill –Title V Operation Permit Application Extension Request.

Dear Ms. Vielhauer & Mr. Roberson:

Gerdau Ameristeel (Gerdau) operates the existing Jacksonville Steel Mill near Baldwin in Duval County, Florida. The facility is a scrap iron and steel recycling (secondary metal production) plant that has been in operation since 1976. Gerdau has constructed and operated the new electric arc furnace (EAF) authorized in Construction Permit 0310157-009-AC/PSD-FL349B, issued 4/09/07. The new EAF's initial startup occurred May 27, 2007. Per Condition 14 of Permit 0310157-009-AC/PSD-FL349B, and Rules 62-4.030, 62-4.050, 62-4.330 and Chapter 62-213, F.A.C, the permittee shall apply for a Title V air operation permit at least 180 days prior to expiration of this permit (March 24, 2008), but no later than 180 days after commencing operation, whichever occurs first. To apply for a Title V air operation permit, the applicant shall submit the appropriate form, compliance test results, and such additional information as the Department may by law require. As Gerdau commenced operation of its EAF on May 27, 2007, an air operation permit application for the EAF is due to the agency by November 23, 2007.

Per Condition B.32 of Permit 0310157-009-AC/PSD-FL349B, and 40 CFR 60.8, the permittee is required, within 60 days after achieving the maximum production rate at which the EAF will be operated, but no later than 180 days after the initial startup of the EAF, to conduct the required performance tests to demonstrate compliance with the emission standards for the EAF. Thus, performance testing of the EAF also shall be performed by November 23, 2007.

On Saturday, September 15, 2007, Gerdau suffered a catastrophic failure of the transformer for the new EAF furnace. The transformer is a major component of the equipment required for the furnace to operate. The unit is approximately 15 feet high and weighs about 50 tons. The results of the initial investigation on the incident indicate the failure was the result of an electrical short circuit in the transformer. As a result of the failure, the transformer was removed from service, causing Gerdau to cease operating the new EAF and transition back to the operation of the old EAF furnace in the interim.

Upon inspection of the transformer, it was determined that it had to be removed from the site and sent via rail to a repair facility south of Tampa for further inspection. Depending on the result of this inspection, the transformer may need to be sent overseas to its place of manufacture (in Brazil). It is estimated that the repairs to the transformer will take from approximately 2 to 6 months to complete stateside. Repairs conducted overseas could take up to 12 months or more to complete. The purchase of a new transformer would result in delivery in approximately 12 to 24 months under current market conditions at a cost of approximately $3 to $4 million.

Jacksonville Steel Mill · 16770 Rebar Road · P. O. Box 518 · Baldwin, FL 32234 · (904) 266-4261 Fax (904) 266-4244

In the interim a spare transformer from Gerdau's Beaumont Texas facility will be brought in and installed to replace the damaged unit. It is anticipated that the spare transformer will arrive on site and be installed during the first part of November. This transformer is a 65 MVA transformer which is smaller than the existing transformer for the new EAF, rated at 95 MVA. The new EAF will not be able to achieve maximum permitted operating rates with the interim transformer.

Gerdau is currently planning to attempt to re-start the new EAF/melt shop during November with the interim transformer. Over the next few months the smaller interim transformer will be tested and balanced to determine whether it can function with the new EAF (testing includes determining adequate arc length, impedance with the transformer *etc.*).

Consistent with EPA's national stack testing guidance, Gerdau proposes to postpone performance testing on the new EAF until the original transformer is returned to service. EPA's guidance cites examples where an extension would be appropriate, several of which are applicable to Gerdau's Jacksonville facility. First, EPA's exception for "*force majeure* events" applies to Gerdau. Included within the definition of *force majeure* are acts of God, acts of war or terrorism, and *equipment failure* or safety hazard beyond the control of the facility. The failure of Gerdau's transformer is precisely the type of equipment failure anticipated by EPA. Second, EPA notes that an extension may be appropriate where a facility is unable to reach its maximum production rate within the start-up period. EPA correctly observes that rigid adherence to the original performance testing schedule in these circumstances will not yield data that is meaningful or helpful in determining compliance with underlying emissions standards. Here, testing of Gerdau's facility while using the interim 65 MVA transformer will not produce data that is predictive of the facilities' performance with the 95 MVA transformer. Gerdau's permit language does not preclude this result. Indeed, the permit mandates that testing "shall be conducted at a minimum production rate of 144 tons/hour."[1] As currently constituted, the Gerdau facility is unable to test at the prescribed production rate.

Gerdau requests the department's concurrence that the failure of the 95 MVA transformer is "*force majeure*" that will relieve Gerdau of the obligation to conduct its performance test or to amend its Title V operating permit until the transformer can be repaired and returned to service, or permanently replaced. Because interim operation of the 65 MVA transformer will not allow the facility to meet its maximum production rate, and may not work at all, Gerdau should not be required to conduct a performance test or seek an operating permit based upon use of the equipment.

If the department concurs in this request, Gerdau proposes to conduct the performance test within sixty days of achieving its permitted maximum production rate. Gerdau would then resubmit its Title V amendment within sixty days of the performance test. Further, Gerdau would provide periodic status reports. This extension of the Title V operating permit requirement is consistent with the Title V construction permit, which states that a Title V permit "is required for *regular* operation of the permitted emissions unit."[2] Since the facility will not be operating regularly until the transformer is repaired and brought back online, Gerdau believes that adding an additional layer to the permitting process would be unnecessary.

Gerdau Ameristeel appreciates the Department's timely consideration of this matter.

Sincerely,

John Miller
Works Manager

[1] See Condition B.6 of Permit 0310157-009-AC/PSD-FL349B, note 3, p. 8.
[2] See Condition A.14 of Permit 0310157-009-AC/PSD-FL349B, Title V Permit, p. 5

Do not hit the 'back' button on your browser, that will re-submit the query. Click HERE to go back.

Pollutant Test

This Ad hoc report allows query of the stack test report data, including the test dates, audit levels and actual measurements.
Data for this Report is One Day Old PRODUCTION Data.
Table or View: POLL_TEST_VW

Ad Hoc Reporting

Grouped by POLLUTANT

AIRS ID	OWNER/COMPANY NAME	EU ID	EU DESCRIPTION	TEST DATE	TEST ALLOWABLE	TEST ACTUAL	TEST ACTUAL UNIT CODE	ACTUAL PROCESS RATE	ACTUAL PRODUCTION RATE	ACTUAL HEAT INPUT RATE (MMBTU/HR)	COMMENTS
POLLUTANT CO											
0310157	GERDAU AMERISTEEL JACKSONVILLE MILL DIV.	1	Electric Arc Furnace	4/19/2007	3	2.42	09		96		
Records in POLLUTANT CO group: 1											
POLLUTANT NOX											
0310157	GERDAU AMERISTEEL JACKSONVILLE MILL DIV.	1	Electric Arc Furnace	4/19/2007	0.33	0.127	09		96		
Records in POLLUTANT NOX group: 1											
POLLUTANT PB											
0310157	GERDAU AMERISTEEL JACKSONVILLE MILL DIV.	1	Electric Arc Furnace	4/19/2007	0.7	0.013	PH		96		
Records in POLLUTANT PB group: 1											
POLLUTANT PM											
0310157	GERDAU AMERISTEEL JACKSONVILLE MILL DIV.	1	Electric Arc Furnace	4/19/2007	0.0034	0.0002	02		96		
Records in POLLUTANT PM group: 1											
POLLUTANT VOC											
0310157	GERDAU AMERISTEEL JACKSONVILLE MILL DIV.	1	Electric Arc Furnace	4/19/2007	0.295	0.054	09		96		
Records in POLLUTANT VOC group: 1											

A Grand Total of 5 Records were returned.

select AIRSID,OWNER,EU_NO,EU_DESCRIPTION,POLLUTANT,TEST_DATE,TEST_ALLOW,ACTUAL,UNIT,ACTUAL_PROCESS_RATE,ACTUAL_PRODUCTION_RATE,ACTUAL_HEAT_INPUT_RATE,COMMENTS from Arms_Snap.POLL_TEST_VW where 1 = 1 AND UPPER (AIRSID) = '0310157' AND EU_NO = 1 AND UPPER(EU_NO) = '1' AND TEST_DATE BETWEEN TO_DATE('01/01/2007','MM/DD/YYYY') AND TO_DATE(' 11/01/2007', 'MM/DD/YYYY') order by POLLUTANT,TEST_DATE

Revised: August 29, 2003

Gerdau Ameristeel
Jacksonville Steel Mill

Facility ID No. 0310157
Duval County

Air Construction Permit Project No. 0310157-009-AC
PSD Permit Project No. PSD-FL-349B
{Revises Permit Nos. 0310157-008-AC and PSD-FL-349A}

Permitting Authority:
State of Florida
Department of Environmental Protection
Division of Air Resource Management
Bureau of Air Regulation
Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
Telephone: 850/488-0114
Fax: 850/922-6979
Fax: 850/921-9533

Compliance Authority:
Environmental Resource Management Department
Environmental Quality Division
117 West Duval Street, Suite 225
Jacksonville, Florida 32202
Telephone: (904)630-4900
Fax: (904)630-3638

PERMITTEE:
Gerdau Ameristeel
16770 Rebar Road
Baldwin, FL 32234

Authorized Representative:
Mr. Donald Shumake, V.P. and General Manager

Permit No. 0310157-009-AC
PSD Permit No. PSD-FL-349B
Facility ID No. 0310157
Expiration Date: September 28, 2008
Project: Modernization Project
(Modification for Tires)

Facility Description

Gerdau Ameristeel operates the existing Jacksonville Steel Mill (SIC No. 3390), which is located at 16770 Rebar Road in Baldwin, Duval County, Florida. The plant is a secondary metal production facility that recycles scrap iron and steel. The map coordinates are: UTM Zone 17, 405.7 km East, 3350.2 km North; Latitude: 30° 16' 52" / Longitude: 81° 58' 50".

Project Description

On September 21, 2005, the Department of Environmental Protection (Department) issued Permit No. 0310157-007-AC (PSD-FL-349) to modernize the plant by constructing a new melt shop, a new electric arc furnace (EAF), a new ladle metallurgical furnace (LMF), and a new billet reheat furnace (BRF). The project was subject to preconstruction review in accordance with the Prevention of Significant Deterioration (PSD) of Air Quality. The PSD permit for the modernization project resulted in determinations of the Best Available Control Technology (BACT) for carbon monoxide (CO), nitrogen oxides (NO_X), particulate matter (PM/PM_{10}), sulfur dioxide (SO_2) and volatile organic compounds (VOC). On May 5, 2006, the Department issued Permit No. 0310157-008-AC/PSD-FL-349A to modify the PSD permit by authorizing construction of a new gas-fired BRF to allow for the simultaneous processing of steel billets. The existing BRF will be dedicated to producing rebar and the new BRF will be dedicated to producing wire or rod.

For this new PSD permit modification, the Department authorizes the use of shredded or whole tires as a source of carbon in the EAF and as an alternative to petroleum coke. The use of tires as a carbon source in steel production has been proven within the industry. After completing construction on the new EAF, this permit modification requires separate sets of performance tests for petroleum coke and tires. The permittee is required to demonstrate compliance with all permit limits associated with the new EAF under both scenarios.

Referenced attachments made a part of this permit:
Appendix SS-1, Stack Sampling Facilities
Table 297.310-1, Calibration Schedule
Attachment, 40 CFR 60, Subpart A
Figure 1, Summary Report of Gaseous and Opacity Excess Emissions and Monitoring Systems Performance Report

Joseph Kahn, Director
Division of Air Resource Management

(Date)

JK/tlv/jk/bm

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does no relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permitted to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

a. Have access to and copy any record that must be kept under the conditions of the permit;
b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

a. A description of and cause of non-compliance; and,
b. The period of non-compliance, including dates and times; or, if not corrected, the anticipated time the non- compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

GENERAL CONDITIONS:

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:
    (x) Determination of Best Available Control Technology (BACT)
    (x) Determination of Prevention of Significant Deterioration (PSD)
    (x) Compliance with New Source Performance Standards (NSPS)
    ( ) Compliance with National Emission Standards for Hazardous Air Pollutants/ Maximum Available Control Technology (MACT)

14. The permittee shall comply with the following:
    a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
    b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
    c. Records of monitoring information shall include:
        - the date, exact place, and time of sampling or measurements;
        - the person responsible for performing the sampling or measurement;
        - the dates analyses were performed;
        - the person responsible for performing the analyses;
        - the analytical techniques or methods used; and
        - the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SPECIFIC CONDITIONS:

A. The following specific conditions apply facility-wide:

1. General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. The permittee shall not cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor.
[Rule 62-296.320(2), F.A.C.; and, Rule 2.1001, JEPB]

2. General Particulate Emission Limiting Standards. General Visible Emissions Standard.
Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than 20 percent opacity in accordance with Rule 62-296.320(4)(b)1., F.A.C., and Rule 2.1001, JEPB. EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C., and Rule 2.1101, JEPB. Testing shall be required upon request of the Department.
[Rule 62-296.320(4)(b)1., F.A.C.; and, Rule 2.1101, JEPB]

3. General Pollutant Emission Limiting Standards. Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload, or use in any installation, VOC or OS without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.
[Rule 62-296.320(1)(a), F.A.C.; and, Rule 2.1001, JEPB]

4. Insignificant Emissions Units and/or Activities. Appendix I-1, List of Insignificant Emissions Units and/or Activities, is part of this permit.
[Rules 62-213.440(1), 62-213.430(6), and 62-4.040(1)(b), F.A.C.; and, Rules 2.501 and 2.1301, JEPB]

5. 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, but not limited to, 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]

6. The permittee shall submit all compliance related notifications and reports required of this permit to:

Environmental Resource Management Department
Environmental Quality Division
117 West Duval Street, Suite 225
Jacksonville, FL 32202
Telephone: 904/630-4900
Fax: 904/630-3638

7. Any reports, data, notifications, certifications, and requests required to be sent to the United States Environmental Protection Agency should be sent to:

United States Environmental Protection Agency
Region 4
Air, Pesticides & Toxics Management Division
Air & EPCRA Enforcement Branch, Air Enforcement Section
61 Forsyth Street
Atlanta, GA 30303-8960
Telephone: (404) 562-9155
Fax: (404) 562-9163

8. The facility shall be subject to the City of Jacksonville Ordinance Code, Title X, Chapter 360 [Environmental Regulation], Chapter 362 [Air and Water Pollution], Chapter 376 [Odor Control], and JEPB Rule 1 [Final Rules with Respect to Organization, Procedure, and Practice].

9. The facility shall be subject to JEPB Rule 2, Parts I through VII, and Parts IX through XIII.

10. Construction and Expiration: The permit expiration date includes sufficient time to complete construction, perform required testing, submit test reports, and submit an application for a Title V operation permit to the Department. Approval to construct shall become invalid for any of the following reasons: construction is not commenced within 18 months after issuance of this permit; construction is discontinued for a period of 18 months or more; or construction is not completed within a reasonable time. The Department may extend the 18-month period upon a satisfactory showing that an extension is justified. In conjunction with an extension of the 18-month period to commence or continue construction (or to construct the project in phases), the Department may require the permittee to demonstrate the adequacy of any previous determination of Best Available Control Technology (BACT) for emissions units regulated by the project. For good cause, the permittee may request that this PSD air construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation at least sixty (60) days prior to the expiration of this permit.
[Rules 62-4.070(4), 62-4.080, 62-210.300(1), and 62-212.400(6)(b), F.A.C.; 40 CFR 52.21(r)(2); 40 CFR 51.166(j)(4)]

11. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time.
[Rule 62-4.080, F.A.C.]

12. Relaxations of Restrictions on Pollutant Emitting Capacity. If a previously permitted facility or modification becomes a facility or modification which would be subject to the preconstruction review requirements of this rule if it were a proposed new facility or modification solely by virtue of a relaxation in any federally enforceable limitation on the capacity of the facility or modification to emit a pollutant (such as a restriction on hours of operation), which limitation was established after August 7,1980, then at the time of such relaxation the preconstruction review requirements of this rule shall apply to the facility or modification as though construction had not yet commenced on it.
[Rule 62-212.400(2)(g), F.A.C.]

13. Modifications: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification.
[Rule 62-4.030 and Chapters 62-210 and 62-212, F.A.C.]

14. Title V Air Operation Permit: This permit authorizes construction of the permitted emissions units and initial operation to determine compliance with Department rules. A Title V air operation permit is required for regular operation of the permitted emissions units. The permittee shall apply for a Title V air operation permit at least 180 days (**March 24, 2008**) prior to expiration of this permit, but no later than 180 days after commencing operation, whichever occurs first. To apply for a Title V air operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the ERMD-EQD office.
[Rules 62-4.030, 62-4.050, 62-4.220 and Chapter 62-213, F.A.C.]

B. New Melt Shop Building and EAF (Electric Arc Furnace) Operations and New Continuous Caster Building and LMF (Ladle Metallurgical Furnace) Operations with a New No. 5 Baghouse Control System Serving Its Dust-Handling System and the EAF and LMF Operations: Emissions Units Nos. 008 and 010.

Emissions Unit Descriptions: A new Melt Shop Building will be built along with a new electric arc furnace (EAF) for processing recycled scrap-based steel; and, a new Continuous Caster Building will be built to include the continuous caster operations and the new LMF operations, which will be used for refining the tapped (liquid) steel received from the EAF. Emissions of particulate matter (both PM and PM_{10}) and visible emissions from the EAF's and LMF's operations will be controlled by a new No. 5 baghouse control system. The new No. 5 baghouse control system will also be used to control its associated dust-handling system. Heat will be provided by natural gas fired through low-NO_x oxy-fuel sidewall burners (LNBs) and with electric arcs from carbon electrodes.

Emissions Control: Proper engineering design; firing of natural gas; low-NO_x oxy-fuel sidewall burners (LNBs); low excess air; good combustion practice; a new baghouse control system, designated as Baghouse No. 5, and associated canopy hoods with duct work; Direct-Shell Evacuation Control (DEC) systems (EAF's and LMF's); and, usage of a scrap management plan.

Definitions: 40 CFR 60, Subpart AAa.
a. Electric arc furnace (EAF): means a furnace that produces molten steel and heats the charge materials with electric arcs from carbon electrodes; and, an EAF shall consist of the furnace shell and roof and the transformer.
b. Ladle metallurgical furnace (LMF): means an EAF that does the final refining of the molten steel that it receives from the EAF.
c. Charge: means the addition of iron and steel scrap or other materials into the top of an electric arc furnace.
d. Heat cycle: means the period beginning when scrap is charged to an empty EAF and ending when the EAF tap is completed.
e. Tap: means the pouring of molten steel from an EAF.
f. Dust-handling system: means the equipment used to handle particulate matter collected by the control device for an EAF and consists of the control device dust hoppers, the dust-conveying equipment, any central dust storage equipment, the dust-treating equipment (e.g., pug mill, pelletizer), dust transfer equipment (from storage to truck), and any secondary control devices used with the dust transfer equipment.
g. Refining: means that phase of the steel production cycle during which undesirable elements are removed from the molten steel and alloys are added to reach the final metal chemistry.
h. Direct-shell evacuation control system (DEC system): means a system that maintains a negative pressure within the EAF (and LMF) above the slag or metal and ducts emissions to the control device.
i. Bag leak detection system: means a system that is capable of continuously monitoring relative particulate matter (dust) loadings in the exhaust of a baghouse to detect bag leaks and other conditions that result in increases in particulate loadings. A bag leak detection system includes, but is not limited to, an instrument that operates on triboelectric, electrodynamic, light scattering, light transmittance, or other effect to continuously monitor relative particulate matter loadings.

The following specific conditions apply to the emission units described above.

General.

B.0. Post-Construction.
a. The installation of an EAF, a LMF, a continuous caster, DECs, canopy hoods and a baghouse control system No. 5., was authorized in air construction permit (AC), No. 0310157-007-AC/PSD-FL-349, issued September 21, 2005. The construction shall be in accordance with the application and associated documents provided to the Permitting Authority for the issuance of that AC. Any changes to the project that are contrary to those documents and permit shall be reported in writing to the Permitting Authority by the P.E. of Record.
[Rules 62-4.070(3) and 62-4.160(2), F.A.C.]

b. The existing EAF shall be removed from service upon commissioning and establishing normal operation of the new EAF and the initial performance tests have been conducted satisfactorily pursuant to 40 CFR 60.8 and the conditions of this permit.

The existing LMF shall be removed from service upon commissioning and establishing normal operation of the new LMF and the initial performance tests have been conducted satisfactorily pursuant to 40 CFR 60.8 and the conditions of this permit. A letter shall be sent to the City of Jacksonville's Environmental Resource Management Department – Environmental Quality Division (ERMD-EQD) and the Department's Northeast District (NED) offices upon completion of this specific condition.
[Rules 62-4.070(3) and 62-212.400(5) & (6), F.A.C.; and, 0310157-007-AC/PSD-FL-349]

B.1.a. 40 CFR 60, Subpart AAa, Standards of Performance for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels, shall apply to the emissions units described herein.
b. 40 CFR 60, Subpart A, General Provisions, shall apply to the emissions units described herein.
[Rule 62-204.800, F.A.C.; Rule 2.201, JEPB; and, 40 CFR 60, Subparts A and AAa]

B.2. The owner and operator shall abide by the scrap management plan attached to the permit (see Gerdau Ameristeel: Scrap Receiving Policy and Procedures). The owner or operator shall update this plan as necessary through the Title V air operation permit approval process.
[Rule 62-4.070(3), F.A.C.]

Essential Potential to Emit (PTE) Parameters.

B.3. The maximum heat inputs shall not exceed the following :
a. EAF: 34.6 x 10^6 Btu per hour firing natural gas.
b. LMF: 34.6 x 10^6 Btu per hour firing natural gas.
[Rules 62-210.200(PTE) and 62-212.400(5), F.A.C.; Rule 2.401, JEPB; and, 0310157-007-AC/PSD-FL-349]

B.4. Permitted Capacity. The production rates shall not exceed any of the following:
a. EAF:
   1. 176 tons of raw materials (scrap steel, fluxes, alloys, carbon source (petroleum coke or tires), etc.) per hour, maximum daily average. (Note: The carbon source represents approximately 1% of the total charge.)
   2. 160 tons of tapped steel (liquid) per hour, maximum daily average.
   3. 140 billet tons of tapped steel (liquid) per hour, maximum monthly average.
   4. 1,192,800 tons of tapped steel (liquid) during any consecutive 12 months.
b. LMF:
   1. 160 tons of tapped steel (liquid) per hour, maximum daily average.
[Rules 62-210.200(PTE) and 62-212.400(5), F.A.C.; Rule 2.401, JEPB; and, 0310157-007-AC/PSD-FL-349]

B.5. The allowable hours of operation shall not exceed the following:
a. EAF: 8,520 hours per year.
b. LMF: 8,520 hours per year.
[Rules 62-210.200(PTE) and 62-212.400(5), F.A.C.; Rule 2.401, JEPB; and, 0310157-007-AC/PSD-FL-349]

Emission Limitations and Standards.

B.6. Best Available Control Technology Determination.

The following table shows the BACT emission limits, control technology, and test methods determined by the Department for the new EAF and LMF operations:

Pollutant	Emission Limits [1]	Control Technology	Test Methods [2 and 3]
PM as PM/PM_{10}	0.0018 gr/dscf	Direct-shell evacuation control (DEC) systems (fourth hole vent with O_2); and, canopy hoods and new No. 5 baghouse control system	EPA Reference Method 5 40 CFR 60, Appendix A
NO_x	0.33 lb/ton tapped steel	Low-NO_x oxy-fuel sidewall burners (LNBs) and furnace pressure control (good combustion practices – low excess air by the DEC systems)	EPA Reference Method 7, 7A or 7E; 40 CFR 60, Appendix A
SO_2	0.2 lb/ton tapped steel	Scrap management plan and supplemental firing of natural gas	EPA Reference Method 8 40 CFR 60, Appendix A
CO	2.0 lbs/ton tapped steel	DEC systems; and, proper design, operation and control of the combustion process	EPA Reference Method 10 40 CFR 60, Appendix A
VOCs	0.13 lb/ton tapped steel	DEC systems; proper design, operation and control of the combustion process; and, usage of a scrap management plan	EPA Reference Method 18, 25 or 25A 40 CFR 60, Appendix A
Visible Emissions	<3% Opacity: No. 5 baghouse control system <6% Opacity: Melt Shop Roof and Continuous Caster Building Roof	No. 5 baghouse control system and associated roof canopy hoods; and, usage of the associated DEC systems	EPA Reference Method 9 40 CFR 60, Appendix A
Visible Emissions	<10% Opacity: Miscellaneous pickup and transfer points along the dust-handling system for the No. 5 baghouse control system	No. 5 baghouse control system	EPA Reference Method 9 40 CFR 60, Appendix A

[1] Unless otherwise specified, the averaging time for each limit shall be in accordance with the test method.
[2] For the EAF and LMF operations, the sampling time and sample volume of each PM test run shall be at least 4 hours and 160 dscf, respectively, and the sampling time shall include an integral number of heats. Compliance with the CO standard shall be based on the average of three (3) 3-hour test runs.
[Rule 62-204.800, F.A.C., and 40 CFR 60.275a(e)(1)]
[3] Compliance tests on the EAF and LMF operations shall be conducted at a minimum production rate of 144 tons per hour (TPH) tapped steel per Rules 62-297.310(2) & (2)(b), F.A.C. [160 TPH x 90% = 144 TPH tapped steel]

B.7. Particulate matter (PM/PM_{10}) emissions shall not exceed 0.0018 grains per dry standard cubic foot (gr/dscf), 12.88 lbs/hr, and 54.9 TPY from the combined operations of the EAF and LMF, including the dust-handling system, based on the average of three (3) test runs conducted in accordance with EPA Reference Method 5 (as described in 40 CFR 60, Appendix A) and consistent with the requirements of 40 CFR 60.275a(e)(1). (See specific condition **B.33.**)
[Rule 62-212.400(BACT), F.A.C.; Rule 2.401, JEPB; and, 0310157-007-AC/PSD-FL-349]

B.8. Visible Emissions (VE).
a. VE from the control device, the No. 5 baghouse control system, shall be less than 3 percent opacity.
[40 CFR 60.272a(a)(2); Rule 62-212.400(BACT), F.A.C.; Rule 2.401, JEPB; and, 0310157-007-AC/PSD-FL-349]

b. VE from any opening in the melt shop building or continuous caster building shall be less than 6 percent opacity.
[40 CFR 60.272a(a)(3); Rule 62-212.400(BACT), F.A.C.; Rule 2.401, JEPB; and, 0310157-007-AC/PSD-FL-349]

c. VE from any pickup points along the dust-handling system connected with the No. 5 baghouse control system shall be less than 10 percent opacity. Such points include the baghouse hoppers, enclosed screw conveyors or enclosed chain/paddle conveyors, dust silo building, and the enclosed loading building for the truck and rail load-out operations.
[40 CFR 60.272a(b); Rule 62-212.400(BACT), F.A.C.; Rule 2.401, JEPB; and, 0310157-007-AC/PSD-FL-349]

B.9. Carbon monoxide (CO) emissions shall not exceed 2.0 lbs/ton of steel, 320.0 pounds per hour, and 1,192.80 TPY from the combined operations of the EAF and LMF, based on the average of three (3) 3-hour test runs conducted in accordance with EPA Reference Method 10 (as described in 40 CFR 60, Appendix A).
[Rule 62-212.400(BACT), F.A.C.; Rule 2.401, JEPB; and, 0310157-007-AC/PSD-FL-349]

B.10. Nitrogen oxides (NO_x) emissions shall not exceed 0.33 lb/ton of steel, 52.8 lbs/hr, and 196.8 TPY from the combined operations of the EAF and LMF, based on the average of three (3) test runs conducted in accordance with EPA Reference Method 7, 7A or 7E (as described in 40 CFR 60, Appendix A).
[Rule 62-212.400(BACT), F.A.C.; Rule 2.401, JEPB; and, 0310157-007-AC/PSD-FL-349]

B.11. Volatile organic compounds (VOC) emissions shall not exceed 0.13 lb/ton of steel, 20.8 lbs/hr, and 77.5 TPY from the combined operations of the EAF and LMF, based on the average of three (3) test runs conducted in accordance with EPA Reference Method 18, 25, or 25A (as described in 40 CFR 60, Appendix A).
[Rule 62-212.400(1), F.A.C.; Rule 2.401, JEPB; and, 0310157-007-AC/PSD-FL-349]

B.12. Lead (Pb) emissions shall not exceed 0.00195 lb/ton of steel produced, 0.312 lb/hr, and 1.163 TPY from the combined operations of the EAF and LMF, based on the average of three (3) test runs conducted in accordance with EPA Reference Method 12 (as described in 40 CFR 60, Appendix A).
[Rules 62-4.070(3) and 62-212.400(1), (2)(d)4. and (2)(g) , F.A.C.; Rule 2.401, JEPB; and, 0310157-007-AC/PSD-FL-349]

Excess Emissions

B.13. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.
[Rule 62-210.700(1), F.A.C.; and, Part III, Rule 2.301, JEPB]

B.14. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited.
[Rule 62-210.700(4), F.A.C.; and, Part III, Rule 2.301, JEPB]

Emissions Monitoring.

B.15. Observations of the opacity of the visible emissions from the control device shall be performed by a certified visible emission observer in accordance with 40 CFR 60.273a(c). Visible emission observations shall be conducted at least once per day for at least three 6-minute periods when the furnace is operating in the melting and refining period. All visible emission observations shall be conducted in accordance with EPA Reference Method 9. If visible emissions occur from more than one point, the opacity shall be recorded for any points where visible emissions are observed. Where it is possible to determine that a number of visible emission sites relate to only one incident of the visible emission, only one set of three 6-minute observations will be required. In that case, the EPA Reference Method 9 observations must be made for the site of highest opacity that directly relates to the cause (or location) of visible emissions observed during a single incident. Records shall be maintained of any 6-minute average that is in excess of the emission limit specified in 40 CFR 60.272a(a). "Furnace" means the EAF (melting) and the LMF (refining).
[40 CFR 60.273a(c); and, Rule 2.201, JEPB]

B.16. A furnace static pressure monitoring device is not required on the EAF nor the LMF because each is equipped with a DEC system. Observations of shop opacity shall be performed by a certified visible emission observer as follows: Shop opacity observations shall be conducted at least once per day when the furnace is operating in the meltdown and refining period. Shop opacity shall be determined as the arithmetic average of 24 consecutive 15-second opacity observations of emissions from the shop taken in accordance with EPA Reference Method 9. Shop opacity shall be recorded for any point(s) where visible emissions are observed. Where it is possible to determine that a number of visible emission sites relate to only one incident of

visible emissions, only one observation of shop opacity will be required. In this case, the shop opacity observations must be made for the site of highest opacity that directly relates to the cause (or location) of visible emissions observed during a single incident. "Shop" shall include both the melt shop building and the continuous caster building; and, "furnace" means the EAF (melting) and the LMF (refining).
[40 CFR 60.273a(d); and, Rule 2.201, JEPB]

B.17. A bag leak detection system must be installed and continuously operated on the No. 5 Baghouse control system because the owner or operator elected not to install and operate a continuous opacity monitoring system as provided for under 40 CFR 60.273a(c). In addition, the owner or operator shall meet the visible emissions observation requirements in 40 CFR 60.273a(c) (see specific condition **B.15.**). The bag leak detection system must meet the specifications and requirements of 40 CFR 60.273a(e)(1) through (8).
(1) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 1 milligram per actual cubic meter (0.00044 grains per actual cubic foot) or less.
(2) The bag leak detection system sensor must provide output of relative particulate matter loadings and the owner or operator shall continuously record the output from the bag leak detection system using electronic or other means (e.g., using a strip chart recorder or a data logger.)
(3) The bag leak detection system must be equipped with an alarm system that will sound when an increase in relative particulate loading is detected over the alarm set point established according to 40 CFR 60.273a(e)(4), and the alarm must be located such that it can be heard by the appropriate plant personnel.
(4) For each bag leak detection system required by 40 CFR 60.273a(e), the owner or operator shall develop and submit to the permitting authority, for approval, a site-specific monitoring plan that addresses the items identified in paragraphs (i) through (v) of 40 CFR 60.273a(e)(4). For each bag leak detection system that operates based on the triboelectric effect, the monitoring plan shall be consistent with the recommendations contained in the U.S. Environmental Protection Agency guidance document ``Fabric Filter Bag Leak Detection Guidance" (EPA-454/R-98-015). The owner or operator shall operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. The plan shall describe the following:
(i) Installation of the bag leak detection system;
(ii) Initial and periodic adjustment of the bag leak detection system including how the alarm set-point will be established;
(iii) Operation of the bag leak detection system including quality assurance procedures;
(iv) How the bag leak detection system will be maintained including a routine maintenance schedule and spare parts inventory list; and,
(v) How the bag leak detection system output shall be recorded and stored.
(5) The initial adjustment of the system shall, at a minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points and the alarm delay time (if applicable).
(6) Following initial adjustment, the owner or operator shall not adjust the averaging period, alarm set point, or alarm delay time without approval from the permitting authority except as provided for in 40 CFR 60.273a(e)(6)(i) and (ii).
(i) Once per quarter, the owner or operator may adjust the sensitivity of the bag leak detection system to account for seasonal effects including temperature and humidity according to the procedures identified in the site-specific monitoring plan required under 40 CFR 60.273a(e)(4).
(ii) If opacities greater than zero percent are observed over four consecutive 15-second observations during the daily opacity observations required under 40 CFR 60.273a(c) and the alarm on the bag leak detection system does not sound, the owner or operator shall lower the alarm set point on the bag leak detection system to a point where the alarm would have sounded during the period when the opacity observations were made.
(7) For negative pressure, induced air baghouses, and positive pressure baghouses that are discharged to the atmosphere through a stack, the bag leak detection sensor must be installed downstream of the baghouse and upstream of any wet scrubber.
(8) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.
[40 CFR 60.273a(e)(1) thru (8)]

B.18. For the bag leak detection system installed according to 40 CFR 60.273a(e), the owner or operator shall initiate procedures to determine the cause of all alarms within 1 hour of an alarm. Except as provided for under 40 CFR 60.273a(g), the cause of the alarm must be alleviated within 3 hours of the time the alarm occurred by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to, the following:
(1) Inspecting the baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in particulate emissions;
(2) Sealing off defective bags or filter media;
(3) Replacing defective bags or filter media or otherwise repairing the control device;

(4) Sealing off a defective baghouse compartment;
(5) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system; and,
(6) Shutting down the process producing the particulate emissions.
[40 CFR 60.273a(f)]

B.19. In approving the site-specific monitoring plan required in 40 CFR 60.273a(e)(4), the compliance authority may allow owners or operators more than 3 hours to alleviate specific conditions that cause an alarm if the owner or operator identifies the condition that could lead to an alarm in the monitoring plan, adequately explains why it is not feasible to alleviate the condition within 3 hours of the time the alarm occurred, and demonstrates that the requested additional time will ensure alleviation of the condition as expeditiously as practicable.
[40 CFR 60.273a(g)]

Monitoring of Operations.

B.20. Determination of Process Variables.
(a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
(b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.
[Rule 62-297.310(5), F.A.C.; and, Part XI, Rule 2.1001, JEPB]

B.21. The owner or operator shall maintain records of the following information:
(1) All data obtained under 40 CFR 60.274a(b); and,
(2) All monthly operational status inspections performed under 40 CFR 60.274a(c).
[40 CFR 60.274a(a)]

B.22. Except as provided under 40 CFR 60.274a(e), the owner or operator shall check and record on a once-per-shift basis the furnace static pressure (if DEC system(s) is/are in use, and a furnace static pressure gauge is installed according to 40 CFR 60.274a(f)) and either: check and record the control system fan motor amperes and damper position on a once-per-shift basis; install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate through each separately ducted hood; or install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate at the control device inlet and check and record damper positions on a once-per-shift basis. The monitoring device(s) may be installed in any appropriate location in the exhaust duct such that reproducible flow rate monitoring will result. The flow rate monitoring device(s) shall have an accuracy of ±10 percent over its normal operating range and shall be calibrated according to the manufacturer's instructions. The compliance authority may require the owner or operator to demonstrate the accuracy of the monitoring device(s) relative to EPA Reference Methods 1 and 2 of Appendix A, 40 CFR 60. "Furnace" means both the EAF and the LMF.
[40 CFR 60.274a(b)]

B.23. When the owner or operator of an affected facility is required to demonstrate compliance with the standards under 40 CFR 60.272a(a)(3) and at any other time that the compliance authority may require (under section 114 of the CAA, as amended) either: the control system fan motor amperes and all damper positions, the volumetric flow rate through each separately ducted hood, or the volumetric flow rate at the control device inlet and all damper positions shall be determined during all periods in which a hood is operated for the purpose of capturing emissions from the affected facility subject to 40 CFR 60.274a(b). The owner or operator may petition the permitting authority for reestablishment of these parameters whenever the owner or operator can demonstrate to the permitting authority's satisfaction that the affected facility operating conditions upon which the parameters were previously established are no longer applicable. The values of these parameters as determined during the most recent demonstration of compliance shall be maintained at the appropriate level for each applicable period. Operation at other than baseline values may be subject to the requirements of 40 CFR 60.276a(c).
[40 CFR 60.274a(c)]

B.24. Except as provided under 40 CFR 60.274a(e), the owner or operator shall perform monthly operational status inspections of the equipment that is important to the performance of the total capture system (i.e., pressure sensors, dampers, and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in duct-work or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed.
[40 CFR 60.274a(d)]

B.25. The owner or operator may petition the permitting authority to approve any alternative to either the monitoring requirements specified in 40 CFR 60.274a(b) or the monthly operational status inspections specified in 40 CFR 60.274a(d) if the alternative will provide a continuous record of operation of each emission capture system.
[40 CFR 60.274a(e)]

B.26. Except as provided for under 40 CFR 60.273a(d), if emissions during any phase of the heat time are controlled by the use of a DEC system, the owner or operator shall install, calibrate, and maintain a monitoring device that allows the pressure in the free space inside the EAF and the LMF to be monitored. The pressure shall be recorded as 15-minute integrated averages. The monitoring device may be installed in any appropriate location in the EAF and the LMF or their DEC duct prior to the introduction of ambient air such that reproducible results will be obtained. The pressure monitoring device shall have an accuracy of ±5 mm of water gauge over its normal operating range and shall be calibrated according to the manufacturer's instructions.
[40 CFR 60.274a(f)]

B.27. Except as provided for under 40 CFR 60.273a(d), when the owner or operator of an EAF and a LMF controlled by a DEC is required to demonstrate compliance with the standard under 40 CFR 60.272a(a)(3), and at any other time the Administrator may require (under section 114 of the Clean Air Act, as amended), the pressure in the free space inside the furnace shall be determined during the meltdown and refining period(s) using the monitoring device required under 40 CFR 60.274a(f). The owner or operator may petition the permitting authority for reestablishment of the pressure whenever the owner or operator can demonstrate to the permitting authority's satisfaction that the EAF and the LMF operating conditions upon which the pressures were previously established are no longer applicable. The pressure determined during the most recent demonstration of compliance shall be maintained at all times when the EAF and/or the LMF is operating in a meltdown and refining period. Operation at higher pressures may be considered by the compliance authority to be unacceptable operation and maintenance of the affected facility.
[40 CFR 60.274a(g)]

B.28. During any performance test required under 40 CFR 60.8, and for any report thereof required by 40 CFR 60.276a(f), or to determine compliance with 40 CFR 60.272a(a)(3), the owner or operator shall monitor the following information for all heats covered by the test:
(1) Charge weights and materials, and tap weights and materials;
(2) Heat times, including start and stop times, and a log of process operation, including periods of no operation during testing and the pressure inside an EAF and a LMF when direct-shell evacuation control systems are used;
(3) Control device operation log; and,
(4) Continuous opacity monitor or EPA Reference Method 9 data.
[40 CFR 60.274a(h)]

Test Methods and Procedures

B.29. During performance tests required in 40 CFR 60.8, the owner or operator shall not add gaseous diluents to the effluent gas stream after the fabric in any pressurized fabric filter collector, unless the amount of dilution is separately determined and considered in the determination of emissions.
[40 CFR 60.275a(a)]

B.30. When emissions from any EAF and/or LMF are combined with emissions from facilities not subject to the provisions of 40 CFR 60, Subpart AAa, but controlled by a common capture system and control device, the owner or operator shall use either or both of the following procedures during a performance test (see also 40 CFR 60.276a(e)):
(1) Determine compliance using the combined emissions.
(2) Use a method that is acceptable to the Administrator and that compensates for the emissions from the facilities not subject to the provisions of 40 CFR 60, Subpart AAa.
[40 CFR 60.275a(b)]

B.31. When emissions from any EAF and/or LMF are combined with emissions from facilities not subject to the provisions of 40 CFR 60, Subpart AAa, the owner or operator shall demonstrate compliance with 40 CFR 60.272(a)(3) based on emissions from only the affected facility(ies).
[40 CFR 60.275a(c)]

B.32. Initial Performance Tests.

a. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in Appendix A, 40 CFR 60, or other methods and procedures as specified in this section, except as provided in 40 CFR 60.8(b).
[40 CFR 60.275a(d)]

b. The permittee shall notify the Compliance Authority in writing of the date that the new EAF (EU-008) achieved the maximum production rate at which the affected facility will be operated pursuant to 40 CFR 60.8. Within 60 days after achieving the maximum production rate at which the EAF will be operated, but not later than 180 days after initial startup of the EAF, the permittee shall conduct the required performance tests to demonstrate compliance with the emissions standards for the EAF. Separate sets of initial tests shall be conducted for the following carbon sources: petroleum coke only; and used tires (shredded or whole) only. The initial performance tests shall be conducted at permitted capacity and shall not exceed the permitted capacities specified in this construction permit. During each set of performance tests, the permittee shall document and record the following:

1. Date performed and duration;
2. Liquid steel production;
3. EAF charging rate of all materials/constituents;
4. Sulfur content (percent by weight) of the petroleum coke used;
5. Volumetric flow rate (acfm and dscfm);
6. Flue gas moisture percent, oxygen content and temperature;
7. Continuous emissions monitoring systems (CEMS) data; and,
8. Any continuous monitoring systems (CMS) data required by permit.

The above information shall be summarized for each test run in the required test report.

[App. No. 0310157-009-AC; 40 CFR 60.8; and, Rules 62-4.070(3) and 62-297.310(2), (2)(b), (7)(a)1. & 8, F.A.C.]

B.33. The owner or operator shall determine compliance with the particulate matter standards in 40 CFR 60.272a as follows:
(1) EPA Reference Method 5 shall be used for negative-pressure fabric filters and other types of control devices and EPA Reference Method 5D shall be used for positive-pressure fabric filters to determine the particulate matter concentration and volumetric flow rate of the effluent gas. The sampling time and sample volume for each run shall be at least 4 hours and 4.50 dscm (160 dscf) and, when a single EAF and LMF are sampled, the sampling time shall include an integral number of heats.
(3) Method 9 and the procedures of 40 CFR 60.11 shall be used to determine opacity.
(4) To demonstrate compliance with 40 CFR 60.272a(a) (1), (2), and (3), the Method 9 test runs shall be conducted concurrently with the particulate matter test runs, unless inclement weather interferes.
[40 CFR 60.275a(e)(1), (3) and (4)]

B.34. To comply with 40 CFR 60.274a(c), (f), (g), and (h), the owner or operator shall obtain the information required in these paragraphs during the particulate matter runs. (see specific conditions **B.23.**, **B.26.**, **B.27.**, and **B.28.**, respectively)
[40 CFR 60.275a(f)]

B.35. Any control device subject to the provisions of 40 CFR 60, Subpart AAa, shall be designed and constructed to allow measurement of emissions using applicable test methods and procedures.
[40 CFR 60.275a(g)]

B.36. Where emissions from any EAF and/or LMF are combined with emissions from facilities not subject to the provisions of this subpart but controlled by a common capture system and control device, the owner or operator may use any of the following procedures during a performance test:
(1) Base compliance on control of the combined emissions;
(2) Utilize a method acceptable to the Administrator that compensates for the emissions from the facilities not subject to the provisions of 40 CFR 60, Subpart AAa; or,
(3) Any combination of the criteria of 40 CFR 60.275a(h)(1) and (h)(2).
[40 CFR 60.275a(h)]

B.37. Where emissions from any EAF and/or LMF are combined with emissions from facilities not subject to the provisions of 40 CFR 60, Subpart AAa, determinations of compliance with 40 CFR 60.272a(a)(3) will only be based upon emissions originating from the affected facility(ies).
[40 CFR 60.275a(i)]

B.38. Unless the presence of inclement weather makes concurrent testing infeasible, the owner or operator shall conduct concurrently the performance tests required under 40 CFR 60.8 to demonstrate compliance with 40 CFR 60.272a(a)(1), (2), and (3) of 40 CFR 60, Subpart AAa.
[40 CFR 60.275a(j)]

B.39. PM. Testing for demonstration of compliance shall be performed in accordance with EPA Reference Method 5 (as described in 40 CFR 60, Appendix A) and 40 CFR 60.275a(e)(1) for PM. Tests shall be conducted initially and annually. (See specific condition **B.33.**)
[40 CFR 60.275(e)(1); Rules 62-212.400(BACT) and 62-297.310, F.A.C.; Rule 2.1101, JEPB; and, 0310157-007-AC/PSD-FL-349]

B.40. VE. Testing for demonstration of compliance shall be performed concurrently with the PM test in accordance with EPA Reference Method 9 (as described in 40 CFR 60, Appendix A) for the visual determination of opacity. (See specific condition **B.33.**)
[40 CFR 60.275(e)(4); Rule 62-297.310, F.A.C.; Rule 2.1101, JEPB; and, 0310157-007-AC/PSD-FL-349]

B.41. CO. Testing for demonstration of compliance shall be performed in accordance with EPA Reference Method 10 (as described in 40 CFR 60, Appendix A) for CO. Tests shall be conducted initially and annually.
[Rules 62-212.400(BACT) and 62-297.310, F.A.C.; Rule 2.1101, JEPB; and, 0310157-007-AC/PSD-FL-349]

B.42. NO_x. Testing for demonstration of compliance shall be performed in accordance with EPA Reference Method 7, 7A or 7E (as described in 40 CFR 60, Appendix A) for NO_x (as NO_2). Tests shall be conducted initially and annually.
[Rules 62-212.400(BACT) and 62-297.310, F.A.C.; Rule 2.1101, JEPB; and, 0310157-007-AC/PSD-FL-349]

B.43. VOC. Testing for demonstration of compliance shall be performed in accordance with EPA Reference Method 18, 25, or 25A (as described in 40 CFR 60, Appendix A) for VOC. Tests shall be conducted initially and annually.
[Rules 62-212.400(BACT) and 62-297.310, F.A.C.; Rule 2.1101, JEPB; and, 0310157-007-AC/PSD-FL-349]

B.44. Pb. Testing for demonstration of compliance shall be performed in accordance with EPA Reference Method 12 (as described in 40 CFR 60, Appendix A) for Pb. Tests shall be conducted initially and annually.
[Rules 62-212.400(2)(g) and 62-297.310, F.A.C.; Rule 2.1101, JEPB; and, 0310157-007-AC/PSD-FL-349]

B.45. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day

period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.
[Rule 62-297.310(1), F.A.C.; and, Part XI, Rule 2.1001, JEPB]

B.46. Operating Rate During Testing. Testing of emissions shall be conducted with the emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.
[Rules 62-297.310(2) & (2)(b), F.A.C.; Rule 2.1301, JEPB; and, 0310157-007-AC/PSD-FL-349]

B.47. Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule.
[Rule 62-297.310(3), F.A.C.; and, Part XI, Rule 2.1001, JEPB]

B.48. Applicable Test Procedures.
(a) Required Sampling Time.
1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
a. For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.
b. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.
c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.
(b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.
(c) Required Flow Rate Range. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.
(d) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, attached as part of this permit.
(e) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.
[Rule 62-297.310(4), F.A.C.; and, Part XI, Rule 2.1001, JEPB]

B.49. Required Stack Sampling Facilities. When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit.
[Rule 62-297.310(6), F.A.C.; and, Part XI, Rule 2.1001, JEPB]

B.50. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing.

2. For excess emission limitations for particulate matter specified in Rule 62-210.700, F.A.C., a compliance test shall be conducted annually while the emissions unit is operating under soot blowing conditions in each federal fiscal year during which soot blowing is part of normal emissions unit operation, except that such test shall not be required in any federal fiscal year in which a fossil fuel steam generator does not burn liquid fuel for more than 400 hours other than during startup.

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the permitting authority shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

a. Did not operate; or

b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.

4. During each federal fiscal year (October 1– September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

a. Visible emissions, if there is an applicable standard;

b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and

c. Each NESHAP pollutant, if there is an applicable emission standard.

5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.

9. The owner or operator shall notify the ERMD-EQD and DEP-NED, at least 30 days prior to the initial NSPS performance test and 15 days prior to the date on which each subsequent formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

(b) Special Compliance Tests. When the ERMD-EQD or DEP-NED, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the ERMD-EQD and DEP-NED.
[Rule 62-297.310(7), F.A.C.; Part XI, Rule 2.1101, JEPB; 40 CFR 60.8; and, SIP approved]

Recordkeeping and Reporting Requirements

B.51. Records of the measurements required in 40 CFR 60.274a must be retained for at least 5 years following the date of the measurement.
[40 CFR 60.276a(a); Rule 62-213.440(1)(b), F.A.C.; and, Rule 2.501, JEPB]

B.52. Each owner or operator shall submit a written report of exceedances of the control device opacity to the compliance authority semi-annually. For the purposes of these reports, exceedances are defined as all 6-minute periods during which the average opacity is 3 percent or greater.
[40 CFR 60.276a(b)]

B.53. Operation at a furnace static pressure that exceeds the value established under 40 CFR 60.274a(g) and either operation of control system fan motor amperes at values exceeding ±15 percent of the value established under 40 CFR 60.274a(c) or operation at flow rates lower than those established under 40 CFR 60.274a(c) may be considered by the compliance authority to be unacceptable operation and maintenance of the affected facility. Operation at such values shall be reported to the compliance authority semiannually.
[40 CFR 60.276a(c)]

B.54. The requirements of 40 CFR 60.276a remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance

adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with this section, provided that they comply with the requirements established by the State.
[40 CFR 60.276a(d)]

B.55. When the owner or operator of an EAF and/or LMF are required to demonstrate compliance with the standard under 40 CFR 60.275a(b)(2) or a combination of (b)(1) and (b)(2), the owner or operator shall obtain approval from the permitting authority of the procedure(s) that will be used to determine compliance. Notification of the procedure(s) to be used must be postmarked at least 30 days prior to the performance test.
[40 CFR 60.276a(e)]

B.56. For the purpose of this subpart, the owner or operator shall conduct the demonstration of compliance with 40 CFR 60.272a(a) of this subpart and furnish the compliance authority a written report of the results of the test. This report shall include the following information:
(1) Facility name and address;
(2) Plant representative;
(3) Make and model of process, control device, and continuous monitoring equipment;
(4) Flow diagram of process and emission capture equipment including other equipment or process(es) ducted to the same control device;
(5) Rated (design) capacity of process equipment;
(6) Those data required under § 60.274a(h) of this subpart;
  (i) List of charge and tap weights and materials;
  (ii) Heat times and process log;
  (iii) Control device operation log; and
  (iv) Continuous monitor or Reference Method 9 data.
(7) Test dates and test times;
(8) Test company;
(9) Test company representative;
(10) Test observers from outside agency;
(11) Description of test methodology used, including any deviation from standard reference methods;
(12) Schematic of sampling location;
(13) Number of sampling points;
(14) Description of sampling equipment;
(15) Listing of sampling equipment calibrations and procedures;
(16) Field and laboratory data sheets;
(17) Description of sample recovery procedures;
(18) Sampling equipment leak check results;
(19) Description of quality assurance procedures;
(20) Description of analytical procedures;
(21) Notation of sample blank corrections; and,
(22) Sample emission calculations.
[40 CFR 60.276a(f)]

B.57. The owner or operator shall maintain records of all shop (melt shop and continuous caster buildings) opacity observations made in accordance with 40 CFR 60.273a(d). All shop (melt shop roof and continuous caster building roof) opacity observations in excess of the emission limit specified in 40 CFR 60.272a(a)(3) of 40 CFR 60, Subpart AAa, shall indicate a period of excess emission, and shall be reported to the compliance authority semi-annually, according to 40 CFR 60.7(c).
[40 CFR 60.276a(g)]

B.58. The owner or operator shall maintain the following records for each bag leak detection system required under 40 CFR 60.273a(e):
(1) Records of the bag leak detection system output;
(2) Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection system settings; and,
(3) An identification of the date and time of all bag leak detection system alarms, the time that procedures to determine the cause of the alarm were initiated, if procedures were initiated within 1 hour of the alarm, the cause of the alarm, an explanation

of the actions taken, the date and time the cause of the alarm was alleviated, and if the alarm was alleviated within 3 hours of the alarm.
[40 CFR 60.276a(h)]

B.59. The owner or operator shall keep records of steel production to demonstrate compliance with the steel production capacities specified in this permit.
[Rule 62-4.070(3), F.A.C.]

C. BRF (Billet Reheat Furnace). Rebar Mill BRF: Emissions Unit No. 009 and Wire/Rod Mill BRF: Emissions Unit No. 011.

Emissions Unit Descriptions: The facility processes steel billets into steel rebar, wire and rod. This is accomplished by reheating the steel billets that are either imported and/or produced by the continuous caster in the Rebar Mill BRF and processing them through various rolling and wire machines in the rolling and wire mills.

EU-009 The new Rebar Mill BRF (EU-009) will be located immediately south and east of the existing furnace and its stack will be located east of the rolling mill building. The production limits are the same as the new EAF/LMF as follows:

- 160 billet tons of steel per hour, maximum daily average;
- 1,192,800 billet tons of steel per consecutive 12-months; and,
- 8,520 hours per year operation.

EU-011 The proposed new Wire/Rod Mill BRF (EU-011) will be located approximately 150 feet southwest of the new Rebar Mill BRF (EU-009) and north of the new Melt Shop building. The production limits of the new Wire/Rod Mill BRF are:

- 160 billet tons of steel per hour, maximum daily average; and,
- 500,000 billet tons of steel per consecutive 12-months.

For the new Wire/Rod Mill BRF, the above production rates may be in addition to the maximum production rates of the EAF/LMF operation due to stored inventory and imported billets delivered to the plant.

Emissions Control: Proper engineering design; firing of natural gas; low-NO_x burners (LNBs); low excess air; good combustion practice, including control of combustion air and temperature, and the firing of natural gas.

Billet: means a semi-finished bar of steel nearly square in section made from the continuous caster operation or imported.

The following specific conditions apply to the emissions unit above.

General.

C.0. Post-Construction.
a. Rebar Mill BRF. The installation of a new Billet Reheat Furnace (BRF), designated now as the "Rebar Mill BRF", was authorized in air construction permit, No. 0310157-007-AC/PSD-FL-349, issued September 21, 2005. The construction shall be in accordance with the application and associated documents provided to the Permitting Authority for the issuance of that Previously issued permit. Any changes to the project that are contrary to those documents and permit shall be reported in writing to the Permitting Authority by the P.E. of Record.
[Rules 62-4.070(3) and 62-4.160(2), F.A.C.; and, 0310157-007-AC/PSD-FL-349]

b. Wire/Rod Mill BRF. This permit authorizes the installation of a Wire/Rod Mill BRF. The construction shall be in accordance with the application and associated documents provided to the Permitting Authority for the issuance of this permit. Any changes to the project that are contrary to those documents and permit shall be reported in writing to the Permitting Authority by the P.E. of Record.
[Rules 62-4.070(3) and 62-4.160(2), F.A.C.; and, 0310157-008-AC/PSD-FL-349A]

Essential Potential to Emit (PTE) Parameters.

C.1. Heat Input While Firing Natural Gas.
a. Rebar Mill BRF and Wire/Rod Mill BRF: The maximum heat input shall not exceed 222.0 x MMBtu per hour.
b. Wire/Rod Mill BRF: The total heat input shall not exceed 792,857 MMBtu per consecutive 12-months (778 MMcu ft per consecutive 12-months @ 1,019 Btu/cu ft).
[Rule 62-212.400(5), F.A.C.; Rule 2.401, JEPB; 0310157-007-AC/PSD-FL-349; and, 0310157-008-AC/PSD-FL-349A]

C.2. Steel processing throughput shall not exceed any of the following:
a. Rebar Mill BRF: 160 billet tons of steel per hour (maximum daily average).
b. Rebar Mill BRF: 1,192,800 billet tons of steel per consecutive 12-months.
[Rule 62-212.400(5), F.A.C.; Rule 2.401, JEPB; and, 0310157-007-AC/PSD-FL-349]

c. Wire/Rod Mill BRF: 160 billet tons of steel per hour (maximum daily average).
d. Wire/Rod Mill BRF: 500,000 billet tons of steel per consecutive 12-months.
[Rule 62-212.400(5), F.A.C.; Rule 2.401, JEPB; and, 0310157-008-AC/PSD-FL-349A]

C.3. The hours of operation shall not exceed:
a. Rebar Mill BRF: 8,520 hours per year.
[Rule 62-212.400(5), F.A.C.; Rule 2.401, JEPB; and, 0310157-007-AC/PSD-FL-349]

b. Wire/Rod Mill BRF: not restricted.
[Rule 62-212.400(5), F.A.C.; Rule 2.401, JEPB; and, 0310157-008-AC/PSD-FL-349A]

Emission Limitations and Standards

C.4. Best Available Control Technology Determination.

The following table shows the BACT emission limits, control technology, and test methods determined by the Department for the Rebar Mill BRF operations and the Wire/Rod Mill BRF operations:

Pollutant	Emission Limits [1]	Control Technology	Test Methods [2]
PM as PM/PM_{10}	--	Firing natural gas	--
NO_x	0.08 lb/MMBtu	Low-NO_x burners (LNBs); and, good combustion practices and low excess air	EPA Reference Method 7, 7A or 7E; 40 CFR 60, Appendix A
SO_2	--	Firing natural gas	--
CO	0.035 lb/MMBtu	Proper furnace design and good combustion practices, including control of combustion air and temperature	EPA Reference Method 10 40 CFR 60, Appendix A
VOCs	--	Firing natural gas; and, proper furnace design and good combustion practices, including control of combustion air and temperature	--
Visible Emissions	≤10% opacity, except for one 6-min period per hour in which the opacity shall not exceed 20%	Firing natural gas	EPA Reference Method 9 40 CFR 60, Appendix A

[1] The averaging time for each limit shall be in accordance with the test method.
[2] Compliance tests on each BRF operation shall be conducted at a minimum rate of 144 billet tons per hour (BTPH) per Rules 62-297.310(2) & (2)(b), F.A.C. [160 BTPH x 90% = 144 BTPH].
[Rules 62-4.070(3) and 62-212.400(PSD NSR & BACT), F.A.C.; 0310157-007-AC/PSD-FL-349; and, 0310157-008-AC/PSD-FL-349A]

C.5. PM/PM_{10}, SO_2 and VOC. Emissions shall be limited by firing natural gas.
[Rule 62-212.400(BACT), F.A.C.; Rule 2.401, JEPB; 0310157-007-AC/PSD-FL-349; and, 0310157-008-AC/PSD-FL-349A]

C.6. VE. VE shall not exceed 10 percent opacity, except for one 6-minute period per hour during which the opacity shall not exceed 20 percent.
[Rule 62-212.400(BACT), F.A.C.; Rule 2.401, JEPB; 0310157-007-AC/PSD-FL-349; and, 0310157-008-AC/PSD-FL-349A]

C.7. CO. CO emissions shall not exceed:
a. Rebar Mill BRF: 0.035 lb/MMBtu, 7.77 lbs/hr, and 33.02 TPY, based on the average of three (3) test runs conducted in accordance with EPA Reference Method 10 (as described in 40 CFR 60, Appendix A).
[Rule 62-212.400(BACT), F.A.C.; Rule 2.401, JEPB; 0310157-007-AC/PSD-FL-349; and, 0310157-008-AC/PSD-FL-349A]

b. Wire/Rod Mill BRF: 0.035 lb/MMBtu, 7.77 lbs/hr, and 13.9 TPY, based on the average of three (3) test runs conducted in accordance with EPA Reference Method 10 (as described in 40 CFR 60, Appendix A).
[Rule 62-210.200(Definitions - BACT), F.A.C.; Rule 2.401, JEPB; and, 0310157-008-AC/PSD-FL-349A]

C.8. NO_x. NO_x emissions shall not exceed:
a. Rebar Mill BRF: 0.08 lb/MMBtu, 17.76 lbs/hr, and 75.7 TPY, based on the average of three (3) test runs conducted in accordance with EPA Reference Method 7, 7A or 7E (as described in 40 CFR 60, Appendix A).
[Rule 62-212.400(BACT), F.A.C.; Rule 2.401, JEPB; and, 0310157-007-AC/PSD-FL-349]

b. Wire/Rod Mill BRF: 0.08 lb/MMBtu, 17.76 lbs/hr, and 31.7 TPY, based on the average of three (3) test runs conducted in accordance with EPA Reference Method 7, 7A or 7E (as described in 40 CFR 60, Appendix A).
[Rule 62-210.200(Definitions - BACT), F.A.C.; Rule 2.401, JEPB; and, 0310157-008-AC/PSD-FL-349A]

Excess Emissions

C.9. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.
[Rule 62-210.700(1), F.A.C.; and, Part III, Rule 2.301, JEPB]

C.10. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited.
[Rule 62-210.700(4), F.A.C.; and, Part III, Rule 2.301, JEPB]

Monitoring of Operations.

C.11. Determination of Process Variables.
(a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
(b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.
[Rule 62-297.310(5), F.A.C.; and, Part XI, Rule 2.1001, JEPB]

Test Methods and Procedures

C.12. VE. Testing for demonstration of compliance shall be performed in accordance with EPA Reference Method 9 (as described in 40 CFR 60, Appendix A) for the visual determination of opacity. Tests shall be conducted initially and annually.
[40 CFR 60.275(e); Rule 62-297.310, F.A.C.; Rule 2.1101, JEPB; 0310157-007-AC/PSD-FL-349; and, 0310157-008-AC/PSD-FL-349A]

C.13. CO. Testing for demonstration of compliance shall be performed in accordance with EPA Reference Method 10 (as described in 40 CFR 60, Appendix A) for CO. Tests shall be conducted initially and upon renewal.
[40 CFR 60.275(e); Rule 62-297.310, F.A.C.; Rule 2.1101, JEPB; 0310157-007-AC/PSD-FL-349; and, 0310157-008-AC/PSD-FL-349A]

C.14. NO_x. Testing for demonstration of compliance shall be performed in accordance with EPA Reference Method 7, 7A or 7E (as described in 40 CFR 60, Appendix A) for NO_x. Tests shall be conducted initially and upon renewal.
[40 CFR 60.275(e); Rule 62-297.310, F.A.C.; Rule 2.1101, JEPB; 0310157-007-AC/PSD-FL-349; and, 0310157-008-AC/PSD-FL-349A]

C.15. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.
[Rule 62-297.310(1), F.A.C.; and, Part XI, Rule 2.1001, JEPB]

C.16. Operating Rate During Testing. Testing of emissions shall be conducted with the emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.
[Rules 62-297.310(2) & (2)(b), F.A.C.; Rule 2.1301, JEPB; and, 0310157-007-AC/PSD-FL-349]

C.17. Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule.
[Rule 62-297.310(3), F.A.C.; and, Part XI, Rule 2.1001, JEPB]

C.18. Applicable Test Procedures.
(a) Required Sampling Time.
1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
a. For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.
b. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.
c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.
(b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.
(c) Required Flow Rate Range. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.

(d) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, attached as part of this permit.
(e) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.
[Rule 62-297.310(4), F.A.C.; and, Part XI, Rule 2.1001, JEPB]

C.19. Required Stack Sampling Facilities. When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit.
[Rule 62-297.310(6), F.A.C.; and, Part XI, Rule 2.1001, JEPB]

C.20. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.
(a) General Compliance Testing.

2. For excess emission limitations for particulate matter specified in Rule 62-210.700, F.A.C., a compliance test shall be conducted annually while the emissions unit is operating under soot blowing conditions in each federal fiscal year during which soot blowing is part of normal emissions unit operation, except that such test shall not be required in any federal fiscal year in which a fossil fuel steam generator does not burn liquid fuel for more than 400 hours other than during startup.
3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the permitting authority shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
   a. Did not operate; or
   b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.
4. During each federal fiscal year (October 1– September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
   a. Visible emissions, if there is an applicable standard;
   b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and
   c. Each NESHAP pollutant, if there is an applicable emission standard.
5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.
9. The owner or operator shall notify the ERMD-EQD and DEP-NED, at least 30 days prior to the initial NSPS performance test and 15 days prior to the date on which each subsequent formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

(b) Special Compliance Tests. When the ERMD-EQD or DEP-NED, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the ERMD-EQD and DEP-NED.
[Rule 62-297.310(7), F.A.C.; Part XI, Rule 2.1101, JEPB; 40 CFR 60.8; and, SIP approved]

Recordkeeping and Reporting Requirements

C.21. Monthly records shall be maintained for the following:
a. Rebar Mill BRF and Wire/Rod Mill BRF: Billet tons of steel processed per month.
b. Rebar Mill BRF: Hours of operation.
c. Wire/Rod Mill BRF: Cubic feet of natural gas fired.
[Rule 62-212.400(5), F.A.C.; Rule 2.401, JEPB; 0310157-007-AC/PSD-FL-349; and, 0310157-008-AC/PSD-FL-349A]

C.22. Records shall be maintained for a minimum of five (5) years and made available to the Department upon request.
[Rule 62-213.440(1)(b), F.A.C.; Rule 2.501, JEPB; 0310157-007-AC/PSD-FL-349; and, 0310157-008-AC/PSD-FL-349A]

~~Rock Dryer~~ #2 Phosphate Grinder (EU-001)

$$\left(\frac{0.01\ \text{grain}}{\text{acf}}\right)\left(\frac{5533\ \text{ACF}}{\text{min}}\right)\left(\frac{60\ \text{min}}{\text{hour}}\right)\left(\frac{\text{lb}}{7000\ \text{gr}}\right) \rightarrow$$

$$=\left(\frac{0.47\ \text{lb}}{\text{hour}}\right)\left(\frac{8760\ \text{hr}}{\text{yr}}\right)\left(\frac{\text{ton}}{2000\ \text{lb}}\right) = \underline{\underline{2.1\ \text{TPY}}}$$

EU-032

Cooler → AE application

< 15 TPY