STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF PERMITS

In the matter of an
Application for Permits by:

DER File Nos. AC 16-193733
AC 16-193734
Duval County

Florida Steel Corporation
P.O. Box 518
Baldwin, Florida 32234

_____/

Enclosed are Permit Numbers AC 16-193733 and AC 16-193734 to allow an increase in the permitted hours of operation and pollutant emissions for the facility's billet reheat furnace and electric arc furnace, issued pursuant to Section(s) 403, Florida Statutes.

Any party to this Order (permit) has the right to seek judicial review of the permits pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and, by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

C. H. Fancy, P.E., Chief
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400
904-488-1344

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMITS and all copies were mailed before the close of business on 7-1-91 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED,
on this date, pursuant to
§120.52(11), Florida Statutes,
with the designated Department
Clerk, receipt of which is hereby
acknowledged.

(Clerk) 7-1-91 (Date)

Copies furnished to:
A. Kutyna, NE District
R. Roberson, BESD
R. Sholtes, P.E., RSS
B. Congdon, Esq., DER
J. Alves, Esq., HBG&S

Final Determination

Florida Steel Corporation
Duval County
Baldwin, Florida

Construction Permit Nos.
AC 16-193733
AC 16-193734

Department of Environmental Regulation
Division of Air Resources Management
Bureau of Air Regulation

June 17, 1991

Final Determination

The construction permit application packages and supplementary material have been reviewed by the Department. Public Notice of the Department's Intent to Issue was published in The Florida Times-Union on May 31, 1991. The Technical Evaluation and Preliminary Determination was distributed on May 24, 1991, and available for public inspection at the Department's Northeast District office and the Department's Bureau of Air Regulation office.

There were no comments received during the public notice period. Therefore, it is recommended that the construction permits be issued as drafted.

HOPPING BOYD GREEN & SAMS
ATTORNEYS AND COUNSELORS
123 SOUTH CALHOUN STREET
POST OFFICE BOX 6526
TALLAHASSEE, FLORIDA 32314
(904) 222-7500
FAX (904) 224-8551

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DAVID L. POWELL
DOUGLAS S. ROBERTS
CECELIA C. SMITH

OF COUNSEL
W. ROBERT FOKES

June 13, 1991

BY HAND-DELIVERY

Mr. Clair H. Fancy, P.E.
Chief, Bureau of Air Regulation
Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road, Room 306F
Tallahassee, Florida 32399-2400

Re: Florida Steel Corporation
Intent to Issue Permits
DER Files Nos. AC 16-193733; AC 16-193734

Dear Clair:

Enclosed is the proof of publication from the Jacksonville Times Union demonstrating publication, on May 31, 1991, of the Notice of DER's Intent to Issue the referenced permits.

I will check with your office and the Office of General Counsel on June 17, 1991 to determine whether anybody has filed a petition or comments.

DOAH Case No. 91-404 presently is scheduled for hearing on July 11, 1991. Issuance of the referenced permits in accordance with the Intent to Issue will effectively moot the issues at stake in that proceeding, and facilitate entry of a stipulated dismissal. Anything that you, Bruce Mitchell, and others can do to accomplish issuance of the final permits one or two weeks advance of July 11 would be mutually beneficial.

It has taken several years to work out the air permit issues related to Florida Steel's Baldwin Mill, and it now appears that final resolution is close at hand. The folks at Florida Steel and I sincerely appreciate the courtesy and

cooperation that you and Bruce have extended in bringing this matter to closure. Florida Steel looks forward to a cooperative working relationship with the Department.

Sincerely,

James S. Alves

/kkm
cc: Bruce Mitchell
Bill Congdon

FLORIDA PUBLISHING COMPANY

Publisher

JACKSONVILLE, DUVAL COUNTY, FLORIDA

STATE OF FLORIDA }
COUNTY OF DUVAL }

Before the undersigned authority personally appeared _____

Edna Taylor

who on oath says that he is

a classified advertising rep

of The Florida Times-Union,

a daily newspaper published at Jacksonville in Duval County, Florida; that the attached copy of advertisement, being a legal notice

in the matter of notice of intent to issue permit

in the _____ Court,

was published in THE FLORIDA TIMES-UNION in the issues of

May 31, 1991

Affiant further says that the said The Florida Times-Union is a newspaper published at Jacksonville, in said Duval County, Florida, and that the said newspaper has heretofore been continuously published in said Duval County, Florida, The Florida Times-Union each day, has been entered as second class mail matter at the postoffice in Jacksonville, in said Duval County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in said newspaper.

Sworn to and subscribed before me this 11th day of May A.D. 19 91

Notary Public,
State of Florida at Large.

My Commission Expires
Notary Public, State of Florida
My Commission Expires Dec. 2, 1994

Edna Taylor

DA 444 Bonded Thru Troy Fain-Insurance Inc.

State of Florida
Department of Environmental Regulati
Notice of Intent to Issue

The Department of Environmental Regulatic by gives notice of its intent to issue permits t da Steel Corporation, 7973 Rebar Road, B. Duval County, Florida 32234, to modify the e arc furnace and billet reheat furnace, which low an increase in the permitted hours of op and the pollutant emissions. A determina Best Available Control Technology (BACT) v required. The Department is issuing this In Issue for the reasons stated in the Technical ation and Preliminary Determination.

A person whose substantial interests are af by the Department's proposed permitting de may petition for an administrative proce (hearing) in accordance with Section 120.57, F Statutes. The petition must be contain the inf tion set forth below and must be filed (receiv the Office of General Counsel of the Departm 2600 Blair Stone Road, Tallahassee, F 32399-2400, within fourteen (14) days of publi of this notice. Petitioner shall mail a copy of t tition to the applicant at the address indi above at the time of filing. Failure to file a pe within this time period shall constitute a waiv any right such person may have to request a ministrative determination (hearing) under Se 120.57, Florida Statutes. The Petition shall co the following information:

(a) The name, address, and telephone numb each petitioner, the applicant's name and add the Department Permit File Number and the ty in which the project is proposed; (b) A state of how and when each petitioner received noti the Department's action or proposed action; statement of how each petitioner's substantial i ests are affected by the Department's action or posed action; (d) A statement of the material disputed by Petitioner, if any; (e) A stateme facts which petitioner contends warrant revers modification of the Department's action or posed action; (f) A statement of which rules or utes petitioner contends require reversal or mo cation of the Department's action or proposed tion; and, (g) A statement of the relief sough petitioner, stating precisely the action petiti wants the Department to take with respect to Department's action or proposed action.

If a petition is filed, the administrative hearing cess is designed to formulate agency action. cordingly, the Department's final action may be ferent from the position taken by it in this No Persons whose substantial interests will be affe by any decision of the Department with regar the applications have the right to petition to bec a party to the proceeding. The petition must form to the requirements specified above an filed (received) within 14 days of publication of notice in the Office of General Counsel at the a address of the Department. Failure to petition w in the allowed time frame constitutes a waive any right such person has to request a hearing der Section 120.57, F.S., and to participate as a ty to this proceeding. Any subsequent interver will only be at the approval of the presiding off upon motion filed pursuant to Rule 28-5.207, F. The applications are available for public inspec during business hours, 8:00 a.m. to 5:00 p.m., M day thro ay, except legal holidays, at:

Dep of Environmental Regulation
eau of Air Regulation
00 Blair Stone Road
Tallahassee, Florida 32399-2400

Department of Environmental Regulation
Northeast District
7825 Baymeadows Way
Jacksonville, Florida 32256-7577

Duval County Bio-Environmental Services Divis
421 West Church Street
Suite 412
Jacksonville, Florida 32202-4111

Any person may send written comments on the posed action to Mr. Barry Andrews at the Dep ment's Tallahassee address. All comments ma within 14 days of the publication of this notice be considered in the Department's final determ tion.

Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

PERMITTEE:
Florida Steel Corporation
P. O. Box 518
Baldwin, Florida 32234

Permit Number: AC 16-193733
Expiration Date: May 31, 1992
County: Duval
Latitude/Longitude: 30°16'53"N
81°58'50"W
Project: Billet Reheat Furnace

This permit is issued under the provisions of Chapter 403, Florida Statutes, Florida Administrative Code (F.A.C.) Chapters 17-2 and 17-4, and 40 CFR (July, 1990 version). The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the modification of the billet reheat furnace (BRF) to allow an increase in the hours of operation and the pollutant emissions. The BRF will be fired primarily on natural gas, but will be allowed up 350 hrs/yr to fire No. 4 fuel oil at a maximum heat input of 185 x 10^6 Btu/hr. The No. 4 fuel oil will be limited to a maximum sulfur content of 0.7%, by weight. There is no control system associated with the BRF operation. The project will occur at the permittee's facility located at 7973 Rebar Road in Baldwin, Duval County, Florida. The UTM coordinates are Zone 17, 405.7 km East and 3350.2 km North.

The Standard Classification Codes are: Steel Production - 3312

o BRF: 3-03-009-33 Tons Produced

The source shall be constructed/modified in accordance with the permit application, plans, documents, amendments, drawings, and supplementary information, except as otherwise noted in the General and Specific Conditions.

Attachments to be Incorporated:

1. Application to Construct Air Pollution Sources, DER Form 17-1.202(1), received March 12, 1991.
2. Technical Evaluation and Preliminary Determination dated May 22, 1991.

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, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these 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), Florida Statutes, 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 acknowledgement 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 not 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 permittee 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 or 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.

GENERAL CONDITIONS:

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 records 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 noncompliance, 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.

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 proscribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

GENERAL CONDITIONS:

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 Florida Administrative Code Rules 17-4.120 and 17-30.300, 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. 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 measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

GENERAL CONDITIONS:

14. 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:

1. For the BRF, the permittee is subject to all applicable provisions of F.A.C. Chapters 17-2 and 17-4 and 40 CFR (July, 1990 version).

2. The BRF is permitted to operate a maximum of 8300 hrs/yr.

3. The BRF is primarily fired on natural gas at a maximum heat input of 185 x 10^6 Btu/hr (1.78 x 10^5 ft^3); however, the BRF is permitted to fire No. 4 fuel oil at a maximum heat input of 185 x 10^6 Btu/hr (1.25 x 10^3 gals/hr). The No. 4 fuel oil will be limited to a maximum sulfur content of 0.7%, by weight. The BRF is permitted to fire No. 4 fuel oil for up to 350 hrs/yr.

4. The maximum total process input and product rates are 90 billet tons per hour (bTPH) and 440,172 bTPY steel.

5. For the BRF, pollutant emissions will be limited to the following:

Pollutant	Natural Gas	No. 4 Fuel Oil
o PM/PM_{10}:	0.3 lbs/hr; 1.2 TPY	4.9 lbs/hr; 0.9 TPY
o SO_2:	0.6 lbs/hr; 2.4 TPY	76.4 lbs/hr; 13.4 TPY
o NOx:	13.8 lbs/hr; 54.9 TPY	21.6 lbs/hr; 3.8 TPY
o CO:	3.5 lbs/hr; 13.9 TPY	3.5 lbs/hr; 0.6 TPY
o HC:	0.3 lbs/hr; 1.2 TPY	0.7 lbs/hr; 0.1 TPY
o VE:	less than 20% opacity	less than 20% opacity

Note: For the pollutant emission calculations, the permitted hours of operation are 8300 hrs/yr and based on the following:
- o Natural Gas: 7950 hrs/yr.
- o No. 4 Fuel Oil: 350 hrs/yr.
- o Maximum heat input for all fuels is 185 x 10^6 Btu/hr.

6. For testing purposes and NSPS applicability purposes, the maximum product rate of the BRF is 90 bTPH steel. For PSD purposes, the maximum product rate of the BRF is 440,172 bTPY steel.

SPECIFIC CONDITIONS:

7. Test methods and procedures shall be in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A:

a. Natural Gas firing

(1) The initial and subsequent compliance tests for particulate matter (PM/PM_{10}) emissions and VE shall be conducted using EPA Methods 5 and 9, respectively. The compliance tests shall be conducted concurrently, unless inclement weather interferes.

(2) Other test methods may be used only if prior Departmental approval has been granted in writing pursuant to F.A.C. Rule 17-2.700(3).

b. No. 4 Fuel Oil firing

(1) For verification purposes and one time test requirement to establish the actual emissions/emission rate, compliance tests for particulate matter (PM/PM_{10}) emissions and VE shall be conducted using EPA Methods 5 and 9, respectively. The compliance tests shall be conducted concurrently, unless inclement weather interferes.

(2) For verification purposes and one time test requirement to establish the actual emissions/emission rate(s), compliance tests for SO_2, NOx, CO and VOC shall be conducted using EPA Methods 6, 7, 10 and 25A, respectively.

(3) Other test methods may be used only if prior Departmental approval has been granted in writing pursuant to F.A.C. Rule 17-2.700(3).

(4) The above compliance tests are to be conducted the next time that No. 4 fuel oil is being fired in the BRF.

8. For the BRF, the permittee is subject to all applicable provisions of F.A.C. Rules 17-2.240: Circumvention; 17-2.250: Excess Emissions; 17-2.700: Stationary Point Source Emission Test Procedures; and, 17-4.130: Plant Operations-Problems.

9. Objectionable odors shall not be allowed off plant property in accordance with F.A.C. Rule 17-2.620(2).

10. The Duval County Bio-Environmental Services Division (BESD) office shall be notified in writing at least 15 days prior to

SPECIFIC CONDITIONS:

compliance testing in accordance with F.A.C. Rule 17-2.700(2). The test report(s) shall be submitted to the BESD office no later than 45 days after the last sampling run of each test is completed in accordance with F.A.C. Rule 17-2.700(7).

11. Any change to the BRF pursuant to F.A.C. Rule 17-2.100, Definitions-Modification, the permittee shall submit an application and the appropriate processing fee to the Department's Bureau of Air Regulation office.

12. This permit supercedes all other air permits issued for the BRF.

13. A log book shall be maintained recording, at a minimum, the date(s) and the beginning and ending "clock time(s)" of operation while firing No. 4 fuel oil.

14. An annual operation report shall be submitted to the BESD office by March 1 of each calendar year reporting, at a minimum, the total quantity of No. 4 fuel oil used (including the fuel oil analyses from the vendor(s)) and the total throughput of billet tons of steel.

15. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation prior to 60 days before the expiration date of the permit (F.A.C. Rule 17-4.090).

16. An application for an operation permit must be submitted to the Department's Northeast District office at least 90 days prior to the expiration date of this construction permit. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed while noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rules 17-4.055 and 17-2.220).

Issued this 28th day
of June, 1991
STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

STEVE SMALLWOOD, Director
Division of Air Resources

Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

PERMITTEE:
Florida Steel Corporation
P. O. Box 518
Baldwin, Florida 32234

Permit Number: AC 16-193734
Expiration Date: May 31, 1992
County: Duval
Latitude/Longitude: 30°16'53"N
81°58'50"W
Project: Electric Arc Furnace and Associated Baghouse Control Systems

This permit is issued under the provisions of Chapter 403, Florida Statutes, Florida Administrative Code (F.A.C.) Chapters 17-2 and 17-4, and 40 CFR (July, 1990 version). The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the modification of the electric arc furnace (EAF), and associated baghouse control systems (Nos. 1-2, 3 & 4), to allow an increase in the hours of operation and the pollutant emissions. The EAF will have maximum total process input and product rates of 145,262 lbs/hr raw material and 65 billet tons/hr steel, respectively. The EAF is fired on natural gas. The baghouse control systems have a combined average flow rate of 532,268 dscfm; also, the baghouses have a design efficiency of +99% for particulate matter (PM/PM_{10}) of submicron size. The project will occur at the permittee's facility located at 7973 Rebar Road in Baldwin, Duval County, Florida. The UTM coordinates are Zone 17, 405.7 km East and 3350.2 km North.

The Standard Classification Codes are: Steel Production - 3312

o	EAF: stack	3-03-009-04	Tons Produced
o	EAF: charging	3-03-009-06	Tons Produced
o	EAF: tapping	3-03-009-07	Tons Produced

The source shall be constructed/modified in accordance with the permit application, plans, documents, amendments, drawings, and supplementary information, except as otherwise noted in the General and Specific Conditions.

Attachments to be Incorporated:

1. Application to Construct Air Pollution Sources, DER Form 17-1.202(1), received March 12, 1991.
2. Technical Evaluation and Preliminary Determination dated May 22, 1991.

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, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these 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), Florida Statutes, 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 acknowledgement 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 not 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 permittee 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 or 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.

GENERAL CONDITIONS:

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 records 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 noncompliance, 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.

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 proscribed by Sections 403.73 and 403.111, Florida Statutes. 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,

GENERAL CONDITIONS:

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 Florida Administrative Code Rules 17-4.120 and 17-30.300, 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) Compliance with Standards of Performance for New Stationary Sources (NSPS), 40 CFR 60, Subpart AA.

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 measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

GENERAL CONDITIONS:

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:

1. For the EAF, the permittee is subject to all applicable provisions of F.A.C. Chapters 17-2 and 17-4 and 40 CFR (July, 1990 version).

2. The EAF is permitted to operate a maximum of 7872 hrs/yr.

3. The maximum total process input rates of raw materials are 145,262 lbs/hr and 483,705 TPY. The maximum product rates of billet steel are 65 tons/hr and 440,172 TPY.

4. From the baghouse systems (Nos. 1-2, 3 & 4), the total pollutant emissions shall not exceed the following:

o PM/PM_{10}:	21.8 lbs/hr;	85.8 TPY
o CO:	58.5 lbs/hr;	198.3 TPY
o SO_2:	20.0 lbs/hr;	67.8 TPY
o NOx:	1.1 lbs/hr;	3.7 TPY

Note: Pollutant emissions are based on:

a. Hourly
   - o PM/PM_{10}: Permittee's request pursuant to F.A.C. Rule 17-2.510(2)(d)5.
   - o All others: 65 bTPH steel product rate (AP-42 Emission Factors).

b. Annual
   - o PM/PM_{10}: 7872 hrs/yr operation.
   - o All others: 440,172 bTPY steel product rate.

5. Visible emissions (VE) shall not exceed the following:

- o 3% opacity from the baghouse systems (Nos. 1-2, 3 & 4);
- o From the shop roof:
  - o 20% opacity during charging; and,
  - o 40% opacity during tapping.

6. For testing purposes and NSPS applicability purposes, the maximum product rate of the EAF is 65 bTPH steel. For PSD purposes, the maximum product rate of the EAF will be 440,172 bTPY steel.

SPECIFIC CONDITIONS:

7. Test methods and procedures shall be in accordance with 40 CFR 60.275 and F.A.C. Rule 17-2.700:

   a. The initial and subsequent compliance tests for particulate matter (PM/PM_{10}) emissions and VE shall be conducted using EPA Methods 5 and 9, respectively (40 CFR 60, Appendix A). The compliance tests shall be conducted concurrently, unless inclement weather interferes.

   b. For verification purposes and one time test requirement to establish the actual emissions/emission rate(s), compliance tests for NOx and CO shall be conducted using EPA Methods 7 and 10, respectively.

   c. Other test methods may be used only if prior Departmental approval has been granted in writing pursuant to F.A.C. Rule 17-2.700(3).

8. Emission monitoring shall be in accordance with 40 CFR 60.273, which includes the requirement for the installation, calibration, maintenance, and operation of a continuous monitoring system for the measurement of the opacity of emissions into the atmosphere.

9. Monitoring of emissions shall be in accordance with 40 CFR 60.274.

10. Recording keeping and recording requirements shall be in accordance with 40 CFR 60.276.

11. For the EAF, the permittee is subject to all applicable provisions of F.A.C. Rules 17-2.240: Circumvention; 17-2.250: Excess Emissions; 17-2.660: NSPS; 17-2.700: Stationary Point Source Emission Test Procedures; and, 17-4.130: Plant Operations-Problems.

12. Objectionable odors shall not be allowed off plant property in accordance with F.A.C. Rule 17-2.620(2).

13. The Duval County Bio-Environmental Services Division (BESD) office shall be notified in writing at least 15 days prior to compliance testing in accordance with F.A.C. Rule 17-2.700(2). The test report(s) shall be submitted to the BESD office no later than 45 days after the last sampling run of each test is completed in accordance with F.A.C. Rule 17-2.700(7).

14. Any change to the EAF pursuant to F.A.C. Rule 17-2.100, Definitions-Modification, the permittee shall submit an application and the appropriate processing fee to the Department's Bureau of Air Regulation office.

PERMITTEE:
Florida Steel Corporation

Permit Number: AC 16-193734
Expiration Date: May 31, 1992

SPECIFIC CONDITIONS:

15. This permit supercedes all other air permits issued for the EAF.

16. An annual operation report shall be submitted to the BESD office by March 1 of each calendar year reporting, at a minimum, the annual quantity of natural gas fired and the billet tons of steel product.

17. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation prior to 60 days before the expiration date of the permit (F.A.C. Rule 17-4.090).

18. An application for an operation permit must be submitted to the Department's Northeast District office at least 90 days prior to the expiration date of this construction permit. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed while noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rules 17-4.055 and 17-2.220).

Issued this 28th day
of June, 1991
STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

STEVE SMALLWOOD, Director
Division of Air Resources Management

Bruce's Copy

Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

May 24, 1991

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. Alton W. Davis
Division Manager
Florida Steel Corporation
Baldwin Mill Division
7973 Rebar Road
Post Office Box 518
Baldwin, Florida 32234

Dear Mr. Davis:

Attached is one copy of the Technical Evaluation and Preliminary Determination and proposed permits to modify the existing electric arc furnace and the billet reheat furnace. The modification will allow an increase in the permitted hours of operation and the pollutant emissions.

Please submit any written comments you wish to have considered concerning the Department's proposed action to Mr. Barry Andrews of the Bureau of Air Regulation.

Sincerely,

C. H. Fancy, P.E.
Chief
Bureau of Air Regulation

CHF/BM/bm

Attachments

c: A. Kutyna, NE District
R. S. Sholtes, P.E., RSS
J. Alves, Esq., HBG&S
R. Roberson, BESD

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of
Application for Permits by:

Florida Steel Corporation
7973 Rebar Road
Baldwin, Florida 32234

DER File Nos. AC 16-193733
AC 16-193734

INTENT TO ISSUE

The Department of Environmental Regulation hereby gives notice of its intent to issue air construction permits (copies attached) for the proposed project as detailed in the applications specified above. The Department is issuing this Intent to Issue for the reasons stated in the attached Technical Evaluation and Preliminary Determination.

The applicant, Florida Steel Corporation, applied on March 12, 1991, to the Department of Environmental Regulation for permits to modify the electric arc furnace and the billet reheat furnace, which will allow an increase in the permitted hours of operation and the pollutant emissions.

The Department has permitting jurisdiction under Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-2 and 17-4. The project is not exempt from permitting procedures. The Department has determined that air construction permits are required for the proposed work.

Pursuant to Section 403.815, F.S. and DER Rule 17-103.150, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Intent to Issue Permits. The notice shall be published one time only within 30 days, in the legal ad section of a newspaper of general circulation in the area affected. For the purpose of this rule, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. The applicant shall provide proof of publication to the Department, at the address specified within seven days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permits.

The Department will issue the permits with the attached conditions unless a petition for an administrative proceeding (hearing) is filed pursuant to the provisions of Section 120.57, F.S.

Any person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the permit applicant and the parties listed below must be filed within 14 days of receipt of this intent. Petitions filed by other persons must be filed within 14 days of publication of the public notice or within 14 days of receipt of this intent, whichever first occurs. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information;

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;

(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;

(d) A statement of the material facts disputed by Petitioner, if any;

(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and,

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the applications have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office in General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this

proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

C. H. Fancy, P.E.
Chief
Bureau of Air Regulation

Copies furnished to:

A. Kutyna, NE District
R. S. Sholtes, P.E., RSS
J. Alves, Esq., HBG&S

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF INTENT TO ISSUE and all copies were mailed before the close of business on 5-24-91.

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to §120.52(9), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Kyra Dober
Clerk

5-24-91
Date

State of Florida
Department of Environmental Regulation
Notice of Intent to Issue

The Department of Environmental Regulation hereby gives notice of its intent to issue permits to Florida Steel Corporation, 7973 Rebar Road, Baldwin, Duval County, Florida 32234, to modify the electric arc furnace and billet reheat furnace, which will allow an increase in the permitted hours of operation and the pollutant emissions. A determination of Best Available Control Technology (BACT) was not required. The Department is issuing this Intent to Issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;

(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;

(d) A statement of the material facts disputed by Petitioner, if any;

(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and,

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the applications have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

The applications are available for public inspection during business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

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

Department of Environmental Regulation
Northeast District
7825 Baymeadows Way
Jacksonville, Florida 32256-7577

Duval County Bio-Environmental Services Division
421 West Church Street
Suite 412
Jacksonville, Florida 32202-4111

Any person may send written comments on the proposed action to Mr. Barry Andrews at the Department's Tallahassee address. All comments mailed within 14 days of the publication of this notice will be considered in the Department's final determination.

Technical Evaluation
and
Preliminary Determination

Florida Steel Corporation
Duval County
Baldwin, Florida

Construction Permit Nos. AC 16-193733
AC 16-193734

Department of Environmental Regulation
Division of Air Resources Management
Bureau of Air Regulation

May 22, 1991

I. Application

A. Applicant

Florida Steel Corporation
7973 Rebar Road
Post Office Box 518
Baldwin, Florida 32234

B. Project and Location

The applicant has applied for construction permits for modifications to the electric arc furnace (EAF) and the billet reheat furnace (BRF), which will allow an increase in the permitted hours of operation and pollutant emissions. The project will occur at the applicant's facility located in Duval County. The UTM Coordinates are Zone 17, 405.7 km East and 3,350.2 km North.

C. Process and Controls

1. EAF

The EAF is used for melting and refining scrap steel and the finished product is tapped/poured into steel billets. The emissions of particulate matter (PM) and visible emissions (VE) are controlled by associated baghouse control systems Nos. 1-2 (originally Nos. 1 & 2 (1981)), 3 and 4 (1985-86). Baghouse control systems Nos. 3 and 4 were installed for better PM emissions and VE control.

The primary fuel is natural gas.

2. BRF

The BRF is used to reheat the steel billets for rolling into concrete reinforcing bar. There is no control system associated with this operation.

The primary fuel is natural gas, while limited use of No. 4 fuel oil (FO) will be permitted (1.25×10^3 gals/hr (185×10^6 Btu/hr heat input)). The No. 4 FO shall not exceed a maximum sulfur content of 0.7%, by weight.

D. The Source Classification Codes are:

o EAF: Stack	3-03-009-04	Tons Produced
o EAF: Charging	3-03-009-06	Tons Produced
o EAF: Tapping	3-03-009-07	Tons Produced
o BRF	3-03-009-33	Tons Produced

II. Rule Applicability

The proposed project is subject to preconstruction review pursuant to Chapter 403, Florida Statutes, Florida Administrative Code (F.A.C.) Rules 17-2 and 17-4, and 40 CFR 60 (July, 1990 version).

The application package was deemed complete on March 12, 1991.

The facility is located in an area of influence of Duval County's PM maintenance area and PM_{10} unclassifiable area and is in a maintenance area for ozone pursuant to Part IV, F.A.C. Rule 17-2.

The facility will be a minor emitting facility for all pollutants in accordance with F.A.C. Rule 17-2.100, Definitions. Since the EAF and BRF have not been physically modified, then the sources are under the provisions of F.A.C. Rules 17-2.500(2)(g) and 17-2.510(2)(d)5., Relaxations of Restrictions on Pollutant Emitting Capacity. Also, the modifications will not impose emissions New Source Review pursuant to F.A.C. Rules 17-2.500, Prevention of Significant Deterioration (PSD), and 17-2.510, Nonattainment Areas. The potential emissions will be reviewed in accordance with F.A.C. Rule 17-2.520, Sources Not Subject to PSD or Nonattainment Requirements.

The EAF and BRF are subject to the applicable provisions of F.A.C. Rules 17-2.240: Circumvention; 17-2.250: Excess Emissions; 17-2.620(2): General Pollutant Emission Limiting Standards-Objectionable Odors; 17-2.660: Standards of Performance for New Stationary Sources; and, 17-2.700: Stationary Point Source Emission Test Procedures. All applicable provisions of the 40 CFR shall be in accordance with the July, 1990 version.

For the BRF, a log book shall be maintained recording, at a minimium, the date(s) and the beginning and ending "clock time(s)" of operation while firing No. 4 FO. The annual quantity of No. 4 FO consumed shall be reported to the Duval County's Bio-Environmental Services Division (BESD) in an annual operating report by March 1 of each calendar year.

III. Emission Limitations and Air Quality Analysis

A. Emission Limitations

For the EAF, particulate matter (PM/PM_{10}) will be limited to a maximum of 21.8 lbs/hr (85.8 TPY). The permitted hours of operation will be limited to 7872 hrs/yr. Because the other pollutant emissions are based on billet steel production (90 billet tons/hr; 440,172 billet tons/yr), which is not changing, then the previously permitted pollutant emission limits/rates will not be changed.

For the BRF, pollutant emissions will be limited to the following:

Pollutant	Natural Gas	No. 4 Fuel Oil
o PM/PM_{10}:	0.3 lbs/hr; 1.2 TPY	4.9 lbs/hr; 0.9 TPY
o SO_2:	0.6 lbs/hr; 2.4 TPY	76.4 lbs/hr; 13.4 TPY
o NOx:	13.8 lbs/hr; 54.9 TPY	21.6 lbs/hr; 3.8 TPY
o CO:	3.5 lbs/hr; 13.9 TPY	3.5 lbs/hr; 0.6 TPY
o HC:	0.3 lbs/hr; 1.2 TPY	0.7 lbs/hr; 0.1 TPY
o VE:	less than 20% opacity	less than 20% opacity

Note: For the pollutant emission calculations, the permitted hours of operation are 8300 hrs/yr and based on the following:

- o Natural Gas: 7950 hrs/yr.
- o No. 4 Fuel Oil: 350 hrs/yr.
- o Maximum heat input for all fuels is 185 x 10^6 Btu/hr.

B. Air Quality Analysis

Based on a technical evaluation of the application package, an air quality analysis was not required.

IV. Conclusion

Based on the information provided by Florida Steel Corporation, the Department has reasonable assurance that the proposed project, to acquire construction permits for modifications to the EAF and the BRF to allow an increase in the permitted hours of operation and pollutant emissions, as described in this evaluation, and subject to the conditions proposed herein, will not cause or contribute to a violation of any air quality standard, PSD increment, or any other technical provision of Chapter 17-2 of the Florida Administrative Code.

Barry D. Andrews
36124
5-22-91

Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

PERMITTEE:
Florida Steel Corporation
P. O. Box 518
Baldwin, Florida 32234

Permit Number: AC 16-193733
Expiration Date: May 31, 1992
County: Duval
Latitude/Longitude: 30°16'53"N
81°58'50"W
Project: Billet Reheat Furnace

This permit is issued under the provisions of Chapter 403, Florida Statutes, Florida Administrative Code (F.A.C.) Chapters 17-2 and 17-4, and 40 CFR (July, 1990 version). The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the modification of the billet reheat furnace (BRF) to allow an increase in the hours of operation and the pollutant emissions. The BRF will be fired primarily on natural gas, but will be allowed up 350 hrs/yr to fire No. 4 fuel oil at a maximum heat input of 185 x 10^6 Btu/hr. The No. 4 fuel oil will be limited to a maximum sulfur content of 0.7%, by weight. There is no control system associated with the BRF operation. The project will occur at the permittee's facility located at 7973 Rebar Road in Baldwin, Duval County, Florida. The UTM coordinates are Zone 17, 405.7 km East and 3350.2 km North.

The Standard Classification Codes are: Steel Production - 3312

o BRF: 3-03-009-33 Tons Produced

The source shall be constructed/modified in accordance with the permit application, plans, documents, amendments, drawings, and supplementary information, except as otherwise noted in the General and Specific Conditions.

Attachments to be Incorporated:

1. Application to Construct Air Pollution Sources, DER Form 17-1.202(1), received March 12, 1991.
2. Technical Evaluation and Preliminary Determination dated May 22, 1991.

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, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these 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), Florida Statutes, 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 acknowledgement 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 not 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 permittee 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 or 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.

GENERAL CONDITIONS:

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 records 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 noncompliance, 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.

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 proscribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

GENERAL CONDITIONS:

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 Florida Administrative Code Rules 17-4.120 and 17-30.300, 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. 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 measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

GENERAL CONDITIONS:

14. 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:

1. For the BRF, the permittee is subject to all applicable provisions of F.A.C. Chapters 17-2 and 17-4 and 40 CFR (July, 1990 version).

2. The BRF is permitted to operate a maximum of 8300 hrs/yr.

3. The BRF is primarily fired on natural gas at a maximum heat input of 185 x 10^6 Btu/hr (1.78 x 10^5 ft^3); however, the BRF is permitted to fire No. 4 fuel oil at a maximum heat input of 185 x 10^6 Btu/hr (1.25 x 10^3 gals/hr). The No. 4 fuel oil will be limited to a maximum sulfur content of 0.7%, by weight. The BRF is permitted to fire No. 4 fuel oil for up to 350 hrs/yr.

4. The maximum total process input and product rates are 90 billet tons per hour (bTPH) and 440,172 bTPY steel.

5. For the BRF, pollutant emissions will be limited to the following:

Pollutant	Natural Gas	No. 4 Fuel Oil
o PM/PM_{10}:	0.3 lbs/hr; 1.2 TPY	4.9 lbs/hr; 0.9 TPY
o SO_2:	0.6 lbs/hr; 2.4 TPY	76.4 lbs/hr; 13.4 TPY
o NOx:	13.8 lbs/hr; 54.9 TPY	21.6 lbs/hr; 3.8 TPY
o CO:	3.5 lbs/hr; 13.9 TPY	3.5 lbs/hr; 0.6 TPY
o HC:	0.3 lbs/hr; 1.2 TPY	0.7 lbs/hr; 0.1 TPY
o VE:	less than 20% opacity	less than 20% opacity

Note: For the pollutant emission calculations, the permitted hours of operation are 8300 hrs/yr and based on the following:
- o Natural Gas: 7950 hrs/yr.
- o No. 4 Fuel Oil: 350 hrs/yr.
- o Maximum heat input for all fuels is 185 x 10^6 Btu/hr.

6. For testing purposes and NSPS applicability purposes, the maximum product rate of the BRF is 90 bTPH steel. For PSD purposes, the maximum product rate of the BRF is 440,172 bTPY steel.

SPECIFIC CONDITIONS:

7. Test methods and procedures shall be in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A:

a. Natural Gas firing

(1) The initial and subsequent compliance tests for particulate matter (PM/PM_{10}) emissions and VE shall be conducted using EPA Methods 5 and 9, respectively. The compliance tests shall be conducted concurrently, unless inclement weather interferes.

(2) Other test methods may be used only if prior Departmental approval has been granted in writing pursuant to F.A.C. Rule 17-2.700(3).

b. No. 4 Fuel Oil firing

(1) For verification purposes and one time test requirement to establish the actual emissions/emission rate, compliance tests for particulate matter (PM/PM_{10}) emissions and VE shall be conducted using EPA Methods 5 and 9, respectively. The compliance tests shall be conducted concurrently, unless inclement weather interferes.

(2) For verification purposes and one time test requirement to establish the actual emissions/emission rate(s), compliance tests for SO_2, NOx, CO and VOC shall be conducted using EPA Methods 6, 7, 10 and 25A, respectively.

(3) Other test methods may be used only if prior Departmental approval has been granted in writing pursuant to F.A.C. Rule 17-2.700(3).

(4) The above compliance tests are to be conducted the next time that No. 4 fuel oil is being fired in the BRF.

8. For the BRF, the permittee is subject to all applicable provisions of F.A.C. Rules 17-2.240: Circumvention; 17-2.250: Excess Emissions; 17-2.700: Stationary Point Source Emission Test Procedures; and, 17-4.130: Plant Operations-Problems.

9. Objectionable odors shall not be allowed off plant property in accordance with F.A.C. Rule 17-2.620(2).

10. The Duval County Bio-Environmental Services Division (BESD) office shall be notified in writing at least 15 days prior to

SPECIFIC CONDITIONS:

compliance testing in accordance with F.A.C. Rule 17-2.700(2). The test report(s) shall be submitted to the BESD office no later than 45 days after the last sampling run of each test is completed in accordance with F.A.C. Rule 17-2.700(7).

11. Any change to the BRF pursuant to F.A.C. Rule 17-2.100, Definitions-Modification, the permittee shall submit an application and the appropriate processing fee to the Department's Bureau of Air Regulation office.

12. This permit supercedes all other permits issued for the BRF.

13. A log book shall be maintained recording, at a minimum, the date(s) and the beginning and ending "clock time(s)" of operation while firing No. 4 fuel oil.

14. An annual operation report shall be submitted to the BESD office by March 1 of each calendar year reporting, at a minimum, the total quantity of No. 4 fuel oil used (including the fuel oil analyses from the vendor(s)) and the total throughput of billet tons of steel.

15. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation prior to 60 days before the expiration date of the permit (F.A.C. Rule 17-4.090).

16. An application for an operation permit must be submitted to the Department's Northeast District office at least 90 days prior to the expiration date of this construction permit. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed while noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rules 17-4.055 and 17-2.220).

Issued this _____ day
of _____, 1991
STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

_____
STEVE SMALLWOOD, Director
Division of Air Resources

Florida Department of Environmental Regulation
Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400
Lawton Chiles, Governor
Carol M. Browner, Secretary

PERMITTEE:
Florida Steel Corporation
P. O. Box 518
Baldwin, Florida 32234

Permit Number: AC 16-193734
Expiration Date: May 31, 1992
County: Duval
Latitude/Longitude: 30°16'53"N
81°58'50"W
Project: Electric Arc Furnace and Associated Baghouse Control Systems

This permit is issued under the provisions of Chapter 403, Florida Statutes, Florida Administrative Code (F.A.C.) Chapters 17-2 and 17-4, and 40 CFR (July, 1990 version). The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the modification of the electric arc furnace (EAF), and associated baghouse control systems (Nos. 1-2, 3 & 4), to allow an increase in the hours of operation and the pollutant emissions. The EAF will have maximum total process input and product rates of 145,262 lbs/hr raw material and 65 billet tons/hr steel, respectively. The EAF is fired on natural gas. The baghouse control systems have a combined average flow rate of 532,268 dscfm; also, the baghouses have a design efficiency of +99% for particulate matter (PM/PM_{10}) of submicron size. The project will occur at the permittee's facility located at 7973 Rebar Road in Baldwin, Duval County, Florida. The UTM coordinates are Zone 17, 405.7 km East and 3350.2 km North.

The Standard Classification Codes are: Steel Production - 3312

o	EAF: stack	3-03-009-04	Tons Produced
o	EAF: charging	3-03-009-06	Tons Produced
o	EAF: tapping	3-03-009-07	Tons Produced

The source shall be constructed/modified in accordance with the permit application, plans, documents, amendments, drawings, and supplementary information, except as otherwise noted in the General and Specific Conditions.

Attachments to be Incorporated:

1. Application to Construct Air Pollution Sources, DER Form 17-1.202(1), received March 12, 1991.
2. Technical Evaluation and Preliminary Determination dated May 22, 1991.

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, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these 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), Florida Statutes, 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 acknowledgement 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 not 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 permittee 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 or 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.

GENERAL CONDITIONS:

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 records 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.

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 noncompliance, 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.

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 proscribed by Sections 403.73 and 403.111, Florida Statutes. 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,

GENERAL CONDITIONS:

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 Florida Administrative Code Rules 17-4.120 and 17-30.300, 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) Compliance with Standards of Performance for New Stationary Sources (NSPS), 40 CFR 60, Subpart AA.

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 measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

GENERAL CONDITIONS:

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:

1. For the EAF, the permittee is subject to all applicable provisions of F.A.C. Chapters 17-2 and 17-4 and 40 CFR (July, 1990 version).

2. The EAF is permitted to operate a maximum of 7872 hrs/yr.

3. The maximum total process input rates of raw materials are 145,262 lbs/hr and 483,705 TPY. The maximum product rates of billet steel are 65 tons/hr and 440,172 TPY.

4. From the baghouse systems (Nos. 1-2, 3 & 4), the total pollutant emissions shall not exceed the following:

o PM/PM_{10}:	21.8 lbs/hr;	85.8 TPY
o CO:	58.5 lbs/hr;	198.3 TPY
o SO_2:	20.0 lbs/hr;	67.8 TPY
o NOx:	1.1 lbs/hr;	3.7 TPY

Note: Pollutant emissions are based on:

a. Hourly
   - o PM/PM_{10}: Permittee's request pursuant to F.A.C. Rule 17-2.510(2)(d)5.
   - o All others: 65 bTPH steel product rate (AP-42 Emission Factors).

b. Annual
   - o PM/PM_{10}: 7872 hrs/yr operation.
   - o All others: 440,172 bTPY steel product rate.

5. Visible emissions (VE) shall not exceed the following:

- o 3% opacity from the baghouse systems (Nos. 1-2, 3 & 4);
- o From the shop roof:
  - o 20% opacity during charging; and,
  - o 40% opacity during tapping.

6. For testing purposes and NSPS applicability purposes, the maximum product rate of the EAF is 65 bTPH steel. For PSD purposes, the maximum product rate of the EAF will be 440,172 bTPY steel.

SPECIFIC CONDITIONS:

7. Test methods and procedures shall be in accordance with 40 CFR 60.275 and F.A.C. Rule 17-2.700:

a. The initial and subsequent compliance tests for particulate matter (PM/PM_{10}) emissions and VE shall be conducted using EPA Methods 5 and 9, respectively (40 CFR 60, Appendix A). The compliance tests shall be conducted concurrently, unless inclement weather interferes.

b. For verification purposes and one time test requirement to establish the actual emissions/emission rate(s), compliance tests for NOx and CO shall be conducted using EPA Methods 7 and 10, respectively.

c. Other test methods may be used only if prior Departmental approval has been granted in writing pursuant to F.A.C. Rule 17-2.700(3).

8. Emission monitoring shall be in accordance with 40 CFR 60.273, which includes the requirement for the installation, calibration, maintenance, and operation of a continuous monitoring system for the measurement of the opacity of emissions into the atmosphere.

9. Monitoring of emissions shall be in accordance with 40 CFR 60.274.

10. Recording keeping and recording requirements shall be in accordance with 40 CFR 60.276.

11. For the EAF, the permittee is subject to all applicable provisions of F.A.C. Rules 17-2.240: Circumvention; 17-2.250: Excess Emissions; 17-2.660: NSPS; 17-2.700: Stationary Point Source Emission Test Procedures; and, 17-4.130: Plant Operations-Problems.

12. Objectionable odors shall not be allowed off plant property in accordance with F.A.C. Rule 17-2.620(2).

13. The Duval County Bio-Environmental Services Division (BESD) office shall be notified in writing at least 15 days prior to compliance testing in accordance with F.A.C. Rule 17-2.700(2). The test report(s) shall be submitted to the BESD office no later than 45 days after the last sampling run of each test is completed in accordance with F.A.C. Rule 17-2.700(7).

14. Any change to the EAF pursuant to F.A.C. Rule 17-2.100, Definitions-Modification, the permittee shall submit an application and the appropriate processing fee to the Department's Bureau of Air Regulation office.

SPECIFIC CONDITIONS:

15. This permit supercedes all other permits issued for the EAF.

16. An annual operation report shall be submitted to the BESD office by March 1 of each calendar year reporting, at a minimum, the annual quantity of natural gas fired and the billet tons of steel product.

17. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation prior to 60 days before the expiration date of the permit (F.A.C. Rule 17-4.090).

18. An application for an operation permit must be submitted to the Department's Northeast District office at least 90 days prior to the expiration date of this construction permit. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed while noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rules 17-4.055 and 17-2.220).

Issued this _____ day
of _____, 1991
STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

_____
STEVE SMALLWOOD, Director
Division of Air Resources
Management

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

$1,000 pd. 3-12-91 Receipt #151254

AC 16-193733

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Billet Reheat Furnace [ ] New[1] [XX] Existing[1]

APPLICATION TYPE: [X] Construction [ ] Operation [ ] Modification

COMPANY NAME: Florida Steel Corporation, Baldwin Mill Division COUNTY: Duval

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) Billet Reheat Furnace

SOURCE LOCATION: Street 7973 Rebar Road City Baldwin

UTM: East 7405.700 North 3350.200

Latitude ____° ____' ____"N Longitude ____° ____' ____"W

APPLICANT NAME AND TITLE: Alton W. Davis, Division Manager

APPLICANT ADDRESS: Florida Steel Corporation, P. O. Box 518, Baldwin, FL 32234

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Florida Steel Corp.

I certify that the statements made in this application for an amended construction permit are true, correct and complete to the best of my knowledge and belief. Further I agree to maintain and operate the pollution control source and pollution contro facilities in such a manner as to comply with the provision of Chapter 403, Florid Statutes, and all the rules and regulations of the department and revisions thereof. also understand that a permit, if granted by the department, will be non-transferabl and I will promptly notify the department upon sale or legal transfer of the permitte establishment.

*Attach letter of authorization

Signed: Alton W. Davis

Alton W. Davis, Division Manager
Name and Title (Please Type)

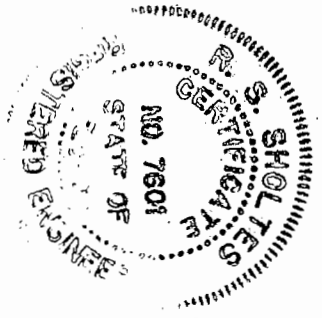
Date: 3-11-91 Telephone No. (904) 266-4261

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project hav been designed/examined by me and found to be in conformity with modern engineerin principles applicable to the treatment and disposal of pollutants characterized in th permit application. There is reasonable assurance, in my professional judgment, tha

[1] See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.



Signed Robert S. Sholtes

Robert S. Sholtes
Name (Please Type)

Robert S. Sholtes, P.A.
Company Name (Please Type)

1213 NW 6th Street, Gainesville, FL 32601-2216
Mailing Address (Please Type)

Florida Registration No. 7601 Date: _____ Telephone No. (904) 374-4439

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

See Attached

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction Not Applicable Completion of Construction _____

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

AC16-47926 and AO16-135272

E. Requested permitted equipment operating time: hrs/day_____; days/wk_____; wks/yr_____;

if power plant, hrs/yr_____; if seasonal, describe: As noted in the attached materials

F. If this is a new source or major modification, answer the following questions. (Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? _____

   a. If yes, has "offset" been applied? _____

   b. If yes, has "Lowest Achievable Emission Rate" been applied? _____

   c. If yes, list non-attainment pollutants. _____

2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. _____

3. Does the State "Prevention of Significant Deterioriation" (PSD) requirement apply to this source? If yes, see Sections VI and VII. _____

4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? _____

5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? _____

H. Do "Reasonably Available Control Technology" (RACT) requirements apply to this source? NO

   a. If yes, for what pollutants? _____

   b. If yes, in addition to the information required in this form, any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justification for any answer of "No" that might be considered questionable.

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable:

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
SAME AS EXISTING	PERMITS			

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): 180,000 lbs/hr maximum

2. Product Weight (lbs/hr): 180,000 lbs/hr maximum

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission[1]		Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emission lbs/hr		Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr		Gas	Oil	lbs/yr	T/yr	
Particulate	8.76	2.0	NA	0.53	8.76			
SO_2	137.55	0.25	NA	0.11	137.6			
NOx	38.8	57.4	NA	24.9	38.8			
CO	6.26	14.4	NA	6.23	6.26			
HC	1.25	1.2	NA	0.54	1.25			

[1]See Section V, Item 2.

[2]Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

[3]Calculated from operating rate and applicable standard.

[4]Emission, if source operated without control (See Section V, Item 3).

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
None				

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Natural Gas	1.1×10^5 ft^3	1.78×10^5 ft^3	185×10^6 BTU/Hr
#4 Fuel Oil	Not used recently	1.25×10^3 gal/hr	185×10^6 BTU/Hr

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis: Oil (Note that oil firing is considered a stand-by capability)

Percent Sulfur: Up to 0.7 Percent Ash: 0.10%

Density: Approx. 7.5 lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: 18,800 BTU/lb 148,000 BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average _____ Maximum _____

G. Indicate liquid or solid wastes generated and method of disposal.

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):
REMAINS AS CURRENTLY PERMITTED

Stack Height: _____ ft. Stack Diameter: _____ ft.

Gas Flow Rate: _____ ACFM _____ DSCFM Gas Exit Temperature: _____ °F.

Water Vapor Content: _____ % Velocity: _____ FPS

SECTION IV: INCINERATOR INFORMATION

Type of Waste	Type 0 (Plastics)	Type I (Rubbiah)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq.& Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____

Manufacturer _____

Date Conatructed _____ Model No. _____

	Volume $(ft)^3$	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diamter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: [ ] Cyclone [ ] Wet Scrubber [ ] Afterburner

[ ] Other (specify) _____

Brief description of operating characteristics of control devices: _____

_____

_____

_____

_____

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

_____

_____

_____

_____

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]

2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.

3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).

4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)

5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).

6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.

7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).

8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.

10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

[ ] Yes [ ] No

Contaminant	Rate or Concentration

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)

[ ] Yes [ ] No

Contaminant	Rate or Concentration

C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration

D. Describe the existing control and treatment technology (if any).

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter: ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

10. Reason for selection and description of systems:

[1]Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

A. Company Monitored Data

1. _____no. sites _____ TSP _____( ) SO^{2}* _____ Wind spd/dir

Period of Monitoring _____/_____/_____ to _____/_____/_____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

*Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

a. Was instrumentation EPA referenced or its equivalent? [ ] Yes [ ] No

b. Was instrumentation calibrated in accordance with Department procedures?

[ ] Yes [ ] No [ ] Unknown

B. Meteorological Data Used for Air Quality Modeling

1. _____ Year(s) of data from _____/_____/_____ to _____/_____/_____
month day year month day year

2. Surface data obtained from (location)_____

3. Upper air (mixing height) data obtained from (location)_____

4. Stability wind rose (STAR) data obtained from (location)_____

C. Computer Models Used

1. _____ Modified? If yes, attach description.

2. _____ Modified? If yes, attach description.

3. _____ Modified? If yes, attach description.

4. _____ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate	
TSP	_____	grams/sec
SO^2	_____	grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.

FLORIDA STEEL CORP - BALDWIN PERMIT

SECTION II: GENERAL PROJECT INFORMATION

A. The purpose of this Application is to fulfill the suggestions made by Mr. Bruce Mitchell of the Florida Department of Environmental Regulation (FDER), in a meeting on February 26, 1991, concerning the renewal of the Electric Arc Furnace permit for Florida Steel Corporation in Baldwin. The ultimate objective desired by Florida Steel Corporation in submitting this Application is to enable amendments or changes to be made to Construction Permit AC16-41114 and AC16-47926 (Billet Reheat Furnace).

The amendments or changes sought by Florida Steel Corporation concern several aspects of the applicable Operating and Construction Permits for the Electric Arc Furnace and Billet Reheat Furnace. These aspects are as follows:

1. A revised emission limit for particulate matter is sought which will reflect the mass emissions from baghouses 3 and 4 which were added to the facility in 1986.

2. A revised permit limit on operating hours for the electric arc furnace is sought.

3. A revised permit limit on reheat furnace operating hours is sought, in association with permit revisions to recognize primarily natural gas firing.

With regard to 1, Florida Steel Corporation installed two additional baghouse filter systems at the Baldwin Plant, having transferred these units from a deactivated plant in south Florida; these units coming on-line in February, 1986. The purpose of these additional baghouses was to enhance the collection and control of fugitive emissions in the melt shop building. Traditionally, fugitive emissions from this type of facility are not quantitatively controlled in the permits issued to the facility, thus, this emission does not quantitatively appear anywhere in the permits. The original baghouse had a permit emission limit of 13.1 pounds per hour which was calculated on the basis of the New Source Performance Standard (NSPS) emission limit of 0.0052 grains per dry standard cubic feet and a design air flow rate of 294,000 SCFMD. None of the permits issued or contemplated for this facility have stipulated an emission limit for particulate matter which is different from this original value even though proposed renewal permits recognize the existence of the additional Nos. 3 and 4 baghouses. Florida Steel Corporation contends that the two additional baghouses are entitled to some permitted emission rate, logically a rate based on the NSPS concentration limit, and further feels that it is unrealistic to restrict the combined three baghouses to a mass emission limit based on the existence of only one baghouse (the original unit). With the additional baghouse capacity, the air flow rate through these units has approximately doubled in total volume and therefore it is unrealistic to issue a permit that would only allow the mass emissions assigned to the original baghouse alone. It is important to recognize in these deliberations that the apparent increase in permitted and measurable emissions from the three baghouses is more than

offset by a reduction in fugitive emissions from the melt shop building whatever actual quantitative value these fugitive emissions may have assumed in the past. It is emphasized that actual emissions have proven to be materially less than permitted emissions as a matter of history. The recognition of an emission limit for baghouses 3 and 4 can in no way result in increased particulate matter emissions to the environment.

In Item 2, the question of operating hours derives from the fact that in the PSD study associated with the 1981 Construction Permit (AC16-41114), it was established that maximum steel production was not to exceed 65 billet tons per hour and 440,172 billet tons per year. These types of figures are normally used in potential emission calculations and perhaps other permitting purposes. For some reason, those persons responsible for the permit preparation, divided these two numbers to arrive at a quotient of 6,773.2 hours per year as a permit operating time limitation, although a figure of 7872 hours was used in the concurrent BACT determination. As an operating time permit limit, this number is totally unrealistic inasmuch as neither this nor any similar steelmaking facility can maintain its maximum design production rate on a continuous basis. The achieved production rate in most facilities is materially less than the maximum design rate which in reality reflects a short-term production rate that might be achieved under ideal conditions. Unfortunately ideal conditions do not persist over the course of a one-year period. In the case of the Baldwin Mill, an achieved production rate of 55 to 60 tons per hours is much more realistic. Compliance with the short-term production limitations of 65 billet tons per hour and the annual production cap of 440,172 billet tons per year will assure compliance with the Air Quality Standards and Increment. Florida Steel's practice of operating in excess of this annual limitation of production hours at more realistic hourly production levels substantially lower than 65 billet tons per hour has not resulted in increased fuel utilization nor higher annual emissions of associated pollutants. Due to the method of melting and refining scrap metal, fuel utilization and the release of emissions into the atmosphere are linearly related to the steel production, not to hours of operation.

A corollary permit application for amendments to Permit AC16-47926, for the Billet Reheat Furnace is being submitted with these documents. The two need to be reviewed jointly since the computations to arrive at requested permit amendments intertwine the emissions from each source.

The specific changes being requested for the Electric Arc Furnace permit are as follows:

1. Change the hourly particulate matter emission limit from 13.1 to 21.8 pounds per hour from all baghouses.

2. Change the permit limit on operating hours from 6773.2 hours per year to 7872 hours per year.

3. Change the annual particulate matter emission limit from 44.4 tons per year to 85.8 tons per year.

It is duly noted that an apparent inconsistency exists between the permit limits of 21.8 pounds dust per hour, 7872 hours per year, 85.8 tons dust per year, 65 billet tons per hour and 440,172 billet tons per year; the latter two being retained limits from the original permit. The apparent inconsistency results from the fact that the facility cannot and does not realize a production of 65 billet tons per hour during all of its operating hours.

The specific changes being requested for the Billet Reheat Furnace are as follows:

1. Change the permit limit on operating hours from 4891 hours per year to 8300 hours per year; allowing up to 350 hours of this total to have No. 4 oil firing.

2. Revise the table of maximum allowable emissions to the values as follows:

Pt. No.	Pollutant	Pounds/Hour	Tons/Year	Opacity
02	VE			20%
	PM	8.76	2.03	
	SO_2	137.60	15.73	
	NOx	38.80	58.80	
	CO	6.26	14.40	
	HC	1.25	1.30	

Computations are attached to demonstrate that the combined Electric Arc Furnace and Reheat Furnace particulate emissions remain less than 100 tons per year.

COMPUTATIONS FOR BALDWIN PERMIT REVISIONS
FLORIDA STEEL CORPORATION

TABLE 1
EMISSION TEST SUMMARY
BAGHOUSE 1-2

Year	Flow (SCFMD)	Mass Emissions (gr/SCFD)	Pounds/Hour
1988	226,591	0.0044	8.55
1989	236,876	0.00385	7.82
1990	219,446	0.0047	8.84
Average	227,638		8.40

Present permit limit is 13.1 pounds per hour at 0.0052 gr/DSCF and therefore a flow of 293,910 or 294,000 SCFMD.

At the actual average flow and the NSPS limit of 0.0052 gr/DSCF this baghouse would emit at a rate of 10.15 pounds per hour.

TABLE 2
EMISSION TEST SUMMARY
BAGHOUSE 3

Year	Flow (SCFMD)	Mass Emissions (gr/SCFD)	Pounds/Hour
1988	163,194	0.0009	1.26
1989	159,146	0.00044	0.60
1990	158,530	0.0006	0.82
Average	160,290		0.89

At the NSPS limit of 0.0052 gr/DSCF, this average flow would emit 7.14 pounds per hour.

TABLE 3
EMISSION TEST SUMMARY
BAGHOUSE 4

Year	Flow (SCFMD)	Mass Emissions (gr/SCFD)	Pounds/Hour
1988	147,935	0.0013	1.65
1989	138,713	0.00065	0.77
1990	146,371	0.0005	0.63
Average	144,340		1.02

At the NSPS limit of 0.0052 gr/DSCF, this average flow would emit 6.43 pounds per hour.

The baghouses have a combined average flow rate of 532,268 SCFMD and if they emitted at the NSPS level of 0.0052 gr/DSCF, the combined emission would be 23.72 pounds per hour.

If the requested new operating time of 7,872 hours is assumed, the annual emission at the NSPS limit (potential) would be 93.4 tons per year.

For the last three years, the actual annual emission has been about 10.32 pounds per hour for about 7,000 hours, or 36.12 tons per year.

REHEAT FURNACE
FLORIDA STEEL CORPORATION
BALDWIN MILL

The presently permitted emissions are:

	Pounds per Hour	Tons per Year
PM	8.76	21.42
SO_2	137.55	336.38
NOx	38.80	94.89
CO	6.26	15.31
HC	1.25	3.06

All based on a permitted operating time of 4,891 hours per year and oil combustion (#4 oil).

These permitted rates derive from the 1981 PSD which gave pound per hour rates using factors obtained from AP-42 (EPA Factor Book). The annual tonnage limits then follow from 4,891 hours per year, which in turn is related to the EAF billet ton limit of 440,172 tons per year/90 tons per hour = 4,891 hours per year.

Since the plant now uses gas, new emission rates are established using the corresponding factors for gas from AP-42:

PM - 1 to 5 lb/10^6 ft^3 gas; use 3 (factor used in annual emissions reports)
SO_2 - 0.6 lb/10^6 ft^3 gas
NOx - 140 lb/10^6 ft^3 gas
CO - 35 lb/10^6 ft^3 gas
HC - 3 lb/10^6 ft^3 gas

To be consistent, use a heat release rate of 185 x 10^6 BTU per hour, as used in 1981:

185 x 10^6 BTU/hr = 1.7789 x 10^5 ft^3 gas/hr or 0.1779 x 10^6 ft^3/hour.

Using these factors and the 1981 heat rate, for a 90 tons per hour push rate the following emissions derive for gas firing;

	Pounds per Hour
PM	0.534
SO_2	0.107
NOx	24.91
CO	6.226
HC	0.534

1989 operating hours = 8,028 for 379,996 tons pushed or 47.33 tons per hour.
1990 operating hours = 8,194 for 386,490 tons pushed or 47.17 tons per hour.

For purposes of calculation assume an average push rate of 50 tons per hour; then the average over the year would be;

	GAS FIRING			OIL FIRING		Combined Firing
	Lbs/Hr	Tons/Year		Lbs/Hr	Tons/Yr	Tons/Yr
		8300 Hrs	7950 Hrs		350 Hrs	
PM	0.297	1.23	1.18	4.87	0.85	2.03
SO_2	0.594	2.47	2.36	76.4	13.37	15.73
NOx	13.84	57.44	55.01	21.6	3.78	58.79
CO	3.459	14.35	13.75	3.48	0.66	14.41
HC	0.297	1.233	1.18	0.694	0.12	1.30

with annual tons emissions based on 8,300 hours of operation of which 350 hours are assumed to be No. 4 fuel oil firing.

The new permit limits as suggested by Florida Steel for combined gas and oil firing would be, not to exceed 8300 hours per year of operation, including 350 hours per year using "new" No. 4 oil as the fuel and the remainder of fuel being natural gas.

	Pounds per Hour	Tons per Year
PM	8.76	2.03
SO_2	137.55	15.73
NOx	38.80	58.79
CO	6.26	14.41
HC	1.25	1.30

The combined electric arc furnace and reheat furnace particulate emissions can then be summarized as follows:

EAF	85.80 tpy
Reheat Gas	1.18 tpy
Reheat Oil	0.85 tpy
	87.83 tpy

The 86 tons per year on EAF equates to an allowable short-term permit limit of (86 x 2000)/7872 = 21.85 pounds per hour.

$1,000 pd. 3-12-91 Rcpt. #151254

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

AC16-193734

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Electric Arc Furnace [ ] New[1] [XX] Existing[1]

APPLICATION TYPE: [X] Construction [ ] Operation [ ] Modification

COMPANY NAME: Florida Steel Corporation, Baldwin Mill Division COUNTY: Duval

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) Nos. 3 & 4 Baghouse

SOURCE LOCATION: Street 7973 Rebar Road City Baldwin

UTM: East 7405.700 North 3350.200

Latitude ____° ____' ____"N Longitude ____° ____' ____"W

APPLICANT NAME AND TITLE: Alton W. Davis, Division Manager

APPLICANT ADDRESS: Florida Steel Corporation, P. O. Box 518, Baldwin, FL 32234

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Florida Steel Corp.

I certify that the statements made in this application for an amended construction permit are true, correct and complete to the best of my knowledge and belief. Further I agree to maintain and operate the pollution control source and pollution contro facilities in such a manner as to comply with the provision of Chapter 403, Florid Statutes, and all the rules and regulations of the department and revisions thereof. also understand that a permit, if granted by the department, will be non-transferabl and I will promptly notify the department upon sale or legal transfer of the permitte establishment.

*Attach letter of authorization

Signed: Alton W. Davis

Alton W. Davis, Division Manager
Name and Title (Please Type)

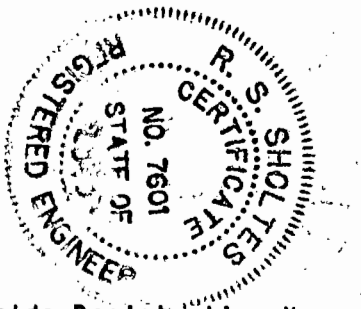
Date: 3-11-91 Telephone No. (904) 266-4261

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project hav been designed/examined by me and found to be in conformity with modern engineerin principles applicable to the treatment and disposal of pollutants characterized in th permit application. There is reasonable assurance, in my professional judgment, tha

[1] See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.



Signed Robert S. Sholtes

Robert S. Sholtes,
Name (Please Type)

Robert S. Sholtes, P.A.
Company Name (Please Type)

1213 NW 6th Street, Gainesville, FL 32601-2216
Mailing Address (Please Type)

Florida Registration No. 7601 Date: _____ Telephone No. (904) 374-4439

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

See Attached

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction Not Applicable Completion of Construction _____

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

AC16-41114 and AO16-55485

E. Requested permitted equipment operating time: hrs/day_____; days/wk_____; wks/yr_____;

if power plant, hrs/yr_____; if seasonal, describe:_____

As noted in the attached materials

F. If this is a new source or major modification, answer the following questions. (Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? _____

   a. If yes, has "offset" been applied? _____

   b. If yes, has "Lowest Achievable Emission Rate" been applied? _____

   c. If yes, list non-attainment pollutants. _____

2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. _____

3. Does the State "Prevention of Significant Deterioriation" (PSD) requirement apply to this source? If yes, see Sections VI and VII. _____

4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? _____

5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? _____

H. Do "Reasonably Available Control Technology" (RACT) requirements apply to this source? NO

   a. If yes, for what pollutants?_____

   b. If yes, in addition to the information required in this form, any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justification for any answer of "No" that might be considered questionable.

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incineratora)

A. Raw Materials and Chemicals Used in your Process, if applicable:

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
SAME AS EXISTING PERMITS				

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): 145,262 lbs/hr maximum

2. Product Weight (lbs/hr): 130,000 lbs/hr maximum

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission[1]		Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emission lbs/hr	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
SEE ATTACHED SHEETS							

[1]See Section V, Item 2.

[2]Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

[3]Calculated from operating rate and applicable standard.

[4]Emission, if source operated without control (See Section V, Item 3).

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
Baghouse No. 1-2	Particulate	99+%	50 to 0.3	Estimate
Baghouse No. 3	Particulate	99+%	50 to 0.3	Estimate
Baghouse No. 4	Particulate	99+%	50 to 0.3	Estimate

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
SAME AS EXISTING PERMITS			

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur: _____ Percent Ash: _____

Density: _____ lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average _____ Maximum _____

G. Indicate liquid or solid wastes generated and method of disposal.

Baghouse dust manifested and shipped from site as a hazardous waste.

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):
SEE ATTACHED SHEET

Stack Height: _____ ft. Stack Diameter: _____ ft.

Gas Flow Rate: _____ ACFM _____ DSCFM Gas Exit Temperature: _____ °F.

Water Vapor Content: _____ % Velocity: _____ FPS

SECTION IV: INCINERATOR INFORMATION

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq.& Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Deacription of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume $(ft)^3$	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diamter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: [ ] Cyclone [ ] Wet Scrubber [ ] Afterburner

[ ] Other (specify) _____

SECTION III. H - Emission Stack Geometry

Baghouse 1-2

Stack Height	50 feet		Stack Diameter	8 x 10 ft
Gas Flow Rate	267,558 ACFM	219,446 DSCFM	Exit Temp	176°F
Water Vapor	1.5% Vol		Velocity	55.7 ft/sec

Baghouse 3

Stack Height	40 feet		Stack Diameter	6.5 x 10 ft
Gas Flow Rate	172,456 ACFM	158,530 DSCFM	Exit Temp	93°F
Water Vapor	1.8% Vol		Velocity	44.2 ft/sec

Baghouse 4

Stack Height	40 feet		Stack Diameter	6.5 x 10 ft
Gas Flow Rate	160,078 ACFM	146,371 DSCFM	Exit Temp	96°F
Water Vapor	1.8% Vol		Velocity	41.0 ft/sec

Brief description of operating characteristics of control devices: _____

_____

_____

_____

_____

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

_____

_____

_____

_____

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]

2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.

3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).

4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)

5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).

6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.

7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).

8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.

10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

[ ] Yes [ ] No

Contaminant	Rate or Concentration

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)

[ ] Yes [ ] No

Contaminant	Rate or Concentration

C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration

D. Describe the existing control and treatment technology (if any).

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter: ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

a. Control Device: b. Operating Principles:

c. Efficiency:[1] d. Capital Cost:

e. Useful Life: f. Operating Cost:

g. Energy:[2] h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

a. Control Device: b. Operating Principles:

c. Efficiency:[1] d. Capital Costs:

e. Useful Life: f. Operating Cost:

g. Energy:[2] h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

1. Control Device: 2. Efficiency:[1]

3. Capital Cost: 4. Useful Life:

5. Operating Cost: 6. Energy:[2]

7. Maintenance Cost: 8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

10. Reason for selection and description of systems:

[1]Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

A. Company Monitored Data

1. _____no. sites _____ TSP _____( ) SO^{2}* _____ Wind spd/dir

Period of Monitoring _____/_____/_____ to _____/_____/_____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

*Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

a. Was instrumentation EPA referenced or its equivalent? [ ] Yes [ ] No

b. Was instrumentation calibrated in accordance with Department procedures?

[ ] Yes [ ] No [ ] Unknown

B. Meteorological Data Used for Air Quality Modeling

1. _____ Year(s) of data from _____/_____/_____ to _____/_____/_____
month day year month day year

2. Surface data obtained from (location)_____

3. Upper air (mixing height) data obtained from (location)_____

4. Stability wind rose (STAR) data obtained from (location)_____

C. Computer Models Used

1. _____ Modified? If yes, attach description.

2. _____ Modified? If yes, attach description.

3. _____ Modified? If yes, attach description.

4. _____ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate	
TSP	_____	grams/sec
SO^2	_____	grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.

FLORIDA STEEL CORP - BALDWIN PERMIT

SECTION II: GENERAL PROJECT INFORMATION

A. The purpose of this Application is to fulfill the suggestions made by Mr. Bruce Mitchell of the Florida Department of Environmental Regulation (FDER), in a meeting on February 26, 1991, concerning the renewal of the Electric Arc Furnace permit for Florida Steel Corporation in Baldwin. The ultimate objective desired by Florida Steel Corporation in submitting this Application is to enable amendments or changes to be made to Construction Permit AC16-41114 and AC16-47926 (Billet Reheat Furnace).

The amendments or changes sought by Florida Steel Corporation concern several aspects of the applicable Operating and Construction Permits for the Electric Arc Furnace and Billet Reheat Furnace. These aspects are as follows:

1. A revised emission limit for particulate matter is sought which will reflect the mass emissions from baghouses 3 and 4 which were added to the facility in 1986.

2. A revised permit limit on operating hours for the electric arc furnace is sought.

3. A revised permit limit on reheat furnace operating hours is sought, in association with permit revisions to recognize primarily natural gas firing.

With regard to 1, Florida Steel Corporation installed two additional baghouse filter systems at the Baldwin Plant, having transferred these units from a deactivated plant in south Florida; these units coming on-line in February, 1986. The purpose of these additional baghouses was to enhance the collection and control of fugitive emissions in the melt shop building. Traditionally, fugitive emissions from this type of facility are not quantitatively controlled in the permits issued to the facility, thus, this emission does not quantitatively appear anywhere in the permits. The original baghouse had a permit emission limit of 13.1 pounds per hour which was calculated on the basis of the New Source Performance Standard (NSPS) emission limit of 0.0052 grains per dry standard cubic feet and a design air flow rate of 294,000 SCFMD. None of the permits issued or contemplated for this facility have stipulated an emission limit for particulate matter which is different from this original value even though proposed renewal permits recognize the existence of the additional Nos. 3 and 4 baghouses. Florida Steel Corporation contends that the two additional baghouses are entitled to some permitted emission rate, logically a rate based on the NSPS concentration limit, and further feels that it is unrealistic to restrict the combined three baghouses to a mass emission limit based on the existence of only one baghouse (the original unit). With the additional baghouse capacity, the air flow rate through these units has approximately doubled in total volume and therefore it is unrealistic to issue a permit that would only allow the mass emissions assigned to the original baghouse alone. It is important to recognize in these deliberations that the apparent increase in permitted and measurable emissions from the three baghouses is more than

offset by a reduction in fugitive emissions from the melt shop building whatever actual quantitative value these fugitive emissions may have assumed in the past. It is emphasized that actual emissions have proven to be materially less than permitted emissions as a matter of history. The recognition of an emission limit for baghouses 3 and 4 can in no way result in increased particulate matter emissions to the environment.

In Item 2, the question of operating hours derives from the fact that in the PSD study associated with the 1981 Construction Permit (AC16-41114), it was established that maximum steel production was not to exceed 65 billet tons per hour and 440,172 billet tons per year. These types of figures are normally used in potential emission calculations and perhaps other permitting purposes. For some reason, those persons responsible for the permit preparation, divided these two numbers to arrive at a quotient of 6,773.2 hours per year as a permit operating time limitation, although a figure of 7872 hours was used in the concurrent BACT determination. As an operating time permit limit, this number is totally unrealistic inasmuch as neither this nor any similar steelmaking facility can maintain its maximum design production rate on a continuous basis. The achieved production rate in most facilities is materially less than the maximum design rate which in reality reflects a short-term production rate that might be achieved under ideal conditions. Unfortunately ideal conditions do not persist over the course of a one-year period. In the case of the Baldwin Mill, an achieved production rate of 55 to 60 tons per hours is much more realistic. Compliance with the short-term production limitations of 65 billet tons per hour and the annual production cap of 440,172 billet tons per year will assure compliance with the Air Quality Standards and Increment. Florida Steel's practice of operating in excess of this annual limitation of production hours at more realistic hourly production levels substantially lower than 65 billet tons per hour has not resulted in increased fuel utilization nor higher annual emissions of associated pollutants. Due to the method of melting and refining scrap metal, fuel utilization and the release of emissions into the atmosphere are linearly related to the steel production, not to hours of operation.

A corollary permit application for amendments to Permit AC16-47926, for the Billet Reheat Furnace is being submitted with these documents. The two need to be reviewed jointly since the computations to arrive at requested permit amendments intertwine the emissions from each source.

The specific changes being requested for the Electric Arc Furnace permit are as follows:

1. Change the hourly particulate matter emission limit from 13.1 to 21.8 pounds per hour from all baghouses.

2. Change the permit limit on operating hours from 6773.2 hours per year to 7872 hours per year.

3. Change the annual particulate matter emission limit from 44.4 tons per year to 85.8 tons per year.

It is duly noted that an apparent inconsistency exists between the permit limits of 21.8 pounds dust per hour, 7872 hours per year, 85.8 tons dust per year, 65 billet tons per hour and 440,172 billet tons per year; the latter two being retained limits from the original permit. The apparent inconsistency results from the fact that the facility cannot and does not realize a production of 65 billet tons per hour during all of its operating hours.

The specific changes being requested for the Billet Reheat Furnace are as follows:

1. Change the permit limit on operating hours from 4891 hours per year to 8300 hours per year; allowing up to 350 hours of this total to have No. 4 oil firing.

2. Revise the table of maximum allowable emissions to the values as follows:

Pt. No.	Pollutant	Pounds/Hour	Tons/Year	Opacity
02	VE			20%
	PM	8.76	2.03	
	SO_2	137.60	15.73	
	NOx	38.80	58.80	
	CO	6.26	14.40	
	HC	1.25	1.30	

Computations are attached to demonstrate that the combined Electric Arc Furnace and Reheat Furnace particulate emissions remain less than 100 tons per year.

COMPUTATIONS FOR BALDWIN PERMIT REVISIONS
FLORIDA STEEL CORPORATION

TABLE 1
EMISSION TEST SUMMARY
BAGHOUSE 1-2

Year	Flow (SCFMD)	Mass Emissions (gr/SCFD)	Pounds/Hour
1988	226,591	0.0044	8.55
1989	236,876	0.00385	7.82
1990	219,446	0.0047	8.84
Average	227,638		8.40

Present permit limit is 13.1 pounds per hour at 0.0052 gr/DSCF and therefore a flow of 293,910 or 294,000 SCFMD.

At the actual average flow and the NSPS limit of 0.0052 gr/DSCF this baghouse would emit at a rate of 10.15 pounds per hour.

TABLE 2
EMISSION TEST SUMMARY
BAGHOUSE 3

Year	Flow (SCFMD)	Mass Emissions (gr/SCFD)	Pounds/Hour
1988	163,194	0.0009	1.26
1989	159,146	0.00044	0.60
1990	158,530	0.0006	0.82
Average	160,290		0.89

At the NSPS limit of 0.0052 gr/DSCF, this average flow would emit 7.14 pounds per hour.

TABLE 3
EMISSION TEST SUMMARY
BAGHOUSE 4

Year	Flow (SCFMD)	Mass Emissions (gr/SCFD)	Pounds/Hour
1988	147,935	0.0013	1.65
1989	138,713	0.00065	0.77
1990	146,371	0.0005	0.63
Average	144,340		1.02

At the NSPS limit of 0.0052 gr/DSCF, this average flow would emit 6.43 pounds per hour.

The baghouses have a combined average flow rate of 532,268 SCFMD and if they emitted at the NSPS level of 0.0052 gr/DSCF, the combined emission would be 23.72 pounds per hour.

If the requested new operating time of 7,872 hours is assumed, the annual emission at the NSPS limit (potential) would be 93.4 tons per year.

For the last three years, the actual annual emission has been about 10.32 pounds per hour for about 7,000 hours, or 36.12 tons per year.

REHEAT FURNACE
FLORIDA STEEL CORPORATION
BALDWIN MILL

The presently permitted emissions are:

	Pounds per Hour	Tons per Year
PM	8.76	21.42
SO_2	137.55	336.38
NOx	38.80	94.89
CO	6.26	15.31
HC	1.25	3.06

All based on a permitted operating time of 4,891 hours per year and oil combustion (#4 oil).

These permitted rates derive from the 1981 PSD which gave pound per hour rates using factors obtained from AP-42 (EPA Factor Book). The annual tonnage limits then follow from 4,891 hours per year, which in turn is related to the EAF billet ton limit of 440,172 tons per year/90 tons per hour = 4,891 hours per year.

Since the plant now uses gas, new emission rates are established using the corresponding factors for gas from AP-42:

PM - 1 to 5 lb/10^6 ft^3 gas; use 3 (factor used in annual emissions reports)
SO_2 - 0.6 lb/10^6 ft^3 gas
NOx - 140 lb/10^6 ft^3 gas
CO - 35 lb/10^6 ft^3 gas
HC - 3 lb/10^6 ft^3 gas

To be consistent, use a heat release rate of 185 x 10^6 BTU per hour, as used in 1981:

185 x 10^6 BTU/hr = 1.7789 x 10^5 ft^3 gas/hr or 0.1779 x 10^6 ft^3/hour.

Using these factors and the 1981 heat rate, for a 90 tons per hour push rate the following emissions derive for gas firing;

	Pounds per Hour
PM	0.534
SO_2	0.107
NOx	24.91
CO	6.226
HC	0.534

1989 operating hours = 8,028 for 379,996 tons pushed or 47.33 tons per hour.
1990 operating hours = 8,194 for 386,490 tons pushed or 47.17 tons per hour.

For purposes of calculation assume an average push rate of 50 tons per hour; then the average over the year would be;

	GAS FIRING			OIL FIRING		Combined Firing
	Lbs/Hr	Tons/Year		Lbs/Hr	Tons/Yr	Tons/Yr
		8300 Hrs	7950 Hrs		350 Hrs	
PM	0.297	1.23	1.18	4.87	0.85	2.03
SO_2	0.594	2.47	2.36	76.4	13.37	15.73
NOx	13.84	57.44	55.01	21.6	3.78	58.79
CO	3.459	14.35	13.75	3.48	0.66	14.41
HC	0.297	1.233	1.18	0.694	0.12	1.30

with annual tons emissions based on 8,300 hours of operation of which 350 hours are assumed to be No. 4 fuel oil firing.

The new permit limits as suggested by Florida Steel for combined gas and oil firing would be, not to exceed 8300 hours per year of operation, including 350 hours per year using "new" No. 4 oil as the fuel and the remainder of fuel being natural gas.

	Pounds per Hour	Tons per Year
PM	8.76	2.03
SO_2	137.55	15.73
NOx	38.80	58.79
CO	6.26	14.41
HC	1.25	1.30

The combined electric arc furnace and reheat furnace particulate emissions can then be summarized as follows:

EAF	85.80 tpy
Reheat Gas	1.18 tpy
Reheat Oil	0.85 tpy
	87.83 tpy

The 86 tons per year on EAF equates to an allowable short-term permit limit of (86 x 2000)/7872 = 21.85 pounds per hour.

Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

May 24, 1991

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. Alton W. Davis
Division Manager
Florida Steel Corporation
Baldwin Mill Division
7973 Rebar Road
Post Office Box 518
Baldwin, Florida 32234

Dear Mr. Davis:

Attached is one copy of the Technical Evaluation and Preliminary Determination and proposed permits to modify the existing electric arc furnace and the billet reheat furnace. The modification will allow an increase in the permitted hours of operation and the pollutant emissions.

Please submit any written comments you wish to have considered concerning the Department's proposed action to Mr. Barry Andrews of the Bureau of Air Regulation.

Sincerely,

C. H. Fancy, P.E.
Chief
Bureau of Air Regulation

CHF/BM/bm

Attachments

c: A. Kutyna, NE District
R. S. Sholtes, P.E., RSS
J. Alves, Esq., HBG&S
R. Roberson, BESD

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of
Application for Permits by:

Florida Steel Corporation
7973 Rebar Road
Baldwin, Florida 32234

DER File Nos. AC 16-193733
AC 16-193734

INTENT TO ISSUE

The Department of Environmental Regulation hereby gives notice of its intent to issue air construction permits (copies attached) for the proposed project as detailed in the applications specified above. The Department is issuing this Intent to Issue for the reasons stated in the attached Technical Evaluation and Preliminary Determination.

The applicant, Florida Steel Corporation, applied on March 12, 1991, to the Department of Environmental Regulation for permits to modify the electric arc furnace and the billet reheat furnace, which will allow an increase in the permitted hours of operation and the pollutant emissions.

The Department has permitting jurisdiction under Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-2 and 17-4. The project is not exempt from permitting procedures. The Department has determined that air construction permits are required for the proposed work.

Pursuant to Section 403.815, F.S. and DER Rule 17-103.150, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Intent to Issue Permits. The notice shall be published one time only within 30 days, in the legal ad section of a newspaper of general circulation in the area affected. For the purpose of this rule, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. The applicant shall provide proof of publication to the Department, at the address specified within seven days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permits.

The Department will issue the permits with the attached conditions unless a petition for an administrative proceeding (hearing) is filed pursuant to the provisions of Section 120.57, F.S.

Any person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the permit applicant and the parties listed below must be filed within 14 days of receipt of this intent. Petitions filed by other persons must be filed within 14 days of publication of the public notice or within 14 days of receipt of this intent, whichever first occurs. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information;

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;

(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;

(d) A statement of the material facts disputed by Petitioner, if any;

(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and,

(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the applications have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office in General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this

proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

C. H. Fancy, P.E.
Chief
Bureau of Air Regulation

Copies furnished to:

A. Kutyna, NE District
R. S. Sholtes, P.E., RSS
J. Alves, Esq., HBG&S

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF INTENT TO ISSUE and all copies were mailed before the close of business on 5-24-91.

FILING AND ACKNOWLEDGEMENT
FILED, on this date, pursuant to §120.52(9), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Clerk

5-24-91
Date

State of Florida
Department of Environmental Regulation
Notice of Intent to Issue

The Department of Environmental Regulation hereby gives notice of its intent to issue permits to Florida Steel Corporation, 7973 Rebar Road, Baldwin, Duval County, Florida 32234, to modify the electric arc furnace and billet reheat furnace, which will allow an increase in the permitted hours of operation and the pollutant emissions. A determination of Best Available Control Technology (BACT) was not required. The Department is issuing this Intent to Issue for the reasons stated in the Technical Evaluation and Preliminary Determination.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within fourteen (14) days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information:

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
(d) A statement of the material facts disputed by Petitioner, if any;
(e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
(f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and,
(g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the applications have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

The applications are available for public inspection during business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

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

Department of Environmental Regulation
Northeast District
7825 Baymeadows Way
Jacksonville, Florida 32256-7577

Duval County Bio-Environmental Services Division
421 West Church Street
Suite 412
Jacksonville, Florida 32202-4111

Any person may send written comments on the proposed action to Mr. Barry Andrews at the Department's Tallahassee address. All comments mailed within 14 days of the publication of this notice will be considered in the Department's final determination.

Technical Evaluation
and
Preliminary Determination

Florida Steel Corporation
Duval County
Baldwin, Florida

Construction Permit Nos. AC 16-193733
AC 16-193734

Department of Environmental Regulation
Division of Air Resources Management
Bureau of Air Regulation

May 22, 1991

I. Application

A. Applicant

Florida Steel Corporation
7973 Rebar Road
Post Office Box 518
Baldwin, Florida 32234

B. Project and Location

The applicant has applied for construction permits for modifications to the electric arc furnace (EAF) and the billet reheat furnace (BRF), which will allow an increase in the permitted hours of operation and pollutant emissions. The project will occur at the applicant's facility located in Duval County. The UTM Coordinates are Zone 17, 405.7 km East and 3,350.2 km North.

C. Process and Controls

1. EAF

The EAF is used for melting and refining scrap steel and the finished product is tapped/poured into steel billets. The emissions of particulate matter (PM) and visible emissions (VE) are controlled by associated baghouse control systems Nos. 1-2 (originally Nos. 1 & 2 (1981)), 3 and 4 (1985-86). Baghouse control systems Nos. 3 and 4 were installed for better PM emissions and VE control.

The primary fuel is natural gas.

2. BRF

The BRF is used to reheat the steel billets for rolling into concrete reinforcing bar. There is no control system associated with this operation.

The primary fuel is natural gas, while limited use of No. 4 fuel oil (FO) will be permitted (1.25×10^3 gals/hr (185×10^6 Btu/hr heat input)). The No. 4 FO shall not exceed a maximum sulfur content of 0.7%, by weight.

D. The Source Classification Codes are:

o EAF: Stack	3-03-009-04	Tons Produced
o EAF: Charging	3-03-009-06	Tons Produced
o EAF: Tapping	3-03-009-07	Tons Produced
o BRF	3-03-009-33	Tons Produced

II. Rule Applicability

The proposed project is subject to preconstruction review pursuant to Chapter 403, Florida Statutes, Florida Administrative Code (F.A.C.) Rules 17-2 and 17-4, and 40 CFR 60 (July, 1990 version).

The application package was deemed complete on March 12, 1991.

The facility is located in an area of influence of Duval County's PM maintenance area and PM_{10} unclassifiable area and is in a maintenance area for ozone pursuant to Part IV, F.A.C. Rule 17-2.

The facility will be a minor emitting facility for all pollutants in accordance with F.A.C. Rule 17-2.100, Definitions. Since the EAF and BRF have not been physically modified, then the sources are under the provisions of F.A.C. Rules 17-2.500(2)(g) and 17-2.510(2)(d)5., Relaxations of Restrictions on Pollutant Emitting Capacity. Also, the modifications will not impose emissions New Source Review pursuant to F.A.C. Rules 17-2.500, Prevention of Significant Deterioration (PSD), and 17-2.510, Nonattainment Areas. The potential emissions will be reviewed in accordance with F.A.C. Rule 17-2.520, Sources Not Subject to PSD or Nonattainment Requirements.

The EAF and BRF are subject to the applicable provisions of F.A.C. Rules 17-2.240: Circumvention; 17-2.250: Excess Emissions; 17-2.620(2): General Pollutant Emission Limiting Standards-Objectionable Odors; 17-2.660: Standards of Performance for New Stationary Sources; and, 17-2.700: Stationary Point Source Emission Test Procedures. All applicable provisions of the 40 CFR shall be in accordance with the July, 1990 version.

For the BRF, a log book shall be maintained recording, at a minimium, the date(s) and the beginning and ending "clock time(s)" of operation while firing No. 4 FO. The annual quantity of No. 4 FO consumed shall be reported to the Duval County's Bio-Environmental Services Division (BESD) in an annual operating report by March 1 of each calendar year.

III. Emission Limitations and Air Quality Analysis

A. Emission Limitations

For the EAF, particulate matter (PM/PM_{10}) will be limited to a maximum of 21.8 lbs/hr (85.8 TPY). The permitted hours of operation will be limited to 7872 hrs/yr. Because the other pollutant emissions are based on billet steel production (90 billet tons/hr; 440,172 billet tons/yr), which is not changing, then the previously permitted pollutant emission limits/rates will not be changed.

For the BRF, pollutant emissions will be limited to the following:

Pollutant	Natural Gas	No. 4 Fuel Oil
o PM/PM_{10}:	0.3 lbs/hr; 1.2 TPY	4.9 lbs/hr; 0.9 TPY
o SO_2:	0.6 lbs/hr; 2.4 TPY	76.4 lbs/hr; 13.4 TPY
o NOx:	13.8 lbs/hr; 54.9 TPY	21.6 lbs/hr; 3.8 TPY
o CO:	3.5 lbs/hr; 13.9 TPY	3.5 lbs/hr; 0.6 TPY
o HC:	0.3 lbs/hr; 1.2 TPY	0.7 lbs/hr; 0.1 TPY
o VE:	less than 20% opacity	less than 20% opacity

Note: For the pollutant emission calculations, the permitted hours of operation are 8300 hrs/yr and based on the following:

- o Natural Gas: 7950 hrs/yr.
- o No. 4 Fuel Oil: 350 hrs/yr.
- o Maximum heat input for all fuels is 185 x 10^6 Btu/hr.

B. Air Quality Analysis

Based on a technical evaluation of the application package, an air quality analysis was not required.

IV. Conclusion

Based on the information provided by Florida Steel Corporation, the Department has reasonable assurance that the proposed project, to acquire construction permits for modifications to the EAF and the BRF to allow an increase in the permitted hours of operation and pollutant emissions, as described in this evaluation, and subject to the conditions proposed herein, will not cause or contribute to a violation of any air quality standard, PSD increment, or any other technical provision of Chapter 17-2 of the Florida Administrative Code.

Barry D. Andrews
#36624
5-22-91

Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

PERMITTEE:
Florida Steel Corporation
P. O. Box 518
Baldwin, Florida 32234

Permit Number: AC 16-193733
Expiration Date: May 31, 1992
County: Duval
Latitude/Longitude: 30°16'53"N
81°58'50"W
Project: Billet Reheat Furnace

This permit is issued under the provisions of Chapter 403, Florida Statutes, Florida Administrative Code (F.A.C.) Chapters 17-2 and 17-4, and 40 CFR (July, 1990 version). The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the modification of the billet reheat furnace (BRF) to allow an increase in the hours of operation and the pollutant emissions. The BRF will be fired primarily on natural gas, but will be allowed up 350 hrs/yr to fire No. 4 fuel oil at a maximum heat input of 185 x 10^6 Btu/hr. The No. 4 fuel oil will be limited to a maximum sulfur content of 0.7%, by weight. There is no control system associated with the BRF operation. The project will occur at the permittee's facility located at 7973 Rebar Road in Baldwin, Duval County, Florida. The UTM coordinates are Zone 17, 405.7 km East and 3350.2 km North.

The Standard Classification Codes are: Steel Production - 3312

o BRF: 3-03-009-33 Tons Produced

The source shall be constructed/modified in accordance with the permit application, plans, documents, amendments, drawings, and supplementary information, except as otherwise noted in the General and Specific Conditions.

Attachments to be Incorporated:

1. Application to Construct Air Pollution Sources, DER Form 17-1.202(1), received March 12, 1991.
2. Technical Evaluation and Preliminary Determination dated May 22, 1991.

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, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these 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), Florida Statutes, 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 acknowledgement 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 not 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 permittee 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 or 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.

GENERAL CONDITIONS:

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 records 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 noncompliance, 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.

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 proscribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

GENERAL CONDITIONS:

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 Florida Administrative Code Rules 17-4.120 and 17-30.300, 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. 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 measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

GENERAL CONDITIONS:

14. 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:

1. For the BRF, the permittee is subject to all applicable provisions of F.A.C. Chapters 17-2 and 17-4 and 40 CFR (July, 1990 version).

2. The BRF is permitted to operate a maximum of 8300 hrs/yr.

3. The BRF is primarily fired on natural gas at a maximum heat input of 185 x 10^6 Btu/hr (1.78 x 10^5 ft^3); however, the BRF is permitted to fire No. 4 fuel oil at a maximum heat input of 185 x 10^6 Btu/hr (1.25 x 10^3 gals/hr). The No. 4 fuel oil will be limited to a maximum sulfur content of 0.7%, by weight. The BRF is permitted to fire No. 4 fuel oil for up to 350 hrs/yr.

4. The maximum total process input and product rates are 90 billet tons per hour (bTPH) and 440,172 bTPY steel.

5. For the BRF, pollutant emissions will be limited to the following:

Pollutant	Natural Gas	No. 4 Fuel Oil
o PM/PM_{10}:	0.3 lbs/hr; 1.2 TPY	4.9 lbs/hr; 0.9 TPY
o SO_2:	0.6 lbs/hr; 2.4 TPY	76.4 lbs/hr; 13.4 TPY
o NOx:	13.8 lbs/hr; 54.9 TPY	21.6 lbs/hr; 3.8 TPY
o CO:	3.5 lbs/hr; 13.9 TPY	3.5 lbs/hr; 0.6 TPY
o HC:	0.3 lbs/hr; 1.2 TPY	0.7 lbs/hr; 0.1 TPY
o VE:	less than 20% opacity	less than 20% opacity

Note: For the pollutant emission calculations, the permitted hours of operation are 8300 hrs/yr and based on the following:
- o Natural Gas: 7950 hrs/yr.
- o No. 4 Fuel Oil: 350 hrs/yr.
- o Maximum heat input for all fuels is 185 x 10^6 Btu/hr.

6. For testing purposes and NSPS applicability purposes, the maximum product rate of the BRF is 90 bTPH steel. For PSD purposes, the maximum product rate of the BRF is 440,172 bTPY steel.

SPECIFIC CONDITIONS:

7. Test methods and procedures shall be in accordance with F.A.C. Rule 17-2.700 and 40 CFR 60, Appendix A:

a. Natural Gas firing

(1) The initial and subsequent compliance tests for particulate matter (PM/PM_{10}) emissions and VE shall be conducted using EPA Methods 5 and 9, respectively. The compliance tests shall be conducted concurrently, unless inclement weather interferes.

(2) Other test methods may be used only if prior Departmental approval has been granted in writing pursuant to F.A.C. Rule 17-2.700(3).

b. No. 4 Fuel Oil firing

(1) For verification purposes and one time test requirement to establish the actual emissions/emission rate, compliance tests for particulate matter (PM/PM_{10}) emissions and VE shall be conducted using EPA Methods 5 and 9, respectively. The compliance tests shall be conducted concurrently, unless inclement weather interferes.

(2) For verification purposes and one time test requirement to establish the actual emissions/emission rate(s), compliance tests for SO_2, NOx, CO and VOC shall be conducted using EPA Methods 6, 7, 10 and 25A, respectively.

(3) Other test methods may be used only if prior Departmental approval has been granted in writing pursuant to F.A.C. Rule 17-2.700(3).

(4) The above compliance tests are to be conducted the next time that No. 4 fuel oil is being fired in the BRF.

8. For the BRF, the permittee is subject to all applicable provisions of F.A.C. Rules 17-2.240: Circumvention; 17-2.250: Excess Emissions; 17-2.700: Stationary Point Source Emission Test Procedures; and, 17-4.130: Plant Operations-Problems.

9. Objectionable odors shall not be allowed off plant property in accordance with F.A.C. Rule 17-2.620(2).

10. The Duval County Bio-Environmental Services Division (BESD) office shall be notified in writing at least 15 days prior to

SPECIFIC CONDITIONS:

compliance testing in accordance with F.A.C. Rule 17-2.700(2). The test report(s) shall be submitted to the BESD office no later than 45 days after the last sampling run of each test is completed in accordance with F.A.C. Rule 17-2.700(7).

11. Any change to the BRF pursuant to F.A.C. Rule 17-2.100, Definitions-Modification, the permittee shall submit an application and the appropriate processing fee to the Department's Bureau of Air Regulation office.

12. This permit supercedes all other permits issued for the BRF.

13. A log book shall be maintained recording, at a minimum, the date(s) and the beginning and ending "clock time(s)" of operation while firing No. 4 fuel oil.

14. An annual operation report shall be submitted to the BESD office by March 1 of each calendar year reporting, at a minimum, the total quantity of No. 4 fuel oil used (including the fuel oil analyses from the vendor(s)) and the total throughput of billet tons of steel.

15. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation prior to 60 days before the expiration date of the permit (F.A.C. Rule 17-4.090).

16. An application for an operation permit must be submitted to the Department's Northeast District office at least 90 days prior to the expiration date of this construction permit. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed while noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rules 17-4.055 and 17-2.220).

Issued this _____ day
of _____, 1991
STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

_____
STEVE SMALLWOOD, Director
Division of Air Resources

Florida Department of Environmental Regulation

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

PERMITTEE:
Florida Steel Corporation
P. O. Box 518
Baldwin, Florida 32234

Permit Number: AC 16-193734
Expiration Date: May 31, 1992
County: Duval
Latitude/Longitude: 30°16'53"N
81°58'50"W
Project: Electric Arc Furnace and Associated Baghouse Control Systems

This permit is issued under the provisions of Chapter 403, Florida Statutes, Florida Administrative Code (F.A.C.) Chapters 17-2 and 17-4, and 40 CFR (July, 1990 version). The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the modification of the electric arc furnace (EAF), and associated baghouse control systems (Nos. 1-2, 3 & 4), to allow an increase in the hours of operation and the pollutant emissions. The EAF will have maximum total process input and product rates of 145,262 lbs/hr raw material and 65 billet tons/hr steel, respectively. The EAF is fired on natural gas. The baghouse control systems have a combined average flow rate of 532,268 dscfm; also, the baghouses have a design efficiency of +99% for particulate matter (PM/PM_{10}) of submicron size. The project will occur at the permittee's facility located at 7973 Rebar Road in Baldwin, Duval County, Florida. The UTM coordinates are Zone 17, 405.7 km East and 3350.2 km North.

The Standard Classification Codes are: Steel Production - 3312

o	EAF: stack	3-03-009-04	Tons Produced
o	EAF: charging	3-03-009-06	Tons Produced
o	EAF: tapping	3-03-009-07	Tons Produced

The source shall be constructed/modified in accordance with the permit application, plans, documents, amendments, drawings, and supplementary information, except as otherwise noted in the General and Specific Conditions.

Attachments to be Incorporated:

1. Application to Construct Air Pollution Sources, DER Form 17-1.202(1), received March 12, 1991.
2. Technical Evaluation and Preliminary Determination dated May 22, 1991.

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, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these 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), Florida Statutes, 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 acknowledgement 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 not 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 permittee 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 or 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.

GENERAL CONDITIONS:

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 records 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 noncompliance, 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.

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 proscribed by Sections 403.73 and 403.111, Florida Statutes. 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,

GENERAL CONDITIONS:

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 Florida Administrative Code Rules 17-4.120 and 17-30.300, 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) Compliance with Standards of Performance for New Stationary Sources (NSPS), 40 CFR 60, Subpart AA.

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 measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

GENERAL CONDITIONS:

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:

1. For the EAF, the permittee is subject to all applicable provisions of F.A.C. Chapters 17-2 and 17-4 and 40 CFR (July, 1990 version).

2. The EAF is permitted to operate a maximum of 7872 hrs/yr.

3. The maximum total process input rates of raw materials are 145,262 lbs/hr and 483,705 TPY. The maximum product rates of billet steel are 65 tons/hr and 440,172 TPY.

4. From the baghouse systems (Nos. 1-2, 3 & 4), the total pollutant emissions shall not exceed the following:

o PM/PM_{10}:	21.8 lbs/hr;	85.8 TPY
o CO:	58.5 lbs/hr;	198.3 TPY
o SO_2:	20.0 lbs/hr;	67.8 TPY
o NOx:	1.1 lbs/hr;	3.7 TPY

Note: Pollutant emissions are based on:

a. Hourly
   - o PM/PM_{10}: Permittee's request pursuant to F.A.C. Rule 17-2.510(2)(d)5.
   - o All others: 65 bTPH steel product rate (AP-42 Emission Factors).

b. Annual
   - o PM/PM_{10}: 7872 hrs/yr operation.
   - o All others: 440,172 bTPY steel product rate.

5. Visible emissions (VE) shall not exceed the following:

- o 3% opacity from the baghouse systems (Nos. 1-2, 3 & 4);
- o From the shop roof:
  - o 20% opacity during charging; and,
  - o 40% opacity during tapping.

6. For testing purposes and NSPS applicability purposes, the maximum product rate of the EAF is 65 bTPH steel. For PSD purposes, the maximum product rate of the EAF will be 440,172 bTPY steel.

SPECIFIC CONDITIONS:

7. Test methods and procedures shall be in accordance with 40 CFR 60.275 and F.A.C. Rule 17-2.700:

   a. The initial and subsequent compliance tests for particulate matter (PM/PM_{10}) emissions and VE shall be conducted using EPA Methods 5 and 9, respectively (40 CFR 60, Appendix A). The compliance tests shall be conducted concurrently, unless inclement weather interferes.

   b. For verification purposes and one time test requirement to establish the actual emissions/emission rate(s), compliance tests for NOx and CO shall be conducted using EPA Methods 7 and 10, respectively.

   c. Other test methods may be used only if prior Departmental approval has been granted in writing pursuant to F.A.C. Rule 17-2.700(3).

8. Emission monitoring shall be in accordance with 40 CFR 60.273, which includes the requirement for the installation, calibration, maintenance, and operation of a continuous monitoring system for the measurement of the opacity of emissions into the atmosphere.

9. Monitoring of emissions shall be in accordance with 40 CFR 60.274.

10. Recording keeping and recording requirements shall be in accordance with 40 CFR 60.276.

11. For the EAF, the permittee is subject to all applicable provisions of F.A.C. Rules 17-2.240: Circumvention; 17-2.250: Excess Emissions; 17-2.660: NSPS; 17-2.700: Stationary Point Source Emission Test Procedures; and, 17-4.130: Plant Operations-Problems.

12. Objectionable odors shall not be allowed off plant property in accordance with F.A.C. Rule 17-2.620(2).

13. The Duval County Bio-Environmental Services Division (BESD) office shall be notified in writing at least 15 days prior to compliance testing in accordance with F.A.C. Rule 17-2.700(2). The test report(s) shall be submitted to the BESD office no later than 45 days after the last sampling run of each test is completed in accordance with F.A.C. Rule 17-2.700(7).

14. Any change to the EAF pursuant to F.A.C. Rule 17-2.100, Definitions-Modification, the permittee shall submit an application and the appropriate processing fee to the Department's Bureau of Air Regulation office.

SPECIFIC CONDITIONS:

15. This permit supercedes all other permits issued for the EAF.

16. An annual operation report shall be submitted to the BESD office by March 1 of each calendar year reporting, at a minimum, the annual quantity of natural gas fired and the billet tons of steel product.

17. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation prior to 60 days before the expiration date of the permit (F.A.C. Rule 17-4.090).

18. An application for an operation permit must be submitted to the Department's Northeast District office at least 90 days prior to the expiration date of this construction permit. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed while noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rules 17-4.055 and 17-2.220).

Issued this _____ day
of _____, 1991
STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

_____
STEVE SMALLWOOD, Director
Division of Air Resources Management

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

AC16-193733

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Billet Reheat Furnace [ ] New[1] [XX] Existing[1]

APPLICATION TYPE: [X] Construction [ ] Operation [ ] Modification

COMPANY NAME: Florida Steel Corporation, Baldwin Mill Division COUNTY: Duval

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) Billet Reheat Furnace

SOURCE LOCATION: Street 7973 Rebar Road City Baldwin

UTM: East 7405.700 North 3350.200

Latitude ____° ____' ____"N Longitude ____° ____' ____"W

APPLICANT NAME AND TITLE: Alton W. Davis, Division Manager

APPLICANT ADDRESS: Florida Steel Corporation, P. O. Box 518, Baldwin, FL 32234

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Florida Steel Corp.

I certify that the statements made in this application for an amended construction permit are true, correct and complete to the best of my knowledge and belief. Further I agree to maintain and operate the pollution control source and pollution contro facilities in such a manner as to comply with the provision of Chapter 403, Florid Statutes, and all the rules and regulations of the department and revisions thereof. also understand that a permit, if granted by the department, will be non-transferabl and I will promptly notify the department upon sale or legal transfer of the permitte establishment.

*Attach letter of authorization

Signed: Alton W. Davis

Alton W. Davis, Division Manager
Name and Title (Please Type)

Date: 3-11-91 Telephone No. (904) 266-4261

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project hav been designed/examined by me and found to be in conformity with modern engineerin principles applicable to the treatment and disposal of pollutants characterized in th permit application. There is reasonable assurance, in my professional judgment, tha

[1] See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.

Signed Robert S. Sholtes

Robert S. Sholtes
Name (Please Type)

Robert S. Sholtes, P.A.
Company Name (Please Type)

1213 NW 6th Street, Gainesville, FL 32601-2216
Mailing Address (Please Type)

Florida Registration No. 7601 Date: _____ Telephone No. (904) 374-4439

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

See Attached

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction Not Applicable Completion of Construction _____

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

AC16-47926 and A016-135272

E. Requested permitted equipment operating time: hrs/day_____; days/wk_____; wks/yr_____;

if power plant, hrs/yr_____; if seasonal, describe: As noted in the attached materials

F. If this is a new source or major modification, answer the following questions. (Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? _____

   a. If yes, has "offset" been applied? _____

   b. If yes, has "Lowest Achievable Emission Rate" been applied? _____

   c. If yes, list non-attainment pollutants. _____

2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. _____

3. Does the State "Prevention of Significant Deterioriation" (PSD) requirement apply to this source? If yes, see Sections VI and VII. _____

4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? _____

5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? _____

H. Do "Reasonably Available Control Technology" (RACT) requirements apply to this source? NO

   a. If yes, for what pollutants?_____

   b. If yes, in addition to the information required in this form, any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justification for any answer of "No" that might be considered questionable.

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable:

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
SAME AS EXISTING PERMITS				

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): 180,000 lbs/hr maximum

2. Product Weight (lbs/hr): 180,000 lbs/hr maximum

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission[1]		Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emission lbs/hr		Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr		Gas	Oil	lbs/yr	T/yr	
Particulate	8.76	2.0	NA	0.53	8.76			
SO_2	137.55	0.25	NA	0.11	137.6			
NOx	38.8	57.4	NA	24.9	38.8			
CO	6.26	14.4	NA	6.23	6.26			
HC	1.25	1.2	NA	0.54	1.25			

[1]See Section V, Item 2.

[2]Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

[3]Calculated from operating rate and applicable standard.

[4]Emission, if source operated without control (See Section V, Item 3).

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
None				

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Natural Gas	1.1×10^5 ft^3	1.78×10^5 ft^3	185×10^6 BTU/Hr
#4 Fuel Oil	Not used recently	1.25×10^3 gal/hr	185×10^6 BTU/Hr

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis: Oil (Note that oil firing is considered a stand-by capability)

Percent Sulfur: Up to 0.7 Percent Ash: 0.10%

Density: Approx. 7.5 lbs/gal Typical Percent Nitrogen: _____

Heat Capacity: 18,800 BTU/lb 148,000 BTU/gal

Other Fuel Contaminants (which may cause air pollution): _____

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average _____ Maximum _____

G. Indicate liquid or solid wastes generated and method of disposal.

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):
REMAINS AS CURRENTLY PERMITTED

Stack Height: _____ ft. Stack Diameter: _____ ft.

Gas Flow Rate: _____ ACFM _____ DSCFM Gas Exit Temperature: _____ °F.

Water Vapor Content: _____ % Velocity: _____ FPS

SECTION IV: INCINERATOR INFORMATION

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq.& Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Deacription of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume $(ft)^3$	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diamter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: [ ] Cyclone [ ] Wet Scrubber [ ] Afterburner

[ ] Other (specify) _____

Brief description of operating characteristics of control devices: _____

_____

_____

_____

_____

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

_____

_____

_____

_____

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]

2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.

3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).

4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)

5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).

6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.

7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).

8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.

10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

[ ] Yes [ ] No

Contaminant	Rate or Concentration

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)

[ ] Yes [ ] No

Contaminant	Rate or Concentration

C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration

D. Describe the existing control and treatment technology (if any).

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter: ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

10. Reason for selection and description of systems:

[1]Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

A. Company Monitored Data

1. _____no. sites _____ TSP _____( ) SO_2* _____ Wind spd/dir

Period of Monitoring _____/_____/_____ to _____/_____/_____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

*Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

a. Was instrumentation EPA referenced or its equivalent? [ ] Yes [ ] No

b. Was instrumentation calibrated in accordance with Department procedures?

[ ] Yes [ ] No [ ] Unknown

B. Meteorological Data Used for Air Quality Modeling

1. _____ Year(s) of data from ____/____/____ to ____/____/____
month day year month day year

2. Surface data obtained from (location)_____

3. Upper air (mixing height) data obtained from (location)_____

4. Stability wind rose (STAR) data obtained from (location)_____

C. Computer Models Used

1. _____ Modified? If yes, attach description.

2. _____ Modified? If yes, attach description.

3. _____ Modified? If yes, attach description.

4. _____ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate	
TSP	_____	grams/sec
SO^2	_____	grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.

FLORIDA STEEL CORP - BALDWIN PERMIT

SECTION II: GENERAL PROJECT INFORMATION

A. The purpose of this Application is to fulfill the suggestions made by Mr. Bruce Mitchell of the Florida Department of Environmental Regulation (FDER), in a meeting on February 26, 1991, concerning the renewal of the Electric Arc Furnace permit for Florida Steel Corporation in Baldwin. The ultimate objective desired by Florida Steel Corporation in submitting this Application is to enable amendments or changes to be made to Construction Permit AC16-41114 and AC16-47926 (Billet Reheat Furnace).

The amendments or changes sought by Florida Steel Corporation concern several aspects of the applicable Operating and Construction Permits for the Electric Arc Furnace and Billet Reheat Furnace. These aspects are as follows:

1. A revised emission limit for particulate matter is sought which will reflect the mass emissions from baghouses 3 and 4 which were added to the facility in 1986.

2. A revised permit limit on operating hours for the electric arc furnace is sought.

3. A revised permit limit on reheat furnace operating hours is sought, in association with permit revisions to recognize primarily natural gas firing.

With regard to 1, Florida Steel Corporation installed two additional baghouse filter systems at the Baldwin Plant, having transferred these units from a deactivated plant in south Florida; these units coming on-line in February, 1986. The purpose of these additional baghouses was to enhance the collection and control of fugitive emissions in the melt shop building. Traditionally, fugitive emissions from this type of facility are not quantitatively controlled in the permits issued to the facility, thus, this emission does not quantitatively appear anywhere in the permits. The original baghouse had a permit emission limit of 13.1 pounds per hour which was calculated on the basis of the New Source Performance Standard (NSPS) emission limit of 0.0052 grains per dry standard cubic feet and a design air flow rate of 294,000 SCFMD. None of the permits issued or contemplated for this facility have stipulated an emission limit for particulate matter which is different from this original value even though proposed renewal permits recognize the existence of the additional Nos. 3 and 4 baghouses. Florida Steel Corporation contends that the two additional baghouses are entitled to some permitted emission rate, logically a rate based on the NSPS concentration limit, and further feels that it is unrealistic to restrict the combined three baghouses to a mass emission limit based on the existence of only one baghouse (the original unit). With the additional baghouse capacity, the air flow rate through these units has approximately doubled in total volume and therefore it is unrealistic to issue a permit that would only allow the mass emissions assigned to the original baghouse alone. It is important to recognize in these deliberations that the apparent increase in permitted and measurable emissions from the three baghouses is more than

offset by a reduction in fugitive emissions from the melt shop building whatever actual quantitative value these fugitive emissions may have assumed in the past. It is emphasized that actual emissions have proven to be materially less than permitted emissions as a matter of history. The recognition of an emission limit for baghouses 3 and 4 can in no way result in increased particulate matter emissions to the environment.

In Item 2, the question of operating hours derives from the fact that in the PSD study associated with the 1981 Construction Permit (AC16-41114), it was established that maximum steel production was not to exceed 65 billet tons per hour and 440,172 billet tons per year. These types of figures are normally used in potential emission calculations and perhaps other permitting purposes. For some reason, those persons responsible for the permit preparation, divided these two numbers to arrive at a quotient of 6,773.2 hours per year as a permit operating time limitation, although a figure of 7872 hours was used in the concurrent BACT determination. As an operating time permit limit, this number is totally unrealistic inasmuch as neither this nor any similar steelmaking facility can maintain its maximum design production rate on a continuous basis. The achieved production rate in most facilities is materially less than the maximum design rate which in reality reflects a short-term production rate that might be achieved under ideal conditions. Unfortunately ideal conditions do not persist over the course of a one-year period. In the case of the Baldwin Mill, an achieved production rate of 55 to 60 tons per hours is much more realistic. Compliance with the short-term production limitations of 65 billet tons per hour and the annual production cap of 440,172 billet tons per year will assure compliance with the Air Quality Standards and Increment. Florida Steel's practice of operating in excess of this annual limitation of production hours at more realistic hourly production levels substantially lower than 65 billet tons per hour has not resulted in increased fuel utilization nor higher annual emissions of associated pollutants. Due to the method of melting and refining scrap metal, fuel utilization and the release of emissions into the atmosphere are linearly related to the steel production, not to hours of operation.

A corollary permit application for amendments to Permit AC16-47926, for the Billet Reheat Furnace is being submitted with these documents. The two need to be reviewed jointly since the computations to arrive at requested permit amendments intertwine the emissions from each source.

The specific changes being requested for the Electric Arc Furnace permit are as follows:

1. Change the hourly particulate matter emission limit from 13.1 to 21.8 pounds per hour from all baghouses.

2. Change the permit limit on operating hours from 6773.2 hours per year to 7872 hours per year.

3. Change the annual particulate matter emission limit from 44.4 tons per year to 85.8 tons per year.

It is duly noted that an apparent inconsistency exists between the permit limits of 21.8 pounds dust per hour, 7872 hours per year, 85.8 tons dust per year, 65 billet tons per hour and 440,172 billet tons per year; the latter two being retained limits from the original permit. The apparent inconsistency results from the fact that the facility cannot and does not realize a production of 65 billet tons per hour during all of its operating hours.

The specific changes being requested for the Billet Reheat Furnace are as follows:

1. Change the permit limit on operating hours from 4891 hours per year to 8300 hours per year; allowing up to 350 hours of this total to have No. 4 oil firing.

2. Revise the table of maximum allowable emissions to the values as follows:

Pt. No.	Pollutant	Pounds/Hour	Tons/Year	Opacity
02	VE			20%
	PM	8.76	2.03	
	SO_2	137.60	15.73	
	NOx	38.80	58.80	
	CO	6.26	14.40	
	HC	1.25	1.30	

Computations are attached to demonstrate that the combined Electric Arc Furnace and Reheat Furnace particulate emissions remain less than 100 tons per year.

COMPUTATIONS FOR BALDWIN PERMIT REVISIONS
FLORIDA STEEL CORPORATION

TABLE 1
EMISSION TEST SUMMARY
BAGHOUSE 1-2

Year	Flow (SCFMD)	Mass Emissions (gr/SCFD)	Pounds/Hour
1988	226,591	0.0044	8.55
1989	236,876	0.00385	7.82
1990	219,446	0.0047	8.84
Average	227,638		8.40

Present permit limit is 13.1 pounds per hour at 0.0052 gr/DSCF and therefore a flow of 293,910 or 294,000 SCFMD.

At the actual average flow and the NSPS limit of 0.0052 gr/DSCF this baghouse would emit at a rate of 10.15 pounds per hour.

TABLE 2
EMISSION TEST SUMMARY
BAGHOUSE 3

Year	Flow (SCFMD)	Mass Emissions (gr/SCFD)	Pounds/Hour
1988	163,194	0.0009	1.26
1989	159,146	0.00044	0.60
1990	158,530	0.0006	0.82
Average	160,290		0.89

At the NSPS limit of 0.0052 gr/DSCF, this average flow would emit 7.14 pounds per hour.

TABLE 3
EMISSION TEST SUMMARY
BAGHOUSE 4

Year	Flow (SCFMD)	Mass Emissions (gr/SCFD)	Pounds/Hour
1988	147,935	0.0013	1.65
1989	138,713	0.00065	0.77
1990	146,371	0.0005	0.63
Average	144,340		1.02

At the NSPS limit of 0.0052 gr/DSCF, this average flow would emit 6.43 pounds per hour.

The baghouses have a combined average flow rate of 532,268 SCFMD and if they emitted at the NSPS level of 0.0052 gr/DSCF, the combined emission would be 23.72 pounds per hour.

If the requested new operating time of 7,872 hours is assumed, the annual emission at the NSPS limit (potential) would be 93.4 tons per year.

For the last three years, the actual annual emission has been about 10.32 pounds per hour for about 7,000 hours, or 36.12 tons per year.

REHEAT FURNACE
FLORIDA STEEL CORPORATION
BALDWIN MILL

The presently permitted emissions are:

	Pounds per Hour	Tons per Year
PM	8.76	21.42
SO_2	137.55	336.38
NOx	38.80	94.89
CO	6.26	15.31
HC	1.25	3.06

All based on a permitted operating time of 4,891 hours per year and oil combustion (#4 oil).

These permitted rates derive from the 1981 PSD which gave pound per hour rates using factors obtained from AP-42 (EPA Factor Book). The annual tonnage limits then follow from 4,891 hours per year, which in turn is related to the EAF billet ton limit of 440,172 tons per year/90 tons per hour = 4,891 hours per year.

Since the plant now uses gas, new emission rates are established using the corresponding factors for gas from AP-42:

PM - 1 to 5 lb/10^6 ft^3 gas; use 3 (factor used in annual emissions reports)
SO_2 - 0.6 lb/10^6 ft^3 gas
NOx - 140 lb/10^6 ft^3 gas
CO - 35 lb/10^6 ft^3 gas
HC - 3 lb/10^6 ft^3 gas

To be consistent, use a heat release rate of 185 x 10^6 BTU per hour, as used in 1981:

185 x 10^6 BTU/hr = 1.7789 x 10^5 ft^3 gas/hr or 0.1779 x 10^6 ft^3/hour.

Using these factors and the 1981 heat rate, for a 90 tons per hour push rate the following emissions derive for gas firing;

	Pounds per Hour
PM	0.534
SO_2	0.107
NOx	24.91
CO	6.226
HC	0.534

1989 operating hours = 8,028 for 379,996 tons pushed or 47.33 tons per hour.
1990 operating hours = 8,194 for 386,490 tons pushed or 47.17 tons per hour.

For purposes of calculation assume an average push rate of 50 tons per hour; then the average over the year would be;

	GAS FIRING			OIL FIRING		Combined Firing
	Lbs/Hr	Tons/Year		Lbs/Hr	Tons/Yr	Tons/Yr
		8300 Hrs	7950 Hrs		350 Hrs	
PM	0.297	1.23	1.18	4.87	0.85	2.03
SO_2	0.594	2.47	2.36	76.4	13.37	15.73
NOx	13.84	57.44	55.01	21.6	3.78	58.79
CO	3.459	14.35	13.75	3.48	0.66	14.41
HC	0.297	1.233	1.18	0.694	0.12	1.30

with annual tons emissions based on 8,300 hours of operation of which 350 hours are assumed to be No. 4 fuel oil firing.

The new permit limits as suggested by Florida Steel for combined gas and oil firing would be, not to exceed 8300 hours per year of operation, including 350 hours per year using "new" No. 4 oil as the fuel and the remainder of fuel being natural gas.

	Pounds per Hour	Tons per Year
PM	8.76	2.03
SO_2	137.55	15.73
NOx	38.80	58.79
CO	6.26	14.41
HC	1.25	1.30

The combined electric arc furnace and reheat furnace particulate emissions can then be summarized as follows:

EAF	85.80 tpy
Reheat Gas	1.18 tpy
Reheat Oil	0.85 tpy
	87.83 tpy

The 86 tons per year on EAF equates to an allowable short-term permit limit of (86 x 2000)/7872 = 21.85 pounds per hour.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

AC16-193734

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Electric Arc Furnace [ ] New[1] [XX] Existing[1]

APPLICATION TYPE: [X] Construction [ ] Operation [ ] Modification

COMPANY NAME: Florida Steel Corporation, Baldwin Mill Division COUNTY: Duval

Identify the specific emission point source(s) addressed in this application (i.e. Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired) Nos. 3 & 4 Baghouse

SOURCE LOCATION: Street 7973 Rebar Road City Baldwin

UTM: East 7405.700 North 3350.200

Latitude ____° ____' ____"N Longitude ____° ____' ____"W

APPLICANT NAME AND TITLE: Alton W. Davis, Division Manager

APPLICANT ADDRESS: Florida Steel Corporation, P. O. Box 518, Baldwin, FL 32234

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative* of Florida Steel Corp.

I certify that the statements made in this application for an amended construction permit are true, correct and complete to the best of my knowledge and belief. Further I agree to maintain and operate the pollution control source and pollution contro facilities in such a manner as to comply with the provision of Chapter 403, Florid Statutes, and all the rules and regulations of the department and revisions thereof. also understand that a permit, if granted by the department, will be non-transferabl and I will promptly notify the department upon sale or legal transfer of the permitte establishment.

*Attach letter of authorization

Signed: Alton W. Davis

Alton W. Davis, Division Manager
Name and Title (Please Type)

Date: 3-11-91 Telephone No. (904) 266-4261

B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (where required by Chapter 471, F.S.)

This is to certify that the engineering features of this pollution control project hav been designed/examined by me and found to be in conformity with modern engineerin principles applicable to the treatment and disposal of pollutants characterized in th permit application. There is reasonable assurance, in my professional judgment, tha

[1] See Florida Administrative Code Rule 17-2.100(57) and (104)

the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the department. It is also agreed that the undersigned will furnish, if authorized by the owner, the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.

Signed Robert S. Sholtes

Robert S. Sholtes,
Name (Please Type)

Robert S. Sholtes, P.A.
Company Name (Please Type)

1213 NW 6th Street, Gainesville, FL 32601-2216
Mailing Address (Please Type)

Florida Registration No. 7601 Date: _____ Telephone No. (904) 374-4439

SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

See Attached

B. Schedule of project covered in this application (Construction Permit Application Only)

Start of Construction Not Applicable Completion of Construction _____

C. Costs of pollution control system(s): (Note: Show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

AC16-41114 and A016-55485

E. Requested permitted equipment operating time: hrs/day_____; days/wk_____; wks/yr_____;

if power plant, hrs/yr_____; if seasonal, describe:_____

As noted in the attached materials

F. If this is a new source or major modification, answer the following questions. (Yes or No)

1. Is this source in a non-attainment area for a particular pollutant? _____

   a. If yes, has "offset" been applied? _____

   b. If yes, has "Lowest Achievable Emission Rate" been applied? _____

   c. If yes, list non-attainment pollutants. _____

2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. _____

3. Does the State "Prevention of Significant Deterioration" (PSD) requirement apply to this source? If yes, see Sections VI and VII. _____

4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? _____

5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? _____

H. Do "Reasonably Available Control Technology" (RACT) requirements apply to this source? NO

   a. If yes, for what pollutants?_____

   b. If yes, in addition to the information required in this form, any information requested in Rule 17-2.650 must be submitted.

Attach all supportive information related to any answer of "Yes". Attach any justification for any answer of "No" that might be considered questionable.

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES (Other than Incinerators)

A. Raw Materials and Chemicals Used in your Process, if applicable:

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
SAME AS EXISTING PERMITS				

B. Process Rate, if applicable: (See Section V, Item 1)

1. Total Process Input Rate (lbs/hr): 145,262 lbs/hr maximum

2. Product Weight (lbs/hr): 130,000 lbs/hr maximum

C. Airborne Contaminants Emitted: (Information in this table must be submitted for each emission point, use additional sheets as necessary)

Name of Contaminant	Emission[1]		Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emission lbs/hr	Potential[4] Emission		Relate to Flow Diagram
	Maximum lbs/hr	Actual T/yr			lbs/yr	T/yr	
SEE ATTACHED SHEETS							

[1]See Section V, Item 2.

[2]Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)

[3]Calculated from operating rate and applicable standard.

[4]Emission, if source operated without control (See Section V, Item 3).

D. Control Devices: (See Section V, Item 4)

Name and Type (Model & Serial No.)	Contaminant	Efficiency	Range of Particles Size Collected (in microns) (If applicable)	Basis for Efficiency (Section V Item 5)
Baghouse No. 1-2	Particulate	99+%	50 to 0.3	Estimate
Baghouse No. 3	Particulate	99+%	50 to 0.3	Estimate
Baghouse No. 4	Particulate	99+%	50 to 0.3	Estimate

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
SAME AS EXISTING PERMITS			

*Units: Natural Gas--MMCF/hr; Fuel Oils--gallons/hr; Coal, wood, refuse, other--lbs/hr.

Fuel Analysis:

Percent Sulfur:_____ Percent Ash:_____

Density: _____ lbs/gal Typical Percent Nitrogen:_____

Heat Capacity: _____ BTU/lb _____ BTU/gal

Other Fuel Contaminants (which may cause air pollution):_____

_____

F. If applicable, indicate the percent of fuel used for space heating.

Annual Average _____ Maximum _____

G. Indicate liquid or solid wastes generated and method of disposal.

Baghouse dust manifested and shipped from site as a hazardous waste.

_____

_____

_____

H. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

SEE ATTACHED SHEET

Stack Height: _____ ft. Stack Diameter: _____ ft.

Gas Flow Rate: _____ ACFM _____ DSCFM Gas Exit Temperature: _____ °F.

Water Vapor Content: _____ % Velocity: _____ FPS

SECTION IV: INCINERATOR INFORMATION

Type of Waste	Type 0 (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq.& Gas By-prod.)	Type VI (Solid By-prod.)
Actual lb/hr Incinerated							
Uncontrolled (lbs/hr)							

Description of Waste _____

Total Weight Incinerated (lbs/hr) _____ Design Capacity (lbs/hr) _____

Approximate Number of Hours of Operation per day _____ day/wk _____ wks/yr. _____

Manufacturer _____

Date Constructed _____ Model No. _____

	Volume $(ft)^3$	Heat Release (BTU/hr)	Fuel		Temperature (°F)
			Type	BTU/hr	
Primary Chamber					
Secondary Chamber					

Stack Height: _____ ft. Stack Diamter: _____ Stack Temp. _____

Gas Flow Rate: _____ ACFM _____ DSCFM* Velocity: _____ FPS

*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of pollution control device: [ ] Cyclone [ ] Wet Scrubber [ ] Afterburner

[ ] Other (specify) _____

SECTION III. H - Emission Stack Geometry

Baghouse 1-2

Stack Height	50 feet		Stack Diameter	8 x 10 ft
Gas Flow Rate	267,558 ACFM	219,446 DSCFM	Exit Temp	176°F
Water Vapor	1.5% Vol		Velocity	55.7 ft/sec

Baghouse 3

Stack Height	40 feet		Stack Diameter	6.5 x 10 ft
Gas Flow Rate	172,456 ACFM	158,530 DSCFM	Exit Temp	93°F
Water Vapor	1.8% Vol		Velocity	44.2 ft/sec

Baghouse 4

Stack Height	40 feet		Stack Diameter	6.5 x 10 ft
Gas Flow Rate	160,078 ACFM	146,371 DSCFM	Exit Temp	96°F
Water Vapor	1.8% Vol		Velocity	41.0 ft/sec

Brief description of operating characteristics of control devices: _____

_____

_____

_____

_____

Ultimate disposal of any effluent other than that emitted from the stack (scrubber water, ash, etc.):

_____

_____

_____

_____

NOTE: Items 2, 3, 4, 6, 7, 8, and 10 in Section V must be included where applicable.

SECTION V: SUPPLEMENTAL REQUIREMENTS

Please provide the following supplements where required for this application.

1. Total process input rate and product weight -- show derivation [Rule 17-2.100(127)]

2. To a construction application, attach basis of emission estimate (e.g., design calculations, design drawings, pertinent manufacturer's test data, etc.) and attach proposed methods (e.g., FR Part 60 Methods 1, 2, 3, 4, 5) to show proof of compliance with applicable standards. To an operation application, attach test results or methods used to show proof of compliance. Information provided when applying for an operation permit from a construction permit shall be indicative of the time at which the test was made.

3. Attach basis of potential discharge (e.g., emission factor, that is, AP42 test).

4. With construction permit application, include design details for all air pollution control systems (e.g., for baghouse include cloth to air ratio; for scrubber include cross-section sketch, design pressure drop, etc.)

5. With construction permit application, attach derivation of control device(s) efficiency. Include test or design data. Items 2, 3 and 5 should be consistent: actual emissions = potential (1-efficiency).

6. An 8 1/2" x 11" flow diagram which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.

7. An 8 1/2" x 11" plot plan showing the location of the establishment, and points of airborne emissions, in relation to the surrounding area, residences and other permanent structures and roadways (Example: Copy of relevant portion of USGS topographic map).

8. An 8 1/2" x 11" plot plan of facility showing the location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.

9. The appropriate application fee in accordance with Rule 17-4.05. The check should be made payable to the Department of Environmental Regulation.

10. With an application for operation permit, attach a Certificate of Completion of Construction indicating that the source was constructed as shown in the construction permit.

SECTION VI: BEST AVAILABLE CONTROL TECHNOLOGY

A. Are standards of performance for new stationary sources pursuant to 40 C.F.R. Part 60 applicable to the source?

[ ] Yes [ ] No

Contaminant	Rate or Concentration

B. Has EPA declared the best available control technology for this class of sources (If yes, attach copy)

[ ] Yes [ ] No

Contaminant	Rate or Concentration

C. What emission levels do you propose as best available control technology?

Contaminant	Rate or Concentration

D. Describe the existing control and treatment technology (if any).

1. Control Device/System:
2. Operating Principles:
3. Efficiency:*
4. Capital Costs:

*Explain method of determining

5. Useful Life:

6. Operating Costs:

7. Energy:

8. Maintenance Cost:

9. Emissions:

Contaminant	Rate or Concentration

10. Stack Parameters

a. Height: ft.

b. Diameter: ft.

c. Flow Rate: ACFM

d. Temperature: °F.

e. Velocity: FPS

E. Describe the control and treatment technology available (As many types as applicable, use additional pages if necessary).

1.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

2.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

3.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Cost:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

4.

a. Control Device:

b. Operating Principles:

c. Efficiency:[1]

d. Capital Costs:

e. Useful Life:

f. Operating Cost:

g. Energy:[2]

h. Maintenance Cost:

i. Availability of construction materials and process chemicals:

j. Applicability to manufacturing processes:

k. Ability to construct with control device, install in available space, and operate within proposed levels:

F. Describe the control technology selected:

1. Control Device:

2. Efficiency:[1]

3. Capital Cost:

4. Useful Life:

5. Operating Cost:

6. Energy:[2]

7. Maintenance Cost:

8. Manufacturer:

9. Other locations where employed on similar processes:

a. (1) Company:

(2) Mailing Address:

(3) City:

(4) State:

[1]Explain method of determining efficiency.
[2]Energy to be reported in units of electrical power - KWH design rate.

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

b. (1) Company:

(2) Mailing Address:

(3) City: (4) State:

(5) Environmental Manager:

(6) Telephone No.:

(7) Emissions:[1]

Contaminant	Rate or Concentration

(8) Process Rate:[1]

10. Reason for selection and description of systems:

[1]Applicant must provide this information when available. Should this information not be available, applicant must state the reason(s) why.

SECTION VII - PREVENTION OF SIGNIFICANT DETERIORATION

A. Company Monitored Data

1. _____no. sites _____ TSP _____( ) SO^{2}* _____ Wind spd/dir

Period of Monitoring _____/_____/_____ to _____/_____/_____
month day year month day year

Other data recorded _____

Attach all data or statistical summaries to this application.

*Specify bubbler (B) or continuous (C).

2. Instrumentation, Field and Laboratory

a. Was instrumentation EPA referenced or its equivalent? [ ] Yes [ ] No

b. Was instrumentation calibrated in accordance with Department procedures?

[ ] Yes [ ] No [ ] Unknown

B. Meteorological Data Used for Air Quality Modeling

1. _____ Year(s) of data from _____/_____/_____ to _____/_____/_____
month day year month day year

2. Surface data obtained from (location)_____

3. Upper air (mixing height) data obtained from (location)_____

4. Stability wind rose (STAR) data obtained from (location)_____

C. Computer Models Used

1. _____ Modified? If yes, attach description.

2. _____ Modified? If yes, attach description.

3. _____ Modified? If yes, attach description.

4. _____ Modified? If yes, attach description.

Attach copies of all final model runs showing input data, receptor locations, and principle output tables.

D. Applicants Maximum Allowable Emission Data

Pollutant	Emission Rate	
TSP	_____	grams/sec
SO^2	_____	grams/sec

E. Emission Data Used in Modeling

Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

F. Attach all other information supportive to the PSD review.

G. Discuss the social and economic impact of the selected technology versus other applicable technologies (i.e., jobs, payroll, production, taxes, energy, etc.). Include assessment of the environmental impact of the sources.

H. Attach scientific, engineering, and technical material, reports, publications, journals, and other competent relevant information describing the theory and application of the requested best available control technology.

FLORIDA STEEL CORP - BALDWIN PERMIT

SECTION II: GENERAL PROJECT INFORMATION

A. The purpose of this Application is to fulfill the suggestions made by Mr. Bruce Mitchell of the Florida Department of Environmental Regulation (FDER), in a meeting on February 26, 1991, concerning the renewal of the Electric Arc Furnace permit for Florida Steel Corporation in Baldwin. The ultimate objective desired by Florida Steel Corporation in submitting this Application is to enable amendments or changes to be made to Construction Permit AC16-41114 and AC16-47926 (Billet Reheat Furnace).

The amendments or changes sought by Florida Steel Corporation concern several aspects of the applicable Operating and Construction Permits for the Electric Arc Furnace and Billet Reheat Furnace. These aspects are as follows:

1. A revised emission limit for particulate matter is sought which will reflect the mass emissions from baghouses 3 and 4 which were added to the facility in 1986.

2. A revised permit limit on operating hours for the electric arc furnace is sought.

3. A revised permit limit on reheat furnace operating hours is sought, in association with permit revisions to recognize primarily natural gas firing.

With regard to 1, Florida Steel Corporation installed two additional baghouse filter systems at the Baldwin Plant, having transferred these units from a deactivated plant in south Florida; these units coming on-line in February, 1986. The purpose of these additional baghouses was to enhance the collection and control of fugitive emissions in the melt shop building. Traditionally, fugitive emissions from this type of facility are not quantitatively controlled in the permits issued to the facility, thus, this emission does not quantitatively appear anywhere in the permits. The original baghouse had a permit emission limit of 13.1 pounds per hour which was calculated on the basis of the New Source Performance Standard (NSPS) emission limit of 0.0052 grains per dry standard cubic feet and a design air flow rate of 294,000 SCFMD. None of the permits issued or contemplated for this facility have stipulated an emission limit for particulate matter which is different from this original value even though proposed renewal permits recognize the existence of the additional Nos. 3 and 4 baghouses. Florida Steel Corporation contends that the two additional baghouses are entitled to some permitted emission rate, logically a rate based on the NSPS concentration limit, and further feels that it is unrealistic to restrict the combined three baghouses to a mass emission limit based on the existence of only one baghouse (the original unit). With the additional baghouse capacity, the air flow rate through these units has approximately doubled in total volume and therefore it is unrealistic to issue a permit that would only allow the mass emissions assigned to the original baghouse alone. It is important to recognize in these deliberations that the apparent increase in permitted and measurable emissions from the three baghouses is more than

offset by a reduction in fugitive emissions from the melt shop building whatever actual quantitative value these fugitive emissions may have assumed in the past. It is emphasized that actual emissions have proven to be materially less than permitted emissions as a matter of history. The recognition of an emission limit for baghouses 3 and 4 can in no way result in increased particulate matter emissions to the environment.

In Item 2, the question of operating hours derives from the fact that in the PSD study associated with the 1981 Construction Permit (AC16-41114), it was established that maximum steel production was not to exceed 65 billet tons per hour and 440,172 billet tons per year. These types of figures are normally used in potential emission calculations and perhaps other permitting purposes. For some reason, those persons responsible for the permit preparation, divided these two numbers to arrive at a quotient of 6,773.2 hours per year as a permit operating time limitation, although a figure of 7872 hours was used in the concurrent BACT determination. As an operating time permit limit, this number is totally unrealistic inasmuch as neither this nor any similar steelmaking facility can maintain its maximum design production rate on a continuous basis. The achieved production rate in most facilities is materially less than the maximum design rate which in reality reflects a short-term production rate that might be achieved under ideal conditions. Unfortunately ideal conditions do not persist over the course of a one-year period. In the case of the Baldwin Mill, an achieved production rate of 55 to 60 tons per hours is much more realistic. Compliance with the short-term production limitations of 65 billet tons per hour and the annual production cap of 440,172 billet tons per year will assure compliance with the Air Quality Standards and Increment. Florida Steel's practice of operating in excess of this annual limitation of production hours at more realistic hourly production levels substantially lower than 65 billet tons per hour has not resulted in increased fuel utilization nor higher annual emissions of associated pollutants. Due to the method of melting and refining scrap metal, fuel utilization and the release of emissions into the atmosphere are linearly related to the steel production, not to hours of operation.

A corollary permit application for amendments to Permit AC16-47926, for the Billet Reheat Furnace is being submitted with these documents. The two need to be reviewed jointly since the computations to arrive at requested permit amendments intertwine the emissions from each source.

The specific changes being requested for the Electric Arc Furnace permit are as follows:

1. Change the hourly particulate matter emission limit from 13.1 to 21.8 pounds per hour from all baghouses.

2. Change the permit limit on operating hours from 6773.2 hours per year to 7872 hours per year.

3. Change the annual particulate matter emission limit from 44.4 tons per year to 85.8 tons per year.

It is duly noted that an apparent inconsistency exists between the permit limits of 21.8 pounds dust per hour, 7872 hours per year, 85.8 tons dust per year, 65 billet tons per hour and 440,172 billet tons per year; the latter two being retained limits from the original permit. The apparent inconsistency results from the fact that the facility cannot and does not realize a production of 65 billet tons per hour during all of its operating hours.

The specific changes being requested for the Billet Reheat Furnace are as follows:

1. Change the permit limit on operating hours from 4891 hours per year to 8300 hours per year; allowing up to 350 hours of this total to have No. 4 oil firing.

2. Revise the table of maximum allowable emissions to the values as follows:

Pt. No.	Pollutant	Pounds/Hour	Tons/Year	Opacity
02	VE			20%
	PM	8.76	2.03	
	SO_2	137.60	15.73	
	NOx	38.80	58.80	
	CO	6.26	14.40	
	HC	1.25	1.30	

Computations are attached to demonstrate that the combined Electric Arc Furnace and Reheat Furnace particulate emissions remain less than 100 tons per year.

COMPUTATIONS FOR BALDWIN PERMIT REVISIONS
FLORIDA STEEL CORPORATION

TABLE 1
EMISSION TEST SUMMARY
BAGHOUSE 1-2

Year	Flow (SCFMD)	Mass Emissions (gr/SCFD)	Pounds/Hour
1988	226,591	0.0044	8.55
1989	236,876	0.00385	7.82
1990	219,446	0.0047	8.84
Average	227,638		8.40

Present permit limit is 13.1 pounds per hour at 0.0052 gr/DSCF and therefore a flow of 293,910 or 294,000 SCFMD.

At the actual average flow and the NSPS limit of 0.0052 gr/DSCF this baghouse would emit at a rate of 10.15 pounds per hour.

TABLE 2
EMISSION TEST SUMMARY
BAGHOUSE 3

Year	Flow (SCFMD)	Mass Emissions (gr/SCFD)	Pounds/Hour
1988	163,194	0.0009	1.26
1989	159,146	0.00044	0.60
1990	158,530	0.0006	0.82
Average	160,290		0.89

At the NSPS limit of 0.0052 gr/DSCF, this average flow would emit 7.14 pounds per hour.

TABLE 3
EMISSION TEST SUMMARY
BAGHOUSE 4

Year	Flow (SCFMD)	Mass Emissions (gr/SCFD)	Pounds/Hour
1988	147,935	0.0013	1.65
1989	138,713	0.00065	0.77
1990	146,371	0.0005	0.63
Average	144,340		1.02

At the NSPS limit of 0.0052 gr/DSCF, this average flow would emit 6.43 pounds per hour.

The baghouses have a combined average flow rate of 532,268 SCFMD and if they emitted at the NSPS level of 0.0052 gr/DSCF, the combined emission would be 23.72 pounds per hour.

If the requested new operating time of 7,872 hours is assumed, the annual emission at the NSPS limit (potential) would be 93.4 tons per year.

For the last three years, the actual annual emission has been about 10.32 pounds per hour for about 7,000 hours, or 36.12 tons per year.

REHEAT FURNACE
FLORIDA STEEL CORPORATION
BALDWIN MILL

The presently permitted emissions are:

	Pounds per Hour	Tons per Year
PM	8.76	21.42
SO_2	137.55	336.38
NOx	38.80	94.89
CO	6.26	15.31
HC	1.25	3.06

All based on a permitted operating time of 4,891 hours per year and oil combustion (#4 oil).

These permitted rates derive from the 1981 PSD which gave pound per hour rates using factors obtained from AP-42 (EPA Factor Book). The annual tonnage limits then follow from 4,891 hours per year, which in turn is related to the EAF billet ton limit of 440,172 tons per year/90 tons per hour = 4,891 hours per year.

Since the plant now uses gas, new emission rates are established using the corresponding factors for gas from AP-42:

PM - 1 to 5 lb/10^6 ft^3 gas; use 3 (factor used in annual emissions reports)
SO_2 - 0.6 lb/10^6 ft^3 gas
NOx - 140 lb/10^6 ft^3 gas
CO - 35 lb/10^6 ft^3 gas
HC - 3 lb/10^6 ft^3 gas

To be consistent, use a heat release rate of 185 x 10^6 BTU per hour, as used in 1981:

185 x 10^6 BTU/hr = 1.7789 x 10^5 ft^3 gas/hr or 0.1779 x 10^6 ft^3/hour.

Using these factors and the 1981 heat rate, for a 90 tons per hour push rate the following emissions derive for gas firing;

	Pounds per Hour
PM	0.534
SO_2	0.107
NOx	24.91
CO	6.226
HC	0.534

1989 operating hours = 8,028 for 379,996 tons pushed or 47.33 tons per hour.
1990 operating hours = 8,194 for 386,490 tons pushed or 47.17 tons per hour.

For purposes of calculation assume an average push rate of 50 tons per hour; then the average over the year would be;

	GAS FIRING			OIL FIRING		Combined Firing
	Lbs/Hr	Tons/Year		Lbs/Hr	Tons/Yr	Tons/Yr
		8300 Hrs	7950 Hrs		350 Hrs	
PM	0.297	1.23	1.18	4.87	0.85	2.03
SO_2	0.594	2.47	2.36	76.4	13.37	15.73
NOx	13.84	57.44	55.01	21.6	3.78	58.79
CO	3.459	14.35	13.75	3.48	0.66	14.41
HC	0.297	1.233	1.18	0.694	0.12	1.30

with annual tons emissions based on 8,300 hours of operation of which 350 hours are assumed to be No. 4 fuel oil firing.

The new permit limits as suggested by Florida Steel for combined gas and oil firing would be, not to exceed 8300 hours per year of operation, including 350 hours per year using "new" No. 4 oil as the fuel and the remainder of fuel being natural gas.

	Pounds per Hour	Tons per Year
PM	8.76	2.03
SO_2	137.55	15.73
NOx	38.80	58.79
CO	6.26	14.41
HC	1.25	1.30

The combined electric arc furnace and reheat furnace particulate emissions can then be summarized as follows:

EAF	85.80 tpy
Reheat Gas	1.18 tpy
Reheat Oil	0.85 tpy
	87.83 tpy

The 86 tons per year on EAF equates to an allowable short-term permit limit of (86 x 2000)/7872 = 21.85 pounds per hour.