→ P 5/20

Check Sheet

Company Name: Florida Steel Corp
Permit Number: AC 29-168457
PSD Number:
County:
Permit Engineer:
Others involved:

Application:
- [x] Initial Application
- [ ] Incompleteness Letters
- [ ] Responses
- [ ] Final Application (if applicable)
- [ ] Waiver of Department Action
- [ ] Department Response
- [ ] Other

Intent:
- [x] Intent to Issue
- [x] ~~Notice to Public~~ of Intent to Issue
- [x] Technical Evaluation
- [x] BACT Determination
- [x] Unsigned Permit
- [ ] Correspondence with:
  - [ ] EPA
  - [ ] Park Services
  - [ ] County
  - [x] Other
- [x] Proof of Publication
- [ ] Petitions - (Related to extensions, hearings, etc.)
- [ ] Other

Final Determination:
- [x] Final Determination
- [x] Signed Permit
- [ ] BACT Determination
- [ ] Other

Post Permit Correspondence:
- [ ] Extensions
- [ ] Amendments/Modifications
- [ ] Response from EPA
- [ ] Response from County
- [ ] Response from Park Services
- [ ] Other

P 938 762 763

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Mr. Dane Meredith, FL Steel	
Street and No. P. O. Box 31328	
P.O., State and ZIP Code Tampa, FL 33631	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date Mailed: 11-28-90 Permit: AC 29-168457	

PS Form 3800, June 1985

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.
1. ☐ Show to whom delivered, date, and addressee's address. *(Extra charge)* 2. ☐ Restricted Delivery *(Extra charge)*

3. Article Addressed to: Mr. Dane Meredith, Div. Mgr. Florida Steel Corporation P. O. Box 31328 Tampa, FL 33631	4. Article Number P 938 762 763
	Type of Service: ☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail ☐ Return Receipt for Merchandise
	Always obtain signature of addressee or agent and DATE DELIVERED.
5. Signature — Address X	8. Addressee's Address *(ONLY if requested and fee paid)*
6. Signature — Agent X	
7. Date of Delivery	

PS Form **3811**, Mar. 1988 * U.S.G.P.O. 1988-212-865 **DOMESTIC RETURN RECEIPT**

Florida Department of Environmental Regulation

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

Bob Martinez, Governor Dale Twachtmann, Secretary John Shearer, Assistant Secretary

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF PERMIT

Mr. Dave Meredith, Division Manager
Florida Steel Corporation
P. O. Box 31328
Tampa, Florida 33631

November 22, 1989

Enclosed is construction permit No. AC 29-168457 to install a continuous caster at your facility in Tampa, Hillsborough County, Florida. This permit is issued pursuant to Section 403, Florida Statutes.

Any party to this permit has the right to seek judicial review of the permit 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 permit 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

Copy furnished to:

B. Thomas, SW District
E. Svec, EPCHC
R. Sholtes, P.E.

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of business on 11-28-89.

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.

Kim Tober 11-28-89
Clerk Date

Final Determination

Florida Steel Corporation
Hillsborough County
Tampa, Florida

Replacement of Casting Machines
Permit No. AC 29-168457

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

November 15, 1989

Final Determination

The construction permit application has been reviewed by the Department. Public notice of the Department's Intent to Issue was published in the Tampa Tribune on October 25, 1989. The Technical Evaluation and Preliminary Determination were available for public inspection at the DER's Southwest District office in Tampa, the Environmental Protection Commission of Hillsborough County office in Tampa, and the DER's Bureau of Air Regulation in Tallahassee.

Comments from the applicant were received during the public notice period. The applicant pointed out that the emission factor used in the Bureau's technical evaluation was more appropriate for molten iron than molten steel and that molten iron would generate higher emissions. The Bureau used a "worst-case" comparison for emissions from hot metal transfer in iron and steel mills (AP-42) since no other estimate of emissions was available. No change in the proposed permit is necessary since the actual emissions will be lower than the level used in the preliminary determination. The applicant's second comment provided additional data on natural gas consumption. Again, no change in the proposed permit is necessary since NOx emissions will not exceed significant levels. Therefore, the final action of the Department will be to issue the construction permit as drafted.

Florida Department of Environmental Regulation

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

Bob Martinez, Governor Dale Twachtmann, Secretary John Shearer, Assistant Secretary

PERMITTEE:
Florida Steel Corp.
P. O. Box 23328
Tampa, Florida 33630

Permit Number: AC 29-168457
Expiration Date: August 31, 1991
County: Hillsborough
Latitude/Longitude: 27°57'18"N
82°22'34"W
Project: Replacement of Casting Machines

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-2 and 17-4. 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 replacement of the two existing casting machines with one new continuous casting machine. This facility is located at 7105-16th Avenue in Tampa, Hillsborough County, Florida. The UTM coordinates of this site are Zone 17,364.6 km E and 3,092.8 km N.

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

Attachment:

Application to Operate/Construct Air Pollution Sources, DER Form 17-202(1), received on August 2, 1989.

PERMITTEE:
Florida Steel Corp.

Permit Number: AC 29-168457
Expiration Date: August 31, 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.

GENERAL CONDITIONS:

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.

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.

GENERAL CONDITIONS:

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, 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.

GENERAL CONDITIONS:

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.

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. The construction and operation of this source shall be in accordance with the capacities and specifications stated in the application.

2. The source shall be allowed to operate for up to 8,400 hours per year at a maximum steel production rate of 47.5 tons per hour; 1008 tons per day (based on an average of 42 tons per hour).

3. Visible emissions from the source shall not be greater than 15% opacity and compliance shall be demonstrated at 90-100% of permitted capacity using DER Method 9 in accordance with F.A.C. Rule 17-2.700.

4. No air pollutants shall be discharged which cause or contribute to an objectionable odor.

5. No additions of slagging materials or other smoke generating materials shall be made to the ladle while it is in the continuous casting process.

6. The use of caster lubricating oil shall be held to the minimum possible in order to minimize the generation of smoke.

7. Caster lubricants shall be selected to the extent economically possible to have minimal smoke generating potential.

8. All ladles, tundish and associated equipment shall be maintained in a condition such that pollutant emissions will be minimized.

PERMITTEE:
Florida Steel Corp.

Permit Number: AC 29-168457
Expiration Date: August 31, 1991

SPECIFIC CONDITIONS:

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

10. An application for an operation permit must be submitted to the DER's Southwest District office and the Hillsborough County Environmental Protection Commission at least 90 days prior to the expiration date of this construction permit or within 45 days after completion of compliance testing, whichever occurs first. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rule 17-4.220).

Issued this 22nd day
of November, 1989

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

Dale Twachtmann, Secretary

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee

To: _____ Location: _____

To: _____ Location: _____

To: _____ Location: _____

From: _____ Date: _____

Interoffice Memorandum

TO: Dale Twachtmann

FROM: Steve Smallwood

DATE: November 15, 1989

SUBJ: Approval of Construction Permit No. AC 29-168457
Florida Steel Corporation

Attached for your approval and signature is a permit prepared by Central Air Permitting for the above mentioned company to install a continuous caster to replace the existing casting machines at their facility in Tampa, Hillsborough County, Florida.

Comments were received during the public notice period.

Day 90, after which this permit will be issued by default, is November 24, 1989.

I recommend your approval and signature.

SS/JR/t

attachments

Phone 813/251-8811

FLORIDA STEEL CORPORATION

"Steel when you want it"

TAMPA STEEL MILL DIVISION
7105 6TH AVENUE • P.O. BOX 31328 • TAMPA, FL 33631

November 7, 1989

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

Subject: Comments on proposed permit to replace the Continuous Casting Machines with a new Continuous Casting Machine at Florida Steel Corporation's Tampa, Florida facility. DER File No. AC 29-168457

Dear Sir,

The following comments are made by the applicant, Florida Steel Corporation, and address items in the technical evaluation. These comments are made to further clarify the operations covered by the proposed permit and do not change the information supplied with the permit application.

1. The emission factor for particulate emissions from hot metal transfer in iron and steel mills (AP-42, EPA, October 1986, Table 7.5-1, page 7.5-9) of 0.056 lb/ton is not necessarily representative of emissions released from continuous casting operations. The generally accepted definition of "hot metal", in the steel industry, is molten iron. Since molten iron has significant higher levels of carbon and other elements the particulate emissions from pouring molten iron are greater than the emissions from pouring molten steel. Also, the source, "hot metal transfer", appears under the Basic Oxygen Furnace category.

   The oxygen process furnace method of making steel is totally different from the electric arc furnace method of making steel.

2. It is not clear how the emission rates for natural gas combustion were derived.

   Natural Gas is used primarily at the continuous caster to preheat tundishes and to preheat billets to be cut with oxygen-natural gas fired torches.

Two tundish preheating stations are planned for the new continuous caster. The maximum natural gas usage rate of each stations is 6,000 SCFH. It is anticipated that only one station will be operating at a time, however, there may be occasions where both stations will operate simultaneously.

November 7, 1989

Mr. Bill Thomas
Department of Environmental Regulation
Bureau of Air Regulation

The following calculation is an estimate of the total annual gas usage for the tundish preheaters.

8,400 Hrs./Yr x 30% x 6,000 SCFH =

15,120,000 SCF Per Year
or
15,120 x 10^6 Btu Per Year

There will be three natural gas/oxygen torches, one to cut each strand of steel being produced. Each torch uses approximately 100 SCFH of natural gas. The estimated annual gas usage for the torches is:

8,400 Hrs./Yr. x 3 x 100 SCFH =

2,520,000 SCF Per Year
or
2,520 x 10^6 Btu Per Year

The amount of natural gas used for the torch cutting operations should not be used when estimating NOx emissions. The oxygen for the torch cutting operation is provided from essentially pure oxygen gas and not from air.

Please do not hesitate to call if you have any questions.

Sincerely,

FLORIDA STEEL CORPORATION

Thomas J. SAck
Division Engineer

vb

cc: D. Meredith
L. Nieves

FLORIDA STEEL CORPORATION
"Steel when you want it"
Phone 813/251-8811
TAMPA STEEL MILL DIVISION
7105 6TH AVENUE • P.O. BOX 23328 • TAMPA, FL 33630

Mr. Bill Thomas
State of Florida
Department of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

October 27, 1989

Subject: Proof of Publication of intent to issue permit for replacing the existing continuous casting machines with a new casting machine. DER file no. AC 29-168457.

Dear Bill,

Please find enclosed the original affidavit from the Tampa Tribune stating that the legal notice, regarding the above, was in the Wednesday, 10/25/89 edition of the Tampa Tribune. Please accept this as proof of publication.

Please do not hesitate to call if you have any questions.

cc:DM
LN

Thomas J. Sack

Division Engineer

copied: J. Reynolds
B. Thomas, SWDist
E. Svec, EPCHC

RECEIVED
OCT 30 1989
DER-BAQM

THE TAMPA TRIBUNE

Published Daily
Tampa, Hillsborough County, Florida

State of Florida
County of Hillsborough } ss.

Before the undersigned authority personally appeared G. T. Gleason, who on oath says that he is Controller of The Tampa Tribune, a daily newspaper published at Tampa in Hillsborough County, Florida; that the attached copy of advertisement being a .....

LEGAL NOTICE

.....

.....

in the matter of ..... INTENT TO ISSUE A PERMIT TO FLORIDA STEEL. .....

.....

.....

was published in said newspaper in the issues of ..... October 25, 1989 .....

.....

Affiant further says that the said The Tampa Tribune is a newspaper published at Tampa, in said Hillsborough County, Florida, and that the said newspaper has heretofore been continuously published in said Hillsborough County, Florida, each day and has been entered as second class mail matter at the post office in Tampa, in said Hillsborough 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 the said newspaper.

G. T. Gleason

Sworn to and subscribed before me, this 25th *day of* October *A.D. 19* 89

Debra Lynne Buchand

(SEAL)

Notary Public, State of Florida
My Commission Expires June 6, 1993
Bonded Thru Troy Fain - Insuronco Inc.

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 a permit to Florida Steel Corporation, 7105-6th Avenue, Tampa, Florida 33631, to install a continuous caster to replace the existing casting machines at their facility in Tampa, Hillsborough County, Florida. 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 application 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 application is 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
Southwest District
4520 Oak Fair Blvd.
Tampa, Florida 33610-7347

Hillsborough County
Environmental
Protection Commission
1410 North 21st Street
Tampa, Florida 33605

Any person may send written comments on the proposed action to Mr. Bill Thomas 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.

4554 10/25/89

P 938 762 717

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL
(See Reverse)

Sent to Mr. Dane Meredith, FL Steel Cor	
Street and No. P.O. Box 31328	
P.O., State and ZIP Code Tampa, FL 33631	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt showing to whom and Date Delivered	
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date Mailed: 10-16-89 Permit: AC 29-168457	

PS Form 3800, June 1985

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.
1. ☐ Show to whom delivered, date, and addressee's address. *(Extra charge)* 2. ☐ Restricted Delivery *(Extra charge)*

3. Article Addressed to: Mr. Dane Meredith Division Manager Florida Steel Corporation P.O. Box 31328 Tampa, FL 33631	4. Article Number P 938 762 717 Type of Service: ☐ Registered ☐ Insured ☒ Certified ☐ COD ☐ Express Mail ☐ Return Receipt for Merchandise
	Always obtain signature of addressee or agent and DATE DELIVERED.
5. Signature — Address X	8. Addressee's Address *(ONLY if requested and fee paid)*
6. Signature — Agent X M. Poole	
7. Date of Delivery	

FL CALLER OCT

PS Form **3811**, Mar. 1988 * U.S.G.P.O. 1988-212-865 **DOMESTIC RETURN RECEIPT**

Florida Department of Environmental Regulation

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

Bob Martinez, Governor Dale Twachtmann, Secretary John Shearer, Assistant Secretary

October 13, 1989

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. Dane Meredith, Division Manager
Florida Steel Corporation
P. O. Box 31328
Tampa, Florida 33631

Dear Mr. Meredith:

Attached is one copy of the Technical Evaluation and Preliminary Determination and proposed permit for Florida Steel Corporation to install a continuous caster at your facility in Tampa, Florida.

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

Sincerely,

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

CHF/JR/t

Attachments

cc: B. Thomas, SW District
E. Svec, HCEPC
R. Sholtes, P.E.

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of
Application for Permit by:

Florida Steel Corporation
P. O. Box 31328
Tampa, Florida 33631

DER File No. AC 29-168457

INTENT TO ISSUE

The Department of Environmental Regulation hereby gives notice of its intent to issue a permit (copy attached) for the proposed project as detailed in the application 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 July 31, 1989, to the Department of Environmental Regulation for a permit to install a continuous caster to replace the existing casting machines at their facility in Tampa, Hillsborough County, Florida.

The Department has permitting jurisdiction under Chapter 403, Florida Statutes, and Florida Administrative Code Rules 17-2 and 17-4. The project is not exempt from permitting procedures. The Department has determined that an air construction permit is 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 Permit. 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 permit.

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

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. 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 application(s) 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.
Bureau of Air Regulation

Copies furnished to:

B. Thomas, SW District
E. Svec, HCEPC
R. Sholtes, P.E.

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 10-16-89.

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.

Kim Doker — Clerk

10-16-89 — 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 a permit to Florida Steel Corporation, 7105-6th Avenue, Tampa, Florida 33631, to install a continuous caster to replace the existing casting machines at their facility in Tampa, Hillsborough County, Florida. 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 application 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 application is 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
Southwest District
4520 Oak Fair Blvd.
Tampa, Florida 33610-7347

Hillsborough County Environmental
Protection Commission
1410 North 21st Street
Tampa, Florida 33605

Any person may send written comments on the proposed action to Mr. Bill Thomas 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
Hillsborough County
Tampa, Florida

Replacement of Casting Machines
Permit No. AC 29-168457

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

October 13, 1989

I. Application

A. Applicant
Florida Steel Corporation
P. O. Box 31328
Tampa, Florida 33631

B. Request

The Department received an application on July 31, 1989, for a permit to replace two existing billet casting machines with one new casting machine. The application was deemed complete on July 31, 1989.

C. Location/Classification

The applicant's steel manufacturing facility (SIC Code 3312) is located at 7105 - 6th Avenue in Tampa with latitude and longitude of 27° 57' 18"N and 82° 22' 34"W, respectively. The UTM coordinates of the site are: Zone 17, 364.6 km E and 3,092.8 km N.

II. Project Description/Emissions

It is proposed to replace two existing non-continuous casting machines at the applicant's Tampa steel mill with one new continuous casting machine. This modification is being done in conjunction with replacement of two existing electric arc furnaces with one new furnace (construction permit no. AC 29-159192). Molten steel from the new furnace will be cast into billets (square bars) which will be rolled into concrete reinforcing bars. The casting process involves transfer of molten steel from the furnace to the billet molds by a crane-mounted ladle. Three strands will be produced simultaneously by the new continuous casting machine without having to change ladles.

Emissions from the continuous casting part of the operation include particulate matter/visible emissions from the transfer and cooling of the molten steel, natural gas combustion products from preheating the refractory lined vessel (tundish) used to pour steel into the molds, and smoke/fumes from the billet cutting torches. The applicant pointed out that no recognized, reliable emission factors exist for the continuous casting process. However, an approximation of emissions can be obtained by considering emission factors for similar operations occurring in other processes. Using EPA's factor for particulate emissions from hot metal transfer in iron and steel mills (AP-42, EPA, October 1986, Table 7.5-1, page 7.5-9) a rough estimate of particulate emissions at the building monitor would be 0.056

lb/ton x 42 tons/hr x 8400 hr/yr x ton/2000 lb = 9.9 tons/yr. Likewise, using emission factors for natural gas combustion and an estimated fuel consumption of 560 million Btu/yr, NOx emissions would be 0.28 tons/yr. From this analysis it does not appear that emissions from the continuous casting process will exceed significant levels.

III. Rule Applicability

The construction permit application is subject to review under Chapter 403, Florida Statutes, and Florida Administrative Code (F.A.C.) Chapters 17-2 and 17-4. The facility is located in an area classified as nonattainment for particulate matter and ozone (VOC). It has been determined through prior correspondence that the continuous casting operation is exempted from the particulate RACT rule by way of F.A.C. Rule 17-2.650(2)(b)6 and that the source will be regulated under F.A.C. Rule 17-2.610(3), Unconfined Emissions of Particulate Matter, with an opacity standard of 15 percent.

IV. Conclusion

Based on the information provided by Florida Steel Corporation, the Department has reasonable assurance that the proposed continuous casting machine project, 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.

lb/ton x 42 tons/hr x 8400 hr/yr x ton/2000 lb = 9.9 tons/yr. Likewise, using emission factors for natural gas combustion and an estimated fuel consumption of 560 million Btu/yr, NOx emissions would be 0.28 tons/yr. From this analysis it does not appear that emissions from the continuous casting process will exceed significant levels.

III. Rule Applicability

The construction permit application is subject to review under Chapter 403, Florida Statutes, and Florida Administrative Code (F.A.C.) Chapters 17-2 and 17-4. The facility is located in an area classified as nonattainment for particulate matter and ozone (VOC). It has been determined through prior correspondence that the continuous casting operation is exempted from the particulate RACT rule by way of F.A.C. Rule 17-2.650(2)(b)6 and that the source will be regulated under F.A.C. Rule 17-2.610(3), Unconfined Emissions of Particulate Matter, with an opacity standard of 15 percent.

IV. Conclusion

Based on the information provided by Florida Steel Corporation, the Department has reasonable assurance that the proposed continuous casting machine project, 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.

10/16

Patty -
No changes. Go ahead and mail today and Bill can send tomorrow. Only requirement is for it to be sealed for our files

Clair

Florida Department of Environmental Regulation

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

Bob Martinez, Governor Dale Twachtmann, Secretary John Shearer, Assistant Secretary

PERMITTEE:
Florida Steel Corp.
P. O. Box 23328
Tampa, Florida 33630

Permit Number: AC 29-168457
Expiration Date: August 31, 1991
County: Hillsborough
Latitude/Longitude: 27°57'18"N
82°22'34"W
Project: Replacement of Casting Machines

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-2 and 17-4. 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 replacement of the two existing casting machines with one new continuous casting machine. This facility is located at 7105-16th Avenue in Tampa, Hillsborough County, Florida. The UTM coordinates of this site are Zone 17,364.6 km E and 3,092.8 km N.

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

Attachment:

Application to Operate/Construct Air Pollution Sources, DER Form 17-202(1), received on August 2, 1989.

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.

GENERAL CONDITIONS:

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.

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.

GENERAL CONDITIONS:

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, 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.

GENERAL CONDITIONS:

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.

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. The construction and operation of this source shall be in accordance with the capacities and specifications stated in the application.

2. The source shall be allowed to operate for up to 8,400 hours per year at a maximum steel production rate of 47.5 tons per hour; 1008 tons per day (based on an average of 42 tons per hour).

3. Visible emissions from the source shall not be greater than 15% opacity and compliance shall be demonstrated at 90-100% of permitted capacity using DER Method 9 in accordance with F.A.C. Rule 17-2.700.

4. No air pollutants shall be discharged which cause or contribute to an objectionable odor.

5. No additions of slagging materials or other smoke generating materials shall be made to the ladle while it is in the continuous casting process.

6. The use of caster lubricating oil shall be held to the minimum possible in order to minimize the generation of smoke.

7. Caster lubricants shall be selected to the extent economically possible to have minimal smoke generating potential.

8. All ladles, tundish and associated equipment shall be maintained in a condition such that pollutant emissions will be minimized.

PERMITTEE:
Florida Steel Corp.

Permit Number: AC 29-168457
Expiration Date: August 31, 1991

SPECIFIC CONDITIONS:

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

10. An application for an operation permit must be submitted to the DER's Southwest District office and the Hillsborough County Environmental Protection Commission at least 90 days prior to the expiration date of this construction permit or within 45 days after completion of compliance testing, whichever occurs first. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rule 17-4.220).

Issued this _____ day
of _____, 1989

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

_____
Dale Twachtmann, Secretary

FLORIDA STEEL CORPORATION
"Steel when you want it"
Phone 813/621-3511

TAMPA STEEL MILL DIVISION
7105 6TH AVENUE • P. O. BOX 23328 • TAMPA, FL 33630

July 26, 1989

Mr. Bill Thomas
Bureau of Air Quality Management
Florida Department of Environmental Regulation
2600 Blair Stone Road, Twin Towers
Tallahassee, Florida 32301

Subject: Application to Modify Air Pollution Source at Florida Steel Corporation's Tampa Mill Division, Tampa Florida

Dear Bill,

Please find enclosed four (4) signed and certified copies of a permit application. This permit application is for replacing the two existing continuous casting machines with one new continuous casting machine. Enclosed is a check for $200.00.

Please do not hesitate to call if you have any questions.

Sincerely,

FLORIDA STEEL CORPORATION

T. J. Sack
Division Engineer

cc: D. Meredith
L. Neives
R. Sholtes
E. Svec - H.C.E.P.C.

Enclosures: Four (4) copies of Permit Application dated 7/26/89
Check for $200.00

vb

1081

BEST AVAILABLE COPY

907781

341632-8

FLORIDA STEEL CORPORATION
"Steel when you want it"
TAMPA, FLORIDA

[redacted]
631

13/621-3511

DATE
07 26 89

PAY
TO THE
ORDER OF

FL DEP ENVIRONMENTAL REGULATIONS
33402

$********200.00

NCNB NATIONAL BANK
OF FLORIDA TAMPA, FLORIDA

[redacted]

2600 Blair Stone Road, Twin Towers
Tallahassee, Florida 32301

Subject: Application to Modify Air Po
Corporation's Tampa Mill Div

Dear Bill,

Please find enclosed four (4) signe ion.
This permit application is for repl
machines with one new continuous ca
$200.00.

Please do not hesitate to call if y

Sincerely,

FLORIDA STEEL CORPORATION

T.
Div

cc:

Enc 89

vb

Fold at line over top of envelope to the right of the return address

CERTIFIED

P 890 623 165

MAIL

TAMPA JUL 27'89 FLA.

U.S. POSTAGE 19¢

FLORIDA STEEL CORPORATION
"Steel when you want it"

TAMPA STEEL MILL DIVISION
P. O. BOX 23328
TAMPA, FLORIDA 33623

To

Mr. Bill Thomas
Bureau of Air Quality Management
Florida Department of Environmental Reg.
2600 Blair Stone Road, Twin Towers
Tallahassee, FL 32301

POSTMASTER: Contents — Merchandise. This package may be opened for Postal Inspection if necessary. RETURN POSTAGE GUARANTEED.

90 89 002 1.5M—11/80

1031

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

$200 pd. 7-31-89 Rcpt. #117643

AC29-168457

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Steel Manufacturing [ ] New[1] [X] Existing[1]

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

COMPANY NAME: Florida Steel Corporation- Tampa Steel Mill COUNTY: Hillsborough

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) Continuous Caster

SOURCE LOCATION: Street 7105 6th Ave. City Tampa

UTM: East 17-364.63 North 3092.82

Latitude 27 ° 57 ' 18 "N Longitude 82 ° 22 ' 34 "W

APPLICANT NAME AND TITLE: Dane Meredith, Division Manager

APPLICANT ADDRESS: P.O. Box 31328 Tampa, Florida 33631

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

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

I certify that the statements made in this application for a modification permit are true, correct and complete to the best of my knowledge and belief. Furth I agree to maintain and operate the pollution control source and pollution cont facilities in such a manner as to comply with the provision of Chapter 403, Flor 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-transfera and I will promptly notify the department upon sale or legal transfer of the permit establishment.

*Attach letter of authorization

Signed: Dane Meredith

Dane Meredith Division Manager
Name and Title (Please Type)

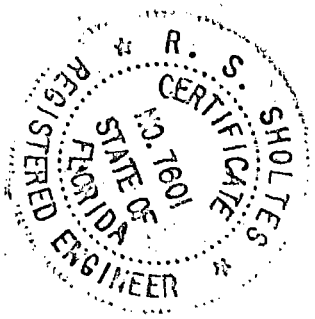
Date: 7/26/89 Telephone No. (813) 251-8811

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 h been designed/examined by me and found to be in conformity with modern engineer principles applicable to the treatment and disposal of pollutants characterized in t permit application. There is reasonable assurance, in my professional judgment, t

[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 PA
Company Name (Please Type)

1213 NW 6th St. Gainesville, Fla. 32601
Mailing Address (Please Type)

Florida Registration No. 7601 Date: 9-20-89 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 June 1990 Completion of Construction June 1991

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.

Permit AO 29-135115 Issued August 28, 1987, Expiration Date August 28, 1992

Continuous Caster

The Tampa Steel Mill Division of Florida Steel Corporation operates a steel manufacturing facility at this location. The major operations performed at this location consist of melting steel scrap, casting molten steel into billets (square bars), and rolling the billets into concrete reinforcing bars.

This project shall consist of replacing two-two strand casting machines with one-three strand casting machine including related equipment.

This project, to replace the continuous casters, will be done in conjunction with replacing the two existing electric arc furnaces with one electric arc furnace (Construction Permit No. AC 29-159192).

The new continuous casting machine will receive molten steel from the electric arc furnace. The molten steel is transferred from the furnace to the caster in a refractory lined ladle. The ladle is carried by an overhead crane and is set by the crane on a ladle turret at the caster. The turret will rotate and move the ladle to the casting position. Once in the casting position the molten steel is poured from the ladle to the tundish, a refractory lined vessel, and from the tundish to the molds. One tundish is used to cast three strands simultaneously. The steel begins solidifying in the mold and is withdrawn from the bottom of the mold. As the billet leaves the mold, water is sprayed on its surface to remove heat and allow solidification to continue. The billets leaving the casting machine are cut to a predetermined length using oxygen-natural gas fired cutting torches. The

cut billets are transferred to a storage area to await subsequent processing.

The major differences between the existing continuous casters and the new continuous caster are:

The new caster will be capable of casting one ladle at a time. Presently two ladles can be cast at a time.

The new caster will be able to sequence cast. Sequence casting is being able to continue casting while changing ladles. The existing do not sequence cast.

The new tundishes will be preheated using natural gas fired burners.

The production rate of the caster is matched to that of the electric arc furnace. The maximum design capacity of the electric arc furnace is 325,000 tons per year, with an expected production of approximately 250,000 tons per year during the first few years after start-up.

The pollution emissions associated with the continuous caster operation originate, primarily, from the molten steel in the ladle, tundish and mold, and to some degree, at the torch cutting and tundish preheat areas. In all cases, the amount of smoke generated is relatively small.

There are no emission estimates available through the various EPA emission factor documents nor are there any recognized measurement techniques to evaluate these emissions.

E. Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 50 ;

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

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? Yes

   a. If yes, has "offset" been applied? No

   b. If yes, has "Lowest Achievable Emission Rate" been applied? No

   c. If yes, list non-attainment pollutants. Particulate, Oxidants (VOC)

2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. No

3. Does the State "Prevention of Significant Deterioriation" (PSD) requirement apply to this source? If yes, see Sections VI and VII. No

4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? No

5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? No

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 anawer of "No" that might be considered questionable.

See attached page 3a

As presently constituted, the section 17-2.650 RACT rules are clearly for traditional point sources wherin emission measurements are attainable through some confined emission point, typically a duct or stack discharging to the ambient air.

The continuous casting machines which are the subject of this permit application, fall under the definition of "Unconfined Emissions" and section 17-2.610(3), FAC, Unconfined Emissions of Particulate Matter.*** Section 17-2.610(3) recognizes that in these cases perhaps quantitative emission limits are not practicable. This regulation further states that where a permit is issued to such a source, the permit shall spell out those reasonable precautions the source shall take to control these unconfined emissions.

Having considered this need and utilizing the staff's familiarity with the process, Florida Steel suggests that the following set of reasonable precautions for the anticipated permit:

1. No additions of slagging materials or other smoke generating materials will be made to the ladle while it is in the continuous casting process.

2. The use of caster lubricating oil will be held to the minimum possible in order to minimize the generation of smoke.

3. Caster lubricants will be selected to the extent economically possible to have minimul smoke generating potential.

4. All ladles, tundish and associated equipment will be maintained in a condition such that pollutant emissions will be minimized.

*** In Chapter 17-2, Unconfined Emissions are defined as "Emissions which escape and become airborne from unenclosed operations or which are emitted into the atmosphere without being conducted through a stack."

The applicability of the above portion of Chapter 17-2 has been the subject of study and consultation since April of 1986. the outcome of these efforts are reflected in the attached correspondence of April 28, 1987 from HPEPC which proposes a mutually accepted opacity limit on the continuous caster of 15 percent. This permit limitation was suggested by the applicant and continues to be an acceptable permit provision.

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 avg.	Relate to Flow Diagram
	Type	% Wt		
Molten Steel	Not Applicable		42 tph	Not Applicable

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

1. Total Process Input Rate (lbs/hr): 84000 Avg 95000 Maximum

2. Product Weight (lbs/hr): 84000 Avg. 95000 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	
Part. Matter	See data related to Section H, Page 3.						
	There are no reliable test methods or emission factors						
c	for determining the emissions from this source.						

[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)
Not Applicable				

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
None			

*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.

_____

_____

_____

_____

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

Stack Height: Not Applicable 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) _____

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 operat 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 propoaed 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. Deacribe 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 environmentsl 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.

15

ENVIRONMENTAL PROTECTION COMMISSION
OF
HILLSBOROUGH COUNTY
ROONEY COLSON
PAM IORIO
RUBIN E. PADGETT
JAN KAMINIS PLATT
HAVEN POE
JAMES D. SELVEY
PICKENS C. TALLEY II

ROGER P. STEWART
DIRECTOR

1900 - 9th AVE
TAMPA, FLORIDA 33605

TELEPHONE (813) 272-5960

April 28, 1987

Mr. Earl Hendry, Plant Manager
Florida Steel Corporation
Post Office Box 23328
Tampa, FL 33623

Re: Continuous Casting Operations

Dear Mr. Hendry:

The staff of the Environmental Protection Commission of Hillsborough County has reviewed Dr. Sholtes' report dated August 6, 1986. The report was submitted to justify Florida Steel's proposal to regulate the visible emissions from the continuous casting operations at 15% opacity.

To recapitulate, the Florida Department of Environmental Regulation has determined that the continuous casting operations are exempted from the requirements of Particulate RACT via Subsection 17-2.650 (2)(b)6., F.A.C. and that the sources are regulated under Section 17-2.610(3), F.A.C. In a June 16, 1986, memo written by Bruce Mitchell, the letter mentions reasonable precautions include "any agreed to between the department and the permittee." As an approved local program delegated to enforce Section 17-2, F.A.C. in Hillsborough County, we agree to set a 15% opacity standard for the continuous casting operations.

Be advised this visible emissions limit does not permit your company to allow emissions which will cause an objectionable odor or which will cause a nuisance to surrounding establishments.

In accordance with the requirements of the Consent Order entered into between Florida Steel and Environmental Protection Commission of Hillsborough County for Case No. WN#60128WES1, Florida Steel must still submit an operating permit application along with fees for the above source. The county fee, effective January 1, 1987, is $355.00. Please make your check payable to the Hillsborough Board of County Commissioners. The Florida Department of Environmental Regulation fee is $100.00. The new deadline date to submit the application is June 1, 1987.

If I can be of further assistance, please do not hesitate to call. Please keep this letter for future reference.

Sincerely,

Victor San Agustin

Victor San Agustin
Senior Air Permitting Engineer
Environmental Protection Commission
of Hillsborough County

cc: Clair Fancy, BAQM
Bill Thomas, SWFDER
Robert Sholtes

VSA/ch

FL Steel Corp.

① Robert S. Shelton letter dated : 12-5-86 Rec'd: 12-8-86
② Rec'd & Reviewed 12-15-86
③ 12-15-86 Called R.S.S. & requested the attachment referenced in #5.
④ 12-16-86 Discussed w RT.
⑤ Rec'd info. 12-17-86
⑥ Called J. Estler about comments 12/18/86
⑦ 1/20/87 Spoke w J. Campbell & V. San Agustin assigned reviews (not in today).
Message left for a return ph. call.
⑧ 1/21/87
J. Estler
V.S. Agustin } No comments; to CC each. from

543-5960
Victor San Agustin

Copy of Permit Engineer's file folder

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

BOB MARTINEZ
GOVERNOR

DALE TWACHTMANN
SECRETARY

February 11, 1987

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Dr. Robert S. Sholtes, Ph.D., P.E.
Environmental Consultants
1213 N.W. 6th Street
Gainesville, Florida 32601

Dear Dr. Sholtes:

Re: Florida Steel Corporation's Draft Proposal to Install a New Steel Mill

The department is in receipt of the above referenced proposal, received on 12/8/86, and supplemental material received on 12/17/86, which requested guidance in the permitting of a new steel mill at FSC's existing facility locted in Tampa, Hillsborough County, Florida. Based on the material received, the following is offered:

1) The existing facility is located in a nonattainment area for the pollutants particulate matter (PM) and ozone (specifically VOC (volatile organic compounds)).

2) It is assumed that the pollutant emissions from the refining/stirring operation are the same type as that from an EAF.

3) If the total net projected potential emissions for PM is equal to or greater than the net significant emission level as contained in FAC Rule 17-2, Table 500-2, then the emissions will be subject to review in accordance with FAC Rule 17-2.510(4), which includes the requirement for the determination of LAER. If not, review will be in accordance with FAC Rule 17-2.520.

4) As described in No. 3 for PM, the same review will be required for the emissions of VOC.

5) Except for PM and VOC, all other pollutant emissions will be subject to review pursuant to FAC Rule 17-2.500. If any of the total net projected potential pollutant emissions are equal to or greater than the net significant emissions level as contained in FAC Rule 17-2, Table 500-2, then review of the emissions for the affected pollutant(s) will be in accordance with FAC Rule 17-2.500(5), which includes the requirement for the determination of BACT. If not, review will be in accordance with FAC Rule 17-2.520.

6) The proposed new EAF and its shop will be subject to the standards of the New Source Performance Standards, 40 CFR 60, Subpart AAa.

7) FSC's request that the refining/stirring and casting operations shop's visible emissions (VE) limit be the same as that required for an EAF shop pursuant to 40 CFR 60.272a(a)(3), namely less than 6 percent opacity, is considered by the bureau to be reasonable.

8) Because FSC is located in a nonattainment area for particulate matter (PM), an emission rate for PM and an opacity limit for VE will be established for the baghouse control system servicing the refining/stirring operation. Since FSC contends that the pollutant emissions are less than an EAF operation, it is reasonable to use the guidelines for an EAF pursuant to the NSPS, 40 CFR 60, Subpart AAa, to establish the emission standards for this operation, namely "12 mg/dscm (0.0052 gr/dscf)" for PM and "less than 3 percent opacity" for VE.

9) The proposed pollutant emission standards found in Nos. 6, 7, and 8 are considered to be minimum standards. If a determination of LAER is required, the emission standards could be more stringent. BACT/LAER coordinator for the bureau is Mr. Barry Andrews.

10) If, after mass compliance testing the baghouse control system servicing the refining/stirring operation, the actual PM emissions are greater than the projected and would significantly change the initial review and the preliminary determination, the bureau will be required to rereview the proposed project in accordance with FAC Rule 17-2.510(2)(d)5.

If there are any questions, please call Bruce Mitchell at (904)488-1344 or write to me at the above address.

Sincerely,

C. H. Fancy, P.E.
Deputy Chief
Bureau of Air Quality
Management

CHF/BM/s

cc: J. Costas
J. Estler
J. Campbell

PM
12-16-86
Gainesville, FL

ROBERT S. SHOLTES P.A. ENVIRONMENTAL CONSULTANTS
1213 N.W. 6th Street Gainesville, Florida 32601 (904) 377-5822

RSS 101-86-12

December 5, 1986

DER

DEC 17 1986

BAQM

Mr. Bill Thomas
Florida Department
of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32301

Re: Florida Steel Corporation
Tampa Plant

Dear Mr. Thomas:

The purpose of this letter is to obtain guidance in the permitting of a potential new steel mill to be constructed in Tampa by Florida Steel Corporation. It should be understood that at this time this project has not received the approval of the Board of Directors and therefore this inquiry is in anticipation of such approval toward the end of January, 1987.

The proposed new construction would entail the following general features:

1). The existing two electric arc furnaces will be shut down and replaced by a new and larger single electric arc furnace.

2). The new electric arc furnace will have the potential to produce approximately 100,000 tons per year more steel than the combined two existing furnaces.

3). Due to the proposed total enclosure of the new furnace it is anticipated that particulate emissions to the atmosphere will be reduced relative to those of the existing installation. The company appreciates that this fact will have to be substantiated and that ambient modeling will be required to demonstrate the resulting improvement in the ambient air.

4). The existing continuous casting machines will be replaced by new but similar units.

5). The new equipment will be housed in two new buildings, sharing a common wall, schematically illustrated in the attached material. The design of each building will strive for no visible emissions. To attain this goal, the existing baghouses are to be retained and devoted entirely to building evacuation

and will be supplemented by a new baghouse serving the furnace and building evacuation. In total, the air flow handled by the combined units will be more than double that presently in place at the existing plant.

6). Referring to the attached schematic, the following comments are offered. The furnace building will be essentially totally enclosed. The furnace itself will be elevated such that the steel is tapped into a ladle mounted on rails, thus eliminating the need for overhead cranes to move the ladle to the casting building. The vertical wall separating the furnace building and casting building is thus without openings up to the building peak, thereby containing emissions from the charging and tapping operations on the arc furnace. In similar fashion, the charging buckets are positioned by rail transport and lifted within the furnace building by overhead crane. Movable but horizontal doors will be placed over the charge bucket rail station to seal this otherwise open avenue to the outside. As a chargebucket is needed, these doors will be moved back to allow crane access. These horizontal doors are also envisioned as a damper of sorts to control the flow of outside air into the building to maintain satisfactory working conditions at the overhead crane level.

The casting building is provided with building exhaust aiming at no visible emissions. It will be noted that a Refining/Stirring Station exists in the casting building, whereas in the past this has been only a stirring activity. Technological advances in the industry and the ever present need to stay competitive bring about this change. This station will employ electric arc electrodes to maintain and raise the steel temperature during the metallurgy adjustments or refining. This station will be served by a side draft evacuation system routed to the new baghouse. Observations of this type unit at foreign mills suggests that emissions are low compared to the arc furnace.

7). The new buildings will be located on the present Florida Steel site in Tampa. Within this site, the location will be generally west of the present melt shop building. This present building will remain but be used for other purposes.

8). The company recognizes that the new electric arc furnace will constitute a new source in a non-attainment area and will need to be reviewed in that context. It is also recognized that at the very minimum, the electric arc furnace and its building will be subject to New Source Performance Standards, specifically subpart AAa. The requirements of this subpart are being recognized in the design phase of the installation. The

new furnace will be of the fourth hole design and therefore subject to those special additional requirements of subpart AAa for that type of installation.

9). The company recognizes that perhaps the casting building is not subject to the same regulation as the furnace building. In spite of this fact, however, the design criteria for the casting building are being carried out on the basis of attaining visible emissions as required by subpart AAa, namely a six percent opacity limit. Having confined the emissions during charging and tapping of the arc furnace, it is felt that those remaining emissions due to casting and ladle stirring will be easily controlled to the six percent level.

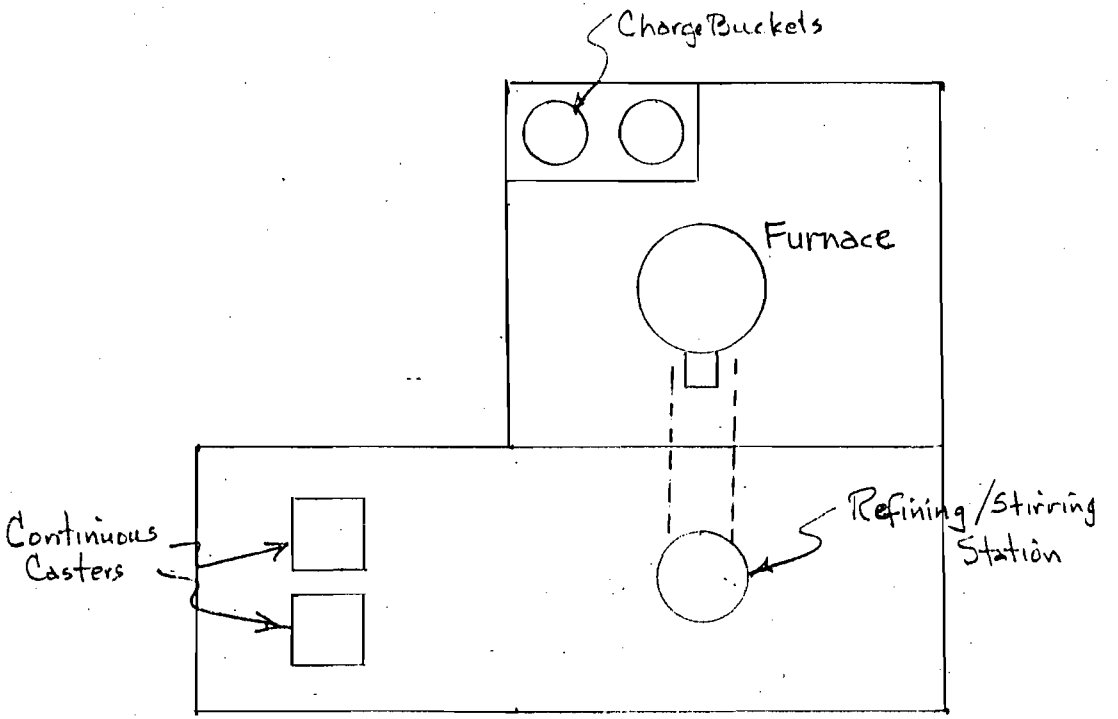
It is requested that you review this brief description of the proposed project and advise me in particular of the anticipated permitting requirements that must be fulfilled. Specifically, I am concerned with respect to a recognized need for computer modeling of the emissions to establish satisfactory offset but do have some questions with respect to things like BACT, LAER, and possibly other procedures which must be carried out in the permitting process. If you could, I would appreciate your consideration of how we treat the emissions of other criteria pollutants from this facility even though the geographic area is perhaps not in non-attainment status for those pollutants. Specifically, will testing be required for these other pollutants or can estimates be used to satisfy the Department's requirements. Any help you could provide on a timely basis will be most appreciated and we stand ready to provide any further information you may desire as it is available to us.

Sincerely,

Robert S. Sholtes, Ph.D., P.E.

RSS:app

cc: Mr. Bob Hutchens
Mr. Jerry Campbell
Mr. Jim Estler



NEW MELTSHOP LAYOUT
FLORIDA STEEL/TAMPA

Rec'd 12-15-86
Copied from original 12-15-86
Notified Patty. RBPL
12-15-86: Requested Dr. Sholtes to send Attach (see #5); v'd with Patty; RBPL
12-16-86 Discussed @ BT Rem

ROBERT S. SHOLTES PA, ENVIRONMENTAL CONSULTANTS
1213 N.W. 6th Street Gainesville, Florida 32601 (904) 377-5822

DER
DEC 8 1986
BAQM

RSS 101-86-12

December 5, 1986

Mr. Bill Thomas
Florida Department
of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32301

Re: Florida Steel Corporation
Tampa Plant

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where and send us test results substantiating this

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Without the pollutant emission projections, we cannot offer rule applicability

It is requested that you review this brief description of the proposed project and advise me in particular of the anticipated permitting requirements that must be fulfilled. Specifically, I am concerned with respect to a recognized need for computer modeling of the emissions to establish satisfactory offset but do have some questions with respect to things like BACT, LAER, and possibly other procedures which must be carried out in the permitting process. If you could, I would appreciate your consideration of how we treat the emissions of other criteria pollutants from this facility even though the geographic area is perhaps not in non-attainment status for those pollutants. Specifically, will testing be required for these other pollutants or can estimates be used to satisfy the Department's requirements. Any help you could provide on a timely basis will be most appreciated and we stand ready to provide any further information you may desire as it is available to us.

– what are they

– what are the pollutants, process, before this can be answered.

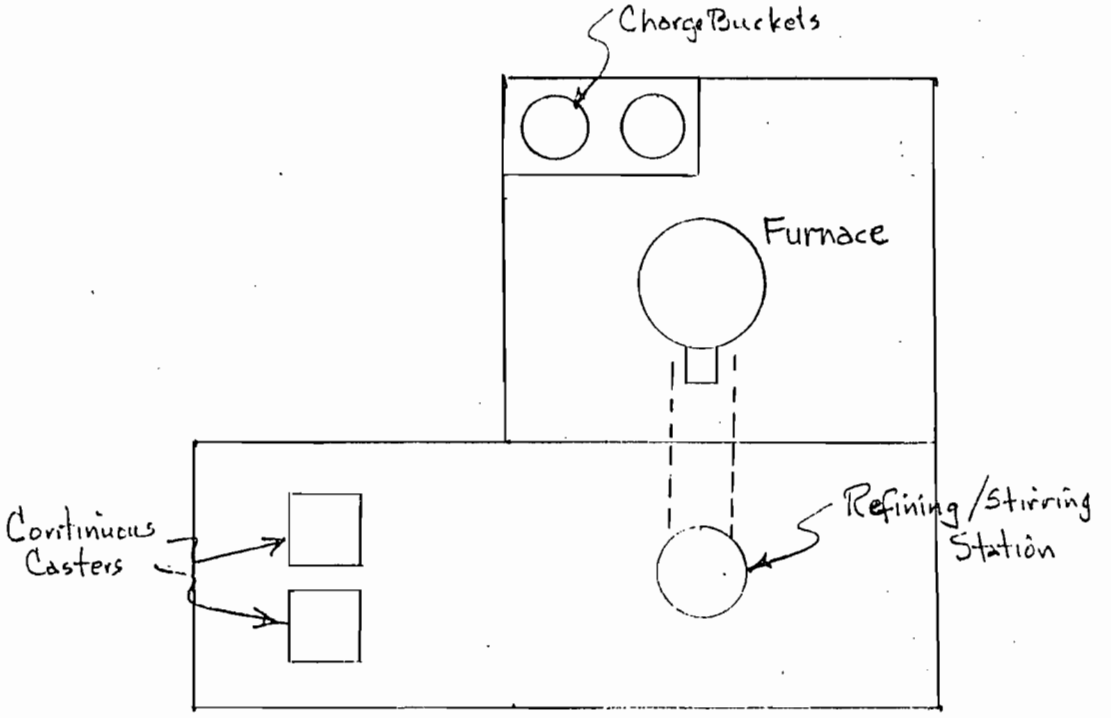
Sincerely,

Robert S. Sholtes

Robert S. Sholtes, Ph.D., P.E.

RSS:app

cc: Mr. Bob Hutchens
Mr. Jerry Campbell
Mr. Jim Estler



NEW MELTSHOP LAYOUT
FLORIDA STEEL/TAMPA

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

Interoffice Memorandum

FOR ROUTING TO OTHER THAN THE ADDRESSEE

To: _____ Locatn: _____
To: _____ Locatn: _____
To: _____ Locatn: _____
From: _____ Date: _____

TO: Victor San Agustin

THRU: Clair Fancy
Bill Thomas

FROM: Bruce Mitchell

DATE: June 16, 1986

SUBJ: Rule Applicability Determination on Florida Steel Tampa Mill's Continuous Casting Operation as Requested by Hillsborough County's EPC

From a review of the information submitted and conversations with Mr. Victor San Agustin (HCEPC) and Mr. Earl Hendry (FL Steel Corp.), the following information was gathered:

- the continuous caster operation is housed in the same building with the EAF's
- there is approximately a 20' x 60' hole in the roof to dissipate any heat and smoke that rises to the top of the building
- after tapping an EAF into a ladle, the ladle is transferred with a ceiling hoist to a ladle rack, which can hold two at a time and they are situated above the continuous casting unit
- approximately 9 ladles (heats) per 8-hour shift is processed and the mill is operating 24-hours/day, 5 days/week
- the continuous casting operation is existing and has never had any pollution control system associated with it (unenclosed operation)
- the heat and smoke mix in the ceiling roof from all operations prior to exiting the roof vent
- Victor said that VE's can only be taken on the casting operation when the wind is out of the east and possibly the south

- o a mass emission standard could not be verified through a compliance test because there is not a stack

- o Hillsborough County EPC does not desire a mass emission standard, but only a VE standard for regulatory purposes

Based on the data, the source would be exempt from RACT in accordance with FAC Rule 17-2.650(2)(b)6., Exemptions.

The source would be considered an "unconfined emissions" source. Pursuant to FAC Rule 17-2.100(200), "unconfined emissions" is defined as "emissions which escape and become airborne from unenclosed operations or which are emitted into the atmosphere without being conducted through a stack". Unconfined emissions are regulated in accordance with FAC Rule 17-2.610(3), which states that "no person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any source whatsoever, including, but not limited, vehicular movement, transportation of materials, construction, alteration, demolition or wrecking, or industrially related activities such as loading, unloading, storing or handling, without taking reasonable precautions to prevent such emission".

Reasonable precautions to be taken may include, but shall not be limited to:

- o FAC Rule 17-2.610(3)(c)

- o those found on page 3a of the package submitted by Dr. Robert S. Sholtes dated April 8, 1986

- o any other that is supported by rule(s) and policy

- o any agreed to between the department and the permittee

BM/ks

BM/AGUSTIN
KIM/MISCELL

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

Interoffice Memorandum

FOR ROUTING TO OTHER THAN THE ADDRESSEE

To: _____ Loctn: _____
To: _____ Loctn: _____
To: _____ Loctn: _____
From: _____ Date: _____

TO: Victor San Agustin

THRU: Clair Fancy
Bill Thomas

FROM: Bruce Mitchell

DATE: June 16, 1986

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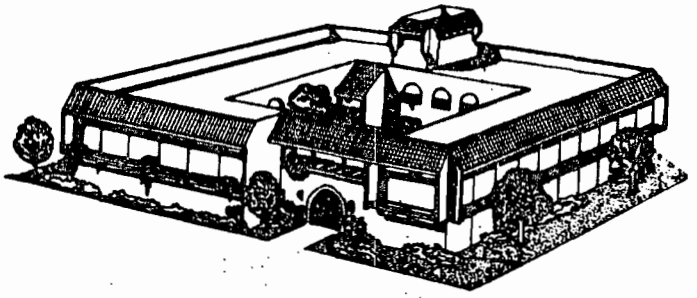
- any other that is supported by rule(s) and policy
- any agreed to between the department and the permittee

BM/ks

HILLSBOROUGH COUNTY
ENVIRONMENTAL PROTECTION
COMMISSION

RODNEY COLSON
RON GLICKMAN
PAM IORIO
RUBIN E. PADGETT
JAN KAMINIS PLATT
JAMES D. SELVEY
PICKENS C. TALLEY II



ROGER P. STEWART
DIRECTOR

1900 - 9th AVE
TAMPA, FLORIDA 33605

TELEPHONE (813) 272-5960

DER

JUN 13 1986

BAQM

May 29, 1986

Mr. Earl Hendry, Plant Manager
Florida Steel Corporation
Post Office Box 23328
Tampa, FL 33623

RE: Continuous Casting Operations

Dear Mr. Hendry:

The purpose of this letter is to inform you the Bureau of Air Quality Management in Tallahassee has not yet finalized their position on what rule should regulate emissions from the continuous casting operations. As such, I cannot arrange our planned meeting between your company, the Florida Department of Environmental Regulation, and our Agency. I will keep you posted on the status of the Bureau's progress.

In the light of this matter, we are reshifting the deadline date for submission to June 20, 1986.

Please keep this letter in your files for future references. If you have any questions, please call me.

Sincerely,

Victor San Agustin

Victor San Agustin
Senior Air Permitting Engineer
Hillsborough County Environmental
Protection Commission

cc: Bill Thomas, FDER
Dr. R. Sholtes, Sholtes & Koogler

HILLSBOROUGH COUNTY
ENVIRONMENTAL PROTECTION
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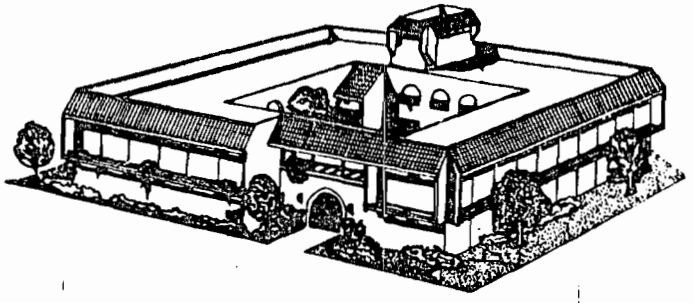


ROGER P. STEWART
DIRECTOR

1900 - 9th AVE
TAMPA, FLORIDA 33605

TELEPHONE (813) 272-5960

MEMORANDUM

Date April 23, 1986

To Clair Fancy

From Victor San Agustin thru Jerry Campbell VSA JC

Subject: Unpermitted Continuous Casting Operations at Florida Steel

Enclosed is a copy of a cover letter and an unsigned permit application submitted by Dr. Sholtes on behalf of Florida Steel Corporation. The purpose of this memo is to inform you of our Agency's position on what rules and emission levels should limit the emissions from Florida Steel's Continuous Casting operations. This memo requests that you provide us the Department's position on this matter.

As you can see in the cover letter, Dr. Sholtes requested that he would like to meet with our Agency in the very near future to discuss areas of disagreement and additional permit conditions we would impose on the source. We will need a representative from the Southwest District and perhaps, Mr. Early or Ms. Cobb to attend the meeting. I will coordinate the meeting date, time, and place. All concerned parties should receive a call from me. I hope the Department's position is set before the meeting. Please be advised there is an open enforcement case on the company and this project is part of the case. The signed Consent Order requires Florida Steel to submit the permit application expeditiously.

The steel mill is located approximately two miles east of the center of the particulate non-attainment area. Sources of particulate matter emissions, including unconfined sources, are required to comply with the requirements of Particulate RACT. Section 17-2.650(2)(b), F.A.C., specifically exempts 6 kinds of sources or facilities, so exemptions for such sources should be granted. Furthermore, any source that does not fall under the applicability section of Section 17-2.650(2)(a), F.A.C., should also qualify for an exemption. I do not see anything in the rules that apply PM RACT to only "traditional" point sources with confined emission points. I do see however, that sources of unconfined particulate emissions located with the PM NAA are subject to PM RACT rules. Closely applicable exemption provisions are Subsections 17-2.650 (2)(a)3. and (2)(b)4., F.A.C., but they specifically exempt only those unconfined particulate sources located more than 5 km outside the boundary of the PM NAA. The concasting operation is clearly not exempted and should comply with an applicable

rule in Section 17-2.600, F.A.C., or with the most applicable of twelve RACT categories. Having read all applicability sections of 17-2.600 and 650, F.A.C., I believe Subsection 17-2.650(2)(c)12., F.A.C., is most applicable. This subsection clearly states it shall apply to methods or forms of manufacture or processing which has not been established in 17-2.600 nor in 17-2.650(2)(c)1. through 11. The source in question does not seem to be applicable under any of the categories of Section 17-2.600, F.A.C.

Subsection 17-2.650(2)(c)12., F.A.C. limits particulate matter emissions from sources without pollution control equipment to 0.03 gr/dscf and no visible emissions. Smoke and high temperature gases from the continuous casting operation enters the outdoor atmosphere by natural heat convection through a roof vent with dimensions approximately 20 ft. x 60 ft. There are no fans, capture hoods, ducts, nor control equipment which vent the emissions to the roof vent. In the light of this situation, only the no visible emissions restriction should apply so we intend to enforce the visible emissions standard only.

Your assistance in the project will be most appreciated. If I can be of any assistance, please call me at SC 571-5960.

VSA/ch

cc: Bill Thomas, FDER

SHOLTES & KOOGLER, ENVIRONMENTAL CONSULTANTS
1213 N.W. 6th Street Gainesville, Florida 32601 (904) 377-5822

SKEC 101-86-06

April 8, 1986

Mr. Victor San Agustin
Hillsborough County Environmental
Protection Commission
1900 9th Avenue
Tampa, Florida 33605

Subject: Permit Application
Continuous Casting Operations
Florida Steel Corporation
Tampa Mill Division

Dear Mr. San Agustin:

The attached permit application is one of three being prepared as a result of the Consent Order which Florida Steel Corporation executed in the very recent past. It is the distinct feeling of myself and the Florida Steel Corporation that the continuous casting operation is subject to permitting but under the provisions of unconfined emission sources rather than a point source emission configuration. In this context, it is recognized that permit provisions must be included with the anticipated permit which would describe the reasonable precautions necessary in order for Florida Steel Corporation to retain the permit. In the attached application, Florida Steel Corporation has included a list of suggested reasonable precautions and in light of the lack of guidelines with respect to these types of provisions would request that you review this permit and the associated provisions with the thought of meeting with representatives of Florida Steel in the near future to discuss any additional permit conditions you might anticipate. This consultation is being requested prior to formal submission of the permit application in an effort to identify any areas of disagreement that might exist prior to the initiation of the 90-day processing period associated with issuance of permits.

It is my understanding that the Consent Agreement between Florida Steel and your office requires that this and other permit applications be submitted no later than May 2, 1986. In light of this schedule I would request that you entertain the idea of a meeting between ourselves in the very near future in order that this deadline be realized.

We are looking forward to your consideration of this request.

Sincerely,

SHOLTES & KOOGLER,
ENVIRONMENTAL CONSULTANTS

Robert S. Sholtes, Ph.D.,P.E.

RSS:ssc
Enclosure

cc: Mr. Earl Hendry

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

ST. JOHNS RIVER DISTRICT
3319 MAGUIRE BOULEVARD
SUITE 232
ORLANDO, FLORIDA 32803

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

ALEX SENKEVICH
DISTRICT MANAGER

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Steel Manufacturing [ ] New[1] [x] Existing[1]

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

COMPANY NAME: Florida Steel Corporation, Tampa Mill COUNTY: Hillsborough

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) Continuous Casting Machine

SOURCE LOCATION: Street 7105 6th Avenue City Tampa

UTM: East (17) 364.63 km North 3092.82 km

Latitude 27 ° 57 ' 18 "N Longitude 82 ° 22 ' 34 "W

APPLICANT NAME AND TITLE: Earl Hendry, Manager

APPLICANT ADDRESS: Post Office Box 23328, Tampa, Florida 33623

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

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

I certify that the statements made in this application for a n Operating 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: _____

Earl Hendry, Manager
Name and Title (Please Type)

Date: _____ Telephone No. _____

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, that

[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, Ph.D., P.E.
Name (Please Type)

Sholtes & Koogler, Environmental Consultants
Company Name (Please Type)

1213 NW 6th Street, Gainesville, Florida 32601
Mailing Address (Please Type)

Florida Registration No. 7601 Date: _____ Telephone No. (904) 377-5822

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 Material

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

Start of Construction _____ 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.)

Not Applicable

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

This casting machine has never been permitted. The associated electric arc furnaces/baghouses have been permitted for many years.

CONTINUOUS CASTER

For many years Florida Steel Corporation has operated a secondary steel manufacturing facility in Tampa, Florida. Portions of this operation have been permitted with respect to air pollution sources under the provisions of the Florida Statutes. At this time the State of Florida through the Hillsborough County Environmental Protection Commission has requested that the continuous casting operation at this facility apply for and hold an air pollution source permit.

The process carried out at this facility is basically one of receiving scrap steel from various sources, melting and refining this metal in two electric arc furnaces, casting the refined steel into billets, reheating these billets in a reheat furnace and rolling the reheated billets into round bar shapes, primarily consisting of concrete reinforcing bars. The continuous casting operation, which is the subject of this permit application, is only one part of the overall facility process.

Subsequent to tapping a heat of steel from one of the two electric arc furnaces, the molten steel is carried to the continuous casting operation in a ladle. The contiuous casting facility has provision for two ladles on the ladle rack. Each ladle is thus positioned over a tundish. The molten steel is allowed to drain out of the bottom of the ladle into the tundish which distributes the molten steel to two continuous molds which form the cooling and casting facility of each casting machine. It should be recognized that two billets are cast simultaneously from the molten steel which is being released from the ladle. As the billets are cast, they are automatically cut to length and stored in the billet storage area. The facility is capable of handling 30 tons per hour of steel. There are no alloy or other additions to the molten steel in the ladle while it is positioned on the ladle rack. Occasionally, the steel will be cool or the temperature will be dropping prematurely and a cover is placed on the ladle to minimize convective and radiant heat loss. This cover is not tight enough to prevent smoke emissions.

Pollution emissions from this operation originate from the ladle with the molten (approximately 2900°F) steel, from the steel moving through the tundish and from the vaporization of casting lubricant used in the two-strand casting machine. In all cases, smoke emissions are at a minimum.

There are no emission estimates available through the various EPA emission factors documents nor are there any recognized measurement techniques to evaluate these emissions.

E. Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 50 ;

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

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? YES

   a. If yes, has "offset" been applied? NO

   b. If yes, has "Lowest Achievable Emission Rate" been applied? NO

   c. If yes, list non-attainment pollutants. Particulate Matter

2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. NO

3. Does the State "Prevention of Significant Deterioration" (PSD) requirement apply to this source? If yes, see Sections VI and VII. NO

4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? NO

5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? NO

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.

See Attached Sheet

As presently constituted, the Section 17-2.650 RACT rules are clearly for traditional point sources wherein emission measurements are attainable through some confined emission point, typically a duct or stack discharging to the ambient air.

The continuous casting machines which are the subject of this permit application, fall under the definition of "Unconfined Emissions" and Section 17-2.610(3), FAC, Unconfined Emissions of Particulate Matter.*** Section 17-2.610(3) recognizes that in these cases perhaps quantitative emission limits are not practicable. This regulation further states that where a permit is issued to such a source, the permit shall spell out those reasonable precautions the source shall take to control these unconfined emissions.

Having considered this need and utilizing the staff's familiarity with the process, Florida Steel suggests the following set of reasonable precautions for the anticipated permit:

1. No additions of slagging materials or other smoke generating materials will be made to the ladle while it is in the continuous casting process.

2. The use of caster lubricating oil will be held to the minimum possible in order to minimize the generation of smoke.

3. Caster lubricants will be selected to the extent economically possible to have minimal smoke generating potential.

4. All ladles, tundish and associated equipment will be maintained in a condition such that pollutant emissions will be minimized.

*** In Chapter 17-2, Unconfined Emissions are defined as "Emissions which escape and become airborne from unenclosed operations or which are emitted into the atmosphere without being conducted through a stack."

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		
Molten Steel	Not Applicable		30 tph	Not Applicable

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

1. Total Process Input Rate (lbs/hr): _____

2. Product Weight (lbs/hr): _____

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	
Part. Matter	See data related to Section H, Page 3.						
	There are no reliable test methods or emission factors						
	for determining the emissions from this source.						

[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)
Not Applicable				

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
None			

*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.

_____

_____

_____

_____

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

Stack Height: Not Applicable 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 Diameter: _____ 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

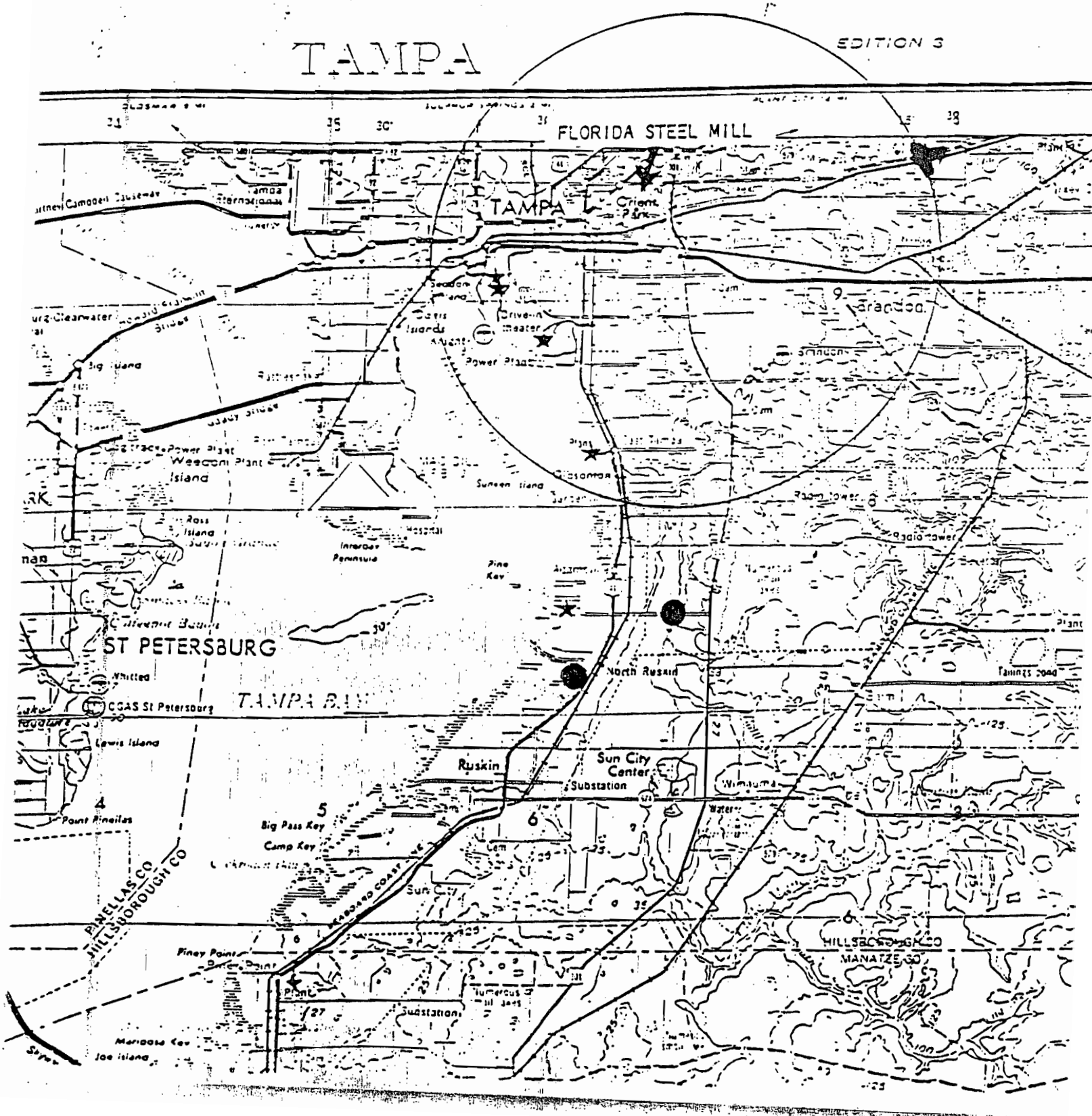
Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

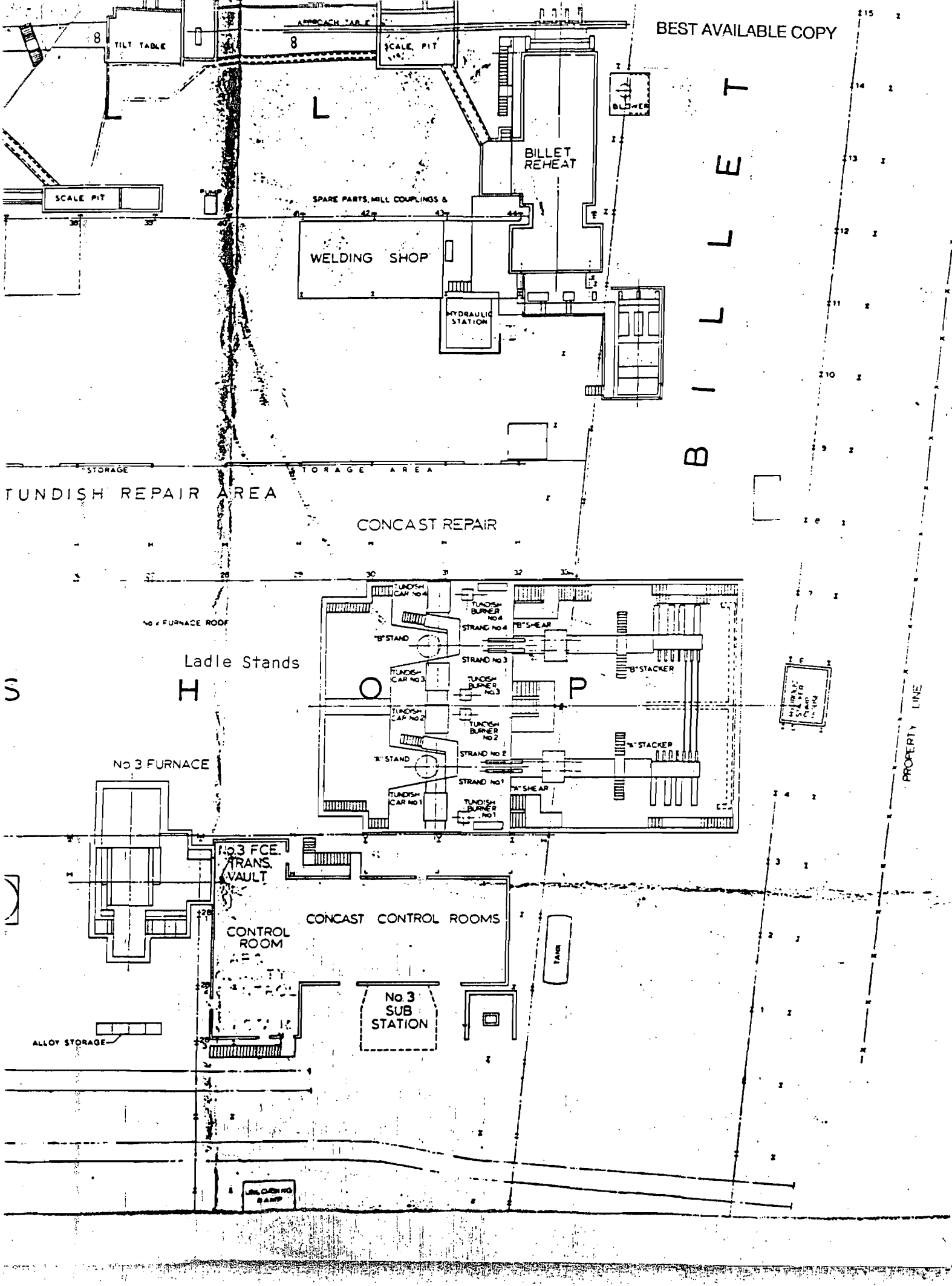
F. Attach all other information supportive to the PSD review.

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.

HILLSBOROUGH CO P.M.
NON-ATTAINMENT AREA





SHOLTES & KOOGLER, ENVIRONMENTAL CONSULTANTS
1213 N.W. 6th Street Gainesville, Florida 32601 (904) 377-5822

1213 NW 6TH ST ■ GAINESVILLE, FL 32601 ■ 904-377-5822

ROBERT S. SHOLTES, Ph.D., P.E.

SHOLTES & KOOGLER
Environmental Consultants

SKEC 101-86-06

May 5, 1986

Mr. Bill Thomas
Bureau of Air Quality Management
Florida Department of
Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

Re: Proposed Permit for Florida Steel Corporation Continuous Caster

Dear Mr. Thomas:

I am aware that Mr. Victor San Agustin has forwarded to you his comments relative to the applicability of RACT regulations to a proposed permit on the above source at Florida Steel in Tampa. I would like to provide the enclosed comments on this same subject before you take any action with Mr. San Agustin.

The proposed permit was requested by the Hillsborough County Environmental Protection Commission as one of three requested permits for the affected facilities. Like the other sources, the continuous caster has been in operation for many years however, did not have an air pollution permit. In this respect, I know of no other continuous caster in the Florida Steel network or any other steel corporation that is required to have such a permit. We do not debate the right of Hillsborough County/FDER to request a permit on this source but do seem to have differences of opinion as to what portion of the applicable regulation is appropriate for this source.

Mr. San Agustin seems to say in his letter to you (based on a brief visual review that all sources in a non-attainment areas must fit into one of the RACT categories. I disagree with this basic premise. The sources listed under RACT were in large part the result of a PEDCO study done for FDER via EPA Region IV. This and the

corollary state efforts were aimed at covering the majority of point sources in the then recognized particulate non-attainment areas of Jacksonville and Tampa.

In the board hearings where RACT was adopted, repeated emphasis was put on the fact that no existing industry was faced with a major expenditure to meet these regulations and that economic impacts had been a major consideration in the formulation of the regulation. There was no testimony or pretense by the FDER staff that all envisioned sources in a non-attainment area would necessarily fit into one of the twelve categories.

To insist that the continuous caster at the Tampa mill be forced into Category 12, "Miscellaneous Manufacturing Process Operations", is merely an indirect way of imposing major economic burden on this mill for little or no benefit and additionally, with no regulatory justification.

This proposed action on the part of Mr. San Agustin is also contrary to FDER precedent in this manner as described below.

During the last twelve months, there have been workshops and some actions toward making changes to Chapter 17-2 the air pollution regulation in the state. At one time there were over 100 proposed modifications or changes being considered. The more non-controversial of these have been adopted or are actively moving forward toward ERC action, if my understanding of the situation is correct. The remaining items including the one to be mentioned, are still under consideration and at last word I had, would be taken up in workshops late in 1986. The point here is that among these items for consideration is one which would create RACT regulations for unconfined emission sources or fugitive emission sources in non-attainment areas. Obviously, in delineating a need for such addition for Chapter 17-2, FDER is recognizing that fugitive emission sources are not currently under RACT.

I would point out to you that for many years, at least two and possibly more permits have been issued in a particulate non-attainment area under the unconfined emission rule of Chapter 17-2. Specifically, these are permits A016-40678 and A016-47351. This precedent certainly demonstrates that it is within the FDER regulation and policy that permits be issued in non-attainment areas under rules other than those described in Section 17-2.650, the RACT series.

I would suggest you and your staff give these brief comments serious consideration and should you desire, I will spend more time discussing this issue if you consider it warranted. It should be understood however, that to comply with Mr. San Agustin desires would involve a major reconstruction of the Tampa mill far in excess of any expenditure that would be justified on the basis of improvement in ambient air quality.

Sincerely,

SHOLTES & KOOGLER,
ENVIRONMENTAL CONSULTANTS

Robert S. Sholtes, Ph.D.,P.E.

RSS:pdt

cc: Mr. Earl Hendry

RACT DETERMINATION FOR
FIVE INDUSTRY CATEGORIES
IN FLORIDA

PEDCo ENVIRONMENTAL

Ron!
Steve Schiebler

8/50
24
8

505 S. Duke St.
~~Suite~~ 503
Durham, NC 27701

Ronald

R. Hawks

F
~~513-782-4700~~
919-688-6338

Hawks on Vacation week of Dec 8

Ed. Pfetzing

513-782-4794

Chester Towers
11499 Chester Rd.
Cincinnati Ohio
45246

SECTION 1

INTRODUCTION

National Ambient Air Quality Standards (NAAQS) for total suspended particulates are now being exceeded in portions of Hillsborough and Duval Counties in Florida. The lowering of particulate emissions within these areas requires that new or modified control strategies be developed to ensure that all reasonably available controls are used.

1.1 BACKGROUND

Two areas in Florida have been designated as nonattainment for total suspended particulates. They are defined as follows:

> the portion of Hillsborough County that falls within the area of the circle having a centerpoint at the intersection of U.S. 41 South and State Road 60 and a radius of 12 kilometers, and
>
> the downtown Jacksonville area in Duval County located just north and west of the St. Johns River and east of I-95 and south of Trout River.

Any particulate source that has a significant impact on ambient particulate concentrations within the designated nonattainment area are required to use Reasonably Available Control Technology (RACT) to control particulate emissions.

The application of RACT to existing stationary sources is a required part of the particulate nonattainment corrective portion of the State Implementation Plans (SIP). PEDCo investigated five of the major industry categories that represent the type of sources that are located in the two Florida nonattainment areas to assist the state in determining specific RACT emission limitations. These categories are:

Phosphate process operations

Portland cement plants

Electric arc furnaces

Sweat or pot furnaces

Materials handling, sizing, screening, crushing, and grinding operations

1.2 DEFINITION OF RACT

Section 172(b)(2) of the Clean Air Act as amended August 1977 requires that SIP revisions "provide for the implementation of all reasonably available control measures as expeditiously as practicable." The use of RACT for stationary sources is defined as "the lowest emission limit that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility."[1]

RACT is no longer defined by Appendix B, Code 40 of the Federal Register, Part 51, entitled "Examples of Emission Limitations Attainable With Reasonably Available Technology." Reasonable availability is now based on the technological and

economic feasibility of the control, and requires stringent and even "technology forcing" control measures.[1]

Although consistency in the application of any regulation is important, determination of the "economic feasibility of a control may be very source specific."[1] Therefore, it is possible that exceptions will be made to any RACT regulation on the basis of economics. Such exceptions, however, are expected to be rare. Every effort was made to make the recommended RACT determinations specific for the affected plants in Florida.

The RACT emission limitations submitted in a nonattainment SIP revision are used to calculate the emission reductions needed to attain the NAAQS. Therefore, any deviations from these emission limitations are treated as SIP revisions. For this reason RACT regulations should be adopted only after sufficient study to ensure that they are indeed reasonable for the area in question.

Some of the confusion surrounding RACT stems from the comparision of RACT with other control requirements. Table 1-1 gives a comparison of RACT, Best Available Control Technology (BACT), and Lowest Achievable Emission Rate (LAER) control requirements. Although LAER will generally be more stringent than BACT and BACT will generally be more stringent than RACT, in some instances the required controls may be identical. This would occur if the costs of installing controls at a new source were the same as those of retrofitting controls at an existing source, or if the cost were relatively low. The RACT control would be less stringent than BACT in cases where, for technological or economic

reasons, controls considered feasible for a new or modified source would be unreasonable if an owner were required to retrofit them at an existing source.

The following information sources are used for guidance in RACT determination:

New Source Performance Standards

Documents regarding particulate emission control techniques

Existing state and Federal regulations, especially those in Region IV

Information gathered during plant visits

Information obtained from state representatives

In any SIP revision, the attainment of the NAAQS through the application of a reasonable control strategy is the primary objective. This requires decisions concerning which specific sources should be controlled, based on a realistic comparison of the available control options. Comparison of control costs must consider both total annual costs and cost per ton of pollutant removed. The economic justification for recommended RACT controls relies heavily on such cost comparisons. Technical feasibility analysis takes into account the controls required in other states, plus information in technical publications and an assessment of site specific factors that could affect the technical feasibility of retrofitting and properly operating various technologies.

1.3 APPROACH TO DETERMINATION OF RACT

To satisfy the definition of RACT requires that controls retrofitted at an existing facility be as stringent as possible,

yet both technologically and economically reasonable. Recommended RACT was determined by comparing control options in increasing order of stringency until the next control option was deemed infeasible for either economic or technical reasons. When the economic feasibility of a control option was subject to interpretation, more than one option was given, and the cost in dollars per ton of particulates removed was calculated for comparison by the user. In each case, PEDCo made a judgmental choice of which control option best represents RACT.

In general, the technological feasibility of a control was the first parameter ascertained. Once a control was deemed technologically feasible for retrofit, its economic feasibility was determined. If the control was judged to be both technologically and economically feasible, its efficiency was estimated, and an emission limitation was calculated based on this efficiency. Enforceability was weighed heavily in choosing the method of regulation. A control option that has a high cost in dollars per ton of pollutant removed may be included if it has a small capital cost.

Technological feasibility was based on the demonstration of these control technologies on an identical or similar emission source.

The economic feasibility of a control is less straightforward than its technological feasibility. The cost of retrofitting a control tends to be more plant-specific than the technological feasibility of the control; therefore, economic

feasibility often must be determined on a case-by-case basis. Therefore, information gathered during plant visits was weighed heavily in determining economic feasibilities in this report.

PEDCo used the following general tests to determine whether a specific control could be considered RACT:

The control had a reasonable cost per ton of particulates removed.

The control had a low overall cost.

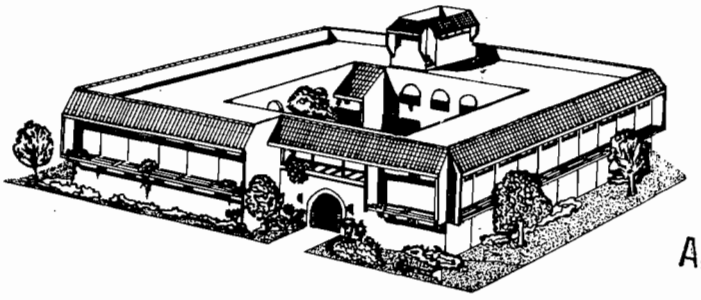
The control has generally been applied in the industry or within similar industries whether it was required by regulation or not.

The control was reasonable in total cost and was capable of meeting the most stringent regulations in Region IV and in the country.

Application of the control would contribute to the attainment of the NAAQS in the present nonattainment areas.

HILLSBOROUGH COUNTY
ENVIRONMENTAL PROTECTION
COMMISSION

RODNEY COLSON
RON GLICKMAN
PAM IORIO
RUBIN E. PADGETT
JAN KAMINIS PLATT
JAMES D. SELVEY
PICKENS C. TALLEY II



ROGER P. STEWART
DIRECTOR

1900 - 9th AVE
TAMPA, FLORIDA 33605
TELEPHONE (813) 272-5960

MEMORANDUM

Date April 23, 1986

To Clair Fancy

From Victor San Agustin thru Jerry Campbell VSA JC

Subject: Unpermitted Continuous Casting Operations at Florida Steel

Enclosed is a copy of a cover letter and an unsigned permit application submitted by Dr. Sholtes on behalf of Florida Steel Corporation. The purpose of this memo is to inform you of our Agency's position on what rules and emission levels should limit the emissions from Florida Steel's Continuous Casting operations. This memo requests that you provide us the Department's position on this matter.

As you can see in the cover letter, Dr. Sholtes requested that he would like to meet with our Agency in the very near future to discuss areas of disagreement and additional permit conditions we would impose on the source. We will need a representative from the Southwest District and perhaps, Mr. Early or Ms. Cobb to attend the meeting. I will coordinate the meeting date, time, and place. All concerned parties should receive a call from me. I hope the Department's position is set before the meeting. Please be advised there is an open enforcement case on the company and this project is part of the case. The signed Consent Order requires Florida Steel to submit the permit application expeditiously.

The steel mill is located approximately two miles east of the center of the particulate non-attainment area. Sources of particulate matter emissions, including unconfined sources, are required to comply with the requirements of Particulate RACT. Section 17-2.650(2)(b), F.A.C., specifically exempts 6 kinds of sources or facilities, so exemptions for such sources should be granted. Furthermore, any source that does not fall under the applicability section of Section 17-2.650(2)(a), F.A.C., should also qualify for an exemption. I do not see anything in the rules that apply PM RACT to only "traditional" point sources with confined emission points. I do see however, that sources of unconfined particulate emissions located with the PM NAA are subject to PM RACT rules. Closely applicable exemption provisions are Subsections 17-2.650 (2)(a)3. and (2)(b)4., F.A.C., but they specifically exempt only those unconfined particulate sources located more than 5 km outside the boundary of the PM NAA. The concasting operation is clearly not exempted and should comply with an applicable

rule in Section 17-2.600, F.A.C., or with the most applicable of twelve RACT categories. Having read all applicability sections of 17-2.600 and 650, F.A.C., I believe Subsection 17-2.650(2)(c)12., F.A.C., is most applicable. This subsection clearly states it shall apply to methods or forms of manufacture or processing which has not been established in 17-2.600 nor in 17-2.650(2)(c)1. through 11. The source in question does not seem to be applicable under any of the categories of Section 17-2.600, F.A.C.

Subsection 17-2.650(2)(c)12., F.A.C. limits particulate matter emissions from sources without pollution control equipment to 0.03 gr/dscf and no visible emissions. Smoke and high temperature gases from the continuous casting operation enters the outdoor atmosphere by natural heat convection through a roof vent with dimensions approximately 20 ft. x 60 ft. There are no fans, capture hoods, ducts, nor control equipment which vent the emissions to the roof vent. In the light of this situation, only the no visible emissions restriction should apply so we intend to enforce the visible emissions standard only.

Your assistance in the project will be most appreciated. If I can be of any assistance, please call me at SC 571-5960.

VSA/ch

cc: Bill Thomas, FDER

SHOLTES & KOOGLER, ENVIRONMENTAL CONSULTANTS
1213 N.W. 6th Street Gainesville, Florida 32601 (904) 377-5822

SKEC 101-86-06

April 8, 1986

Mr. Victor San Agustin
Hillsborough County Environmental
Protection Commission
1900 9th Avenue
Tampa, Florida, 33605

Subject: Permit Application
Continuous Casting Operations
Florida Steel Corporation
Tampa Mill Division

Dear Mr. San Agustin:

The attached permit application is one of three being prepared as a result of the Consent Order which Florida Steel Corporation executed in the very recent past. It is the distinct feeling of myself and the Florida Steel Corporation that the continuous casting operation is subject to permitting but under the provisions of unconfined emission sources rather than a point source emission configuration. In this context, it is recognized that permit provisions must be included with the anticipated permit which would describe the reasonable precautions necessary in order for Florida Steel Corporation to retain the permit. In the attached application, Florida Steel Corporation has included a list of suggested reasonable precautions and in light of the lack of guidelines with respect to these types of provisions would request that you review this permit and the associated provisions with the thought of meeting with representatives of Florida Steel in the near future to discuss any additional permit conditions you might anticipate. This consultation is being requested prior to formal submission of the permit application in an effort to identify any areas of disagreement that might exist prior to the initiation of the 90-day processing period associated with issuance of permits.

It is my understanding that the Consent Agreement between Florida Steel and your office requires that this and other permit applications be submitted no later than May 2, 1986. In light of this schedule I would request that you entertain the idea of a meeting between ourselves in the very near future in order that this deadline be realized.

We are looking forward to your consideration of this request.

Sincerely,

SHOLTES & KOOGLER,
ENVIRONMENTAL CONSULTANTS

Robert S. Sholtes, Ph.D.,P.E.

RSS:ssc
Enclosure

cc: Mr. Earl Hendry

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

ST. JOHNS RIVER DISTRICT
3319 MAGUIRE BOULEVARD
SUITE 232
ORLANDO, FLORIDA 32803

APPLICATION TO OPERATE/~~CONSTRUCT~~ AIR POLLUTION SOURCES

SOURCE TYPE: Steel Manufacturing [ ] New[1] [x] Existing[1]

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

COMPANY NAME: Florida Steel Corporation, Tampa Mill COUNTY: Hillsboroug

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) Continuous Casting Mac

SOURCE LOCATION: Street 7105 6th Avenue City Tampa

UTM: East (17) 364.63 km North 3092.82 km

Latitude 27 ° 57 ' 18 "N Longitude 82 ° 22 ' 34 "W

APPLICANT NAME AND TITLE: Earl Hendry, Manager

APPLICANT ADDRESS: Post Office Box 23328, Tampa, Florida 33623

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

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

I certify that the statements made in this application for a n Operating permit are true, correct and complete to the best of my knowledge and belief. Furt I agree to maintain and operate the pollution control source and pollution cont facilities in such a manner as to comply with the provision of Chapter 403, Flo 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-transfer and I will promptly notify the department upon sale or legal transfer of the permi establishment.

*Attach letter of authorization

Signed: _____

Earl Hendry, Manager
Name and Title (Please Type)

Date: _____ Telephone No. _____

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 h been ~~designed~~/examined by me and found to be in conformity with modern engineer principles applicable to the treatment and disposal of pollutants characterized in permit application. There is reasonable assurance, in my professional judgment, t

[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, Ph.D., P.E.
Name (Please Type)

Sholtes & Koogler, Environmental Consultants
Company Name (Please Type)

1213 NW 6th Street, Gainesville, Florida 32601
Mailing Address (Please Type)

Florida Registration No. 7601 Date: _____ Telephone No. (904) 377-5822

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 Material

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

Start of Construction _____ 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.)

Not Applicable

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

This casting machine has never been permitted. The associated electric arc furnaces/baghouses have been permitted for many years.

CONTINUOUS CASTER

For many years Florida Steel Corporation has operated a secondary steel manufacturing facility in Tampa, Florida. Portions of this operation have been permitted with respect to air pollution sources under the provisions of the Florida Statutes. At this time the State of Florida through the Hillsborough County Environmental Protection Commission has requested that the continuous casting operation at this facility apply for and hold an air pollution source permit.

The process carried out at this facility is basically one of receiving scrap steel from various sources, melting and refining this metal in two electric arc furnaces, casting the refined steel into billets, reheating these billets in a reheat furnace and rolling the reheated billets into round bar shapes, primarily consisting of concrete reinforcing bars. The continuous casting operation, which is the subject of this permit application, is only one part of the overall facility process.

Subsequent to tapping a heat of steel from one of the two electric arc furnaces, the molten steel is carried to the continuous casting operation in a ladle. The contiuous casting facility has provision for two ladles on the ladle rack. Each ladle is thus positioned over a tundish. The molten steel is allowed to drain out of the bottom of the ladle into the tundish which distributes the molten steel to two continuous molds which form the cooling and casting facility of each casting machine. It should be recognized that two billets are cast simultaneously from the molten steel which is being released from the ladle. As the billets are cast, they are automatically cut to length and stored in the billet storage area. The facility is capable of handling 30 tons per hour of steel. There are no alloy or other additions to the molten steel in the ladle while it is positioned on the ladle rack. Occasionally, the steel will be cool or the temperature will be dropping prematurely and a cover is placed on the ladle to minimize convective and radiant heat loss. This cover is not tight enough to prevent smoke emissions.

Pollution emissions from this operation originate from the ladle with the molten (approximately 2900°F) steel, from the steel moving through the tundish and from the vaporization of casting lubricant used in the two-strand casting machine. In all cases, smoke emissions are at a minimum.

There are no emission estimates available through the various EPA emission factors documents nor are there any recognized measurement techniques to evaluate these emissions.

E. Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 50

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

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? YES

   a. If yes, has "offset" been applied? NO

   b. If yes, has "Lowest Achievable Emission Rate" been applied? NO

   c. If yes, list non-attainment pollutants. Particulate Matter

2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. NO

3. Does the State "Prevention of Significant Deterioration" (PSD) requirement apply to this source? If yes, see Sections VI and VII. NO

4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? NO

5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? NO

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.

See Attached Sheet

As presently constituted, the Section 17-2.650 RACT rules are clearly for traditional point sources wherein emission measurements are attainable through some confined emission point, typically a duct or stack discharging to the ambient air.

The continuous casting machines which are the subject of this permit application, fall under the definition of "Unconfined Emissions" and Section 17-2.610(3), FAC, Unconfined Emissions of Particulate Matter.*** Section 17-2.610(3) recognizes that in these cases perhaps quantitative emission limits are not practicable. This regulation further states that where a permit is issued to such a source, the permit shall spell out those reasonable precautions the source shall take to control these unconfined emissions.

Having considered this need and utilizing the staff's familiarity with the process, Florida Steel suggests the following set of reasonable precautions for the anticipated permit:

1. No additions of slagging materials or other smoke generating materials will be made to the ladle while it is in the continuous casting process.

2. The use of caster lubricating oil will be held to the minimum possible in order to minimize the generation of smoke.

3. Caster lubricants will be selected to the extent economically possible to have minimal smoke generating potential.

4. All ladles, tundish and associated equipment will be maintained in a condition such that pollutant emissions will be minimized.

*** In Chapter 17-2, Unconfined Emissions are defined as "Emissions which escape and become airborne from unenclosed operations or which are emitted into the atmosphere without being conducted through a stack."

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		
Molten Steel	Not Applicable		30 tph	Not Applicable

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

1. Total Process Input Rate (lbs/hr): _____

2. Product Weight (lbs/hr): _____

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	
Part. Matter	See data related to Section H, Page 3.						
	There are no reliable test methods or emission factors						
	for determining the emissions from this source.						

[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)
Not Applicable				

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
None			

*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.

_____

_____

_____

_____

M. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: Not Applicable 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) _____

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

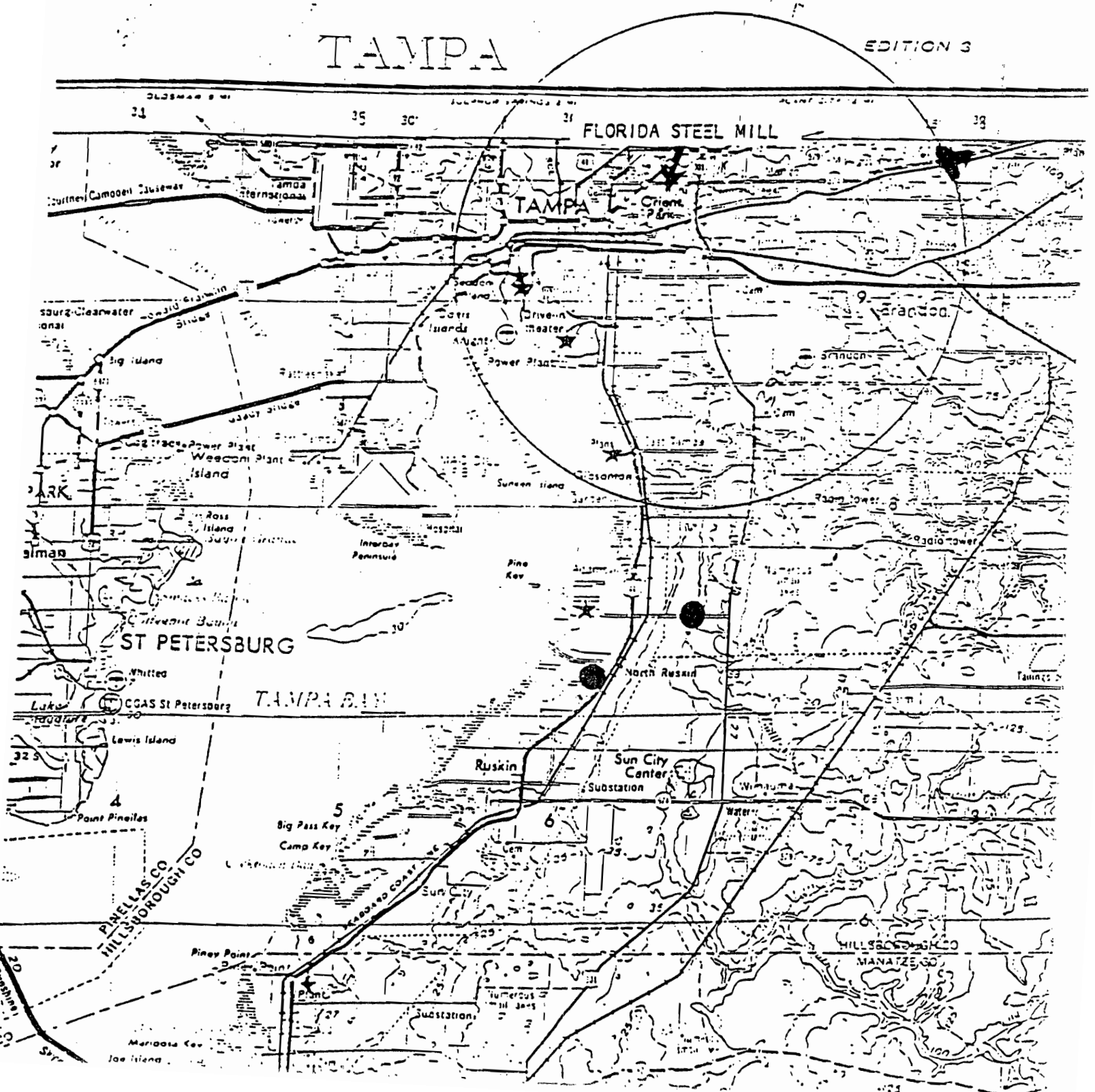
Attach list of emission sources. Emission data required is source name, description of point source (on NEDS point number), UTM coordinates, stack data, allowable emissions, and normal operating time.

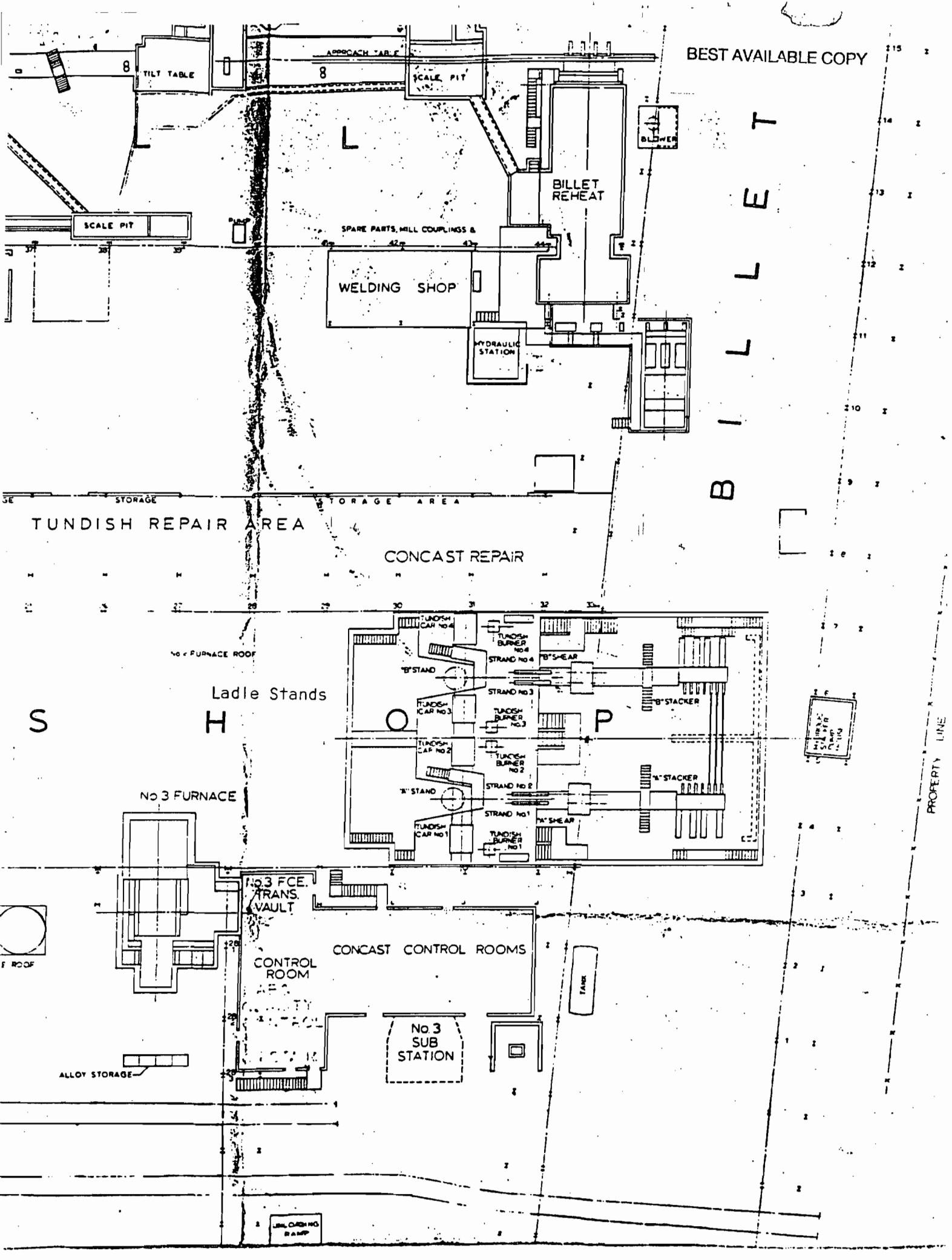
F. Attach all other information supportive to the PSD review.

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.

HILLSBOROUGH CO P.M.
NON-ATTAINMENT AREA



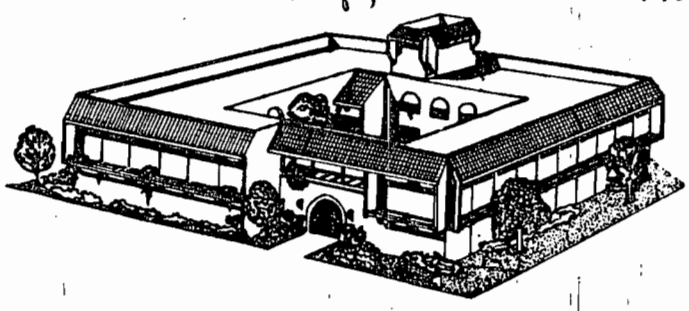


PM
5-20-87
Tampa, FL

Attn: Winfred Hawks

HILLSBOROUGH COUNTY
ENVIRONMENTAL PROTECTION
COMMISSION

RODNEY COLSON
RON GLICKMAN
PAM IORIO
RUBIN E. PADGETT
JAN KAMINIS PLATT
JAMES O. SELVEY
PICKENS C. TALLEY II



ROGER P. STEWART
DIRECTOR

1900 - 9th AVE
TAMPA, FLORIDA 33605

TELEPHONE (813) 272-5960

MEMORANDUM

Date April 23, 1986

To Clair Fancy

From Victor San Agustin thru Jerry Campbell VSA JC

Subject: Unpermitted Continuous Casting Operations at Florida Steel

Enclosed is a copy of a cover letter and an unsigned permit application submitted by Dr. Sholtes on behalf of Florida Steel Corporation. The purpose of this memo is to inform you of our Agency's position on what rules and emission levels should limit the emissions from Florida Steel's Continuous Casting operations. This memo requests that you provide us the Department's position on this matter.

As you can see in the cover letter, Dr. Sholtes requested that he would like to meet with our Agency in the very near future to discuss areas of disagreement and additional permit conditions we would impose on the source. We will need a representative from the Southwest District and perhaps, Mr. Early or Ms. Cobb to attend the meeting. I will coordinate the meeting date, time, and place. All concerned parties should receive a call from me. I hope the Department's position is set before the meeting. Please be advised there is an open enforcement case on the company and this project is part of the case. The signed Consent Order requires Florida Steel to submit the permit application expeditiously.

The steel mill is located approximately two miles east of the center of the particulate non-attainment area. Sources of particulate matter emissions, including unconfined sources, are required to comply with the requirements of Particulate RACT. Section 17-2.650(2)(b), F.A.C., specifically exempts 6 kinds of sources or facilities, so exemptions for such sources should be granted. Furthermore, any source that does not fall under the applicability section of Section 17-2.650(2)(a), F.A.C., should also qualify for an exemption. I do not see anything in the rules that apply PM RACT to only "traditional" point sources with confined emission points. I do see however, that sources of unconfined particulate emissions located with the PM NAA are subject to PM RACT rules. Closely applicable exemption provisions are Subsections 17-2.650 (2)(a)3. and (2)(b)4., F.A.C., but they specifically exempt only those unconfined particulate sources located more than 5 km outside the boundary of the PM NAA. The concasting operation is clearly not exempted and should comply with an applicable

rule in Section 17-2.600, F.A.C., or with the most applicable of twelve RACT categories. Having read all applicability sections of 17-2.600 and 650, F.A.C., I believe Subsection 17-2.650(2)(c)12., F.A.C., is most applicable. This subsection clearly states it shall apply to methods or forms of manufacture or processing which has not been established in 17-2.600 nor in 17-2.650(2)(c)1. through 11. The source in question does not seem to be applicable under any of the categories of Section 17-2.600, F.A.C.

Subsection 17-2.650(2)(c)12., F.A.C. limits particulate matter emissions from sources without pollution control equipment to 0.03 gr/dscf and no visible emissions. Smoke and high temperature gases from the continuous casting operation enters the outdoor atmosphere by natural heat convection through a roof vent with dimensions approximately 20 ft. x 60 ft. There are no fans, capture hoods, ducts, nor control equipment which vent the emissions to the roof vent. In the light of this situation, only the no visible emissions restriction should apply so we intend to enforce the visible emissions standard only.

Your assistance in the project will be most appreciated. If I can be of any assistance, please call me at SC 571-5960.

VSA/ch

cc: Bill Thomas, FDER

SHOLTES & KOOGLER, ENVIRONMENTAL CONSULTANTS
1213 N.W. 6th Street, Gainesville, Florida 32601 (904) 377-5822

SKEC 101-86-06

April 8, 1986

Mr. Victor San Agustin
Hillsborough County Environmental
Protection Commission
1900 9th Avenue
Tampa, Florida 33605

Subject: Permit Application
Continuous Casting Operations
Florida Steel Corporation
Tampa Mill Division

Dear Mr. San Agustin:

The attached permit application is one of three being prepared as a result of the Consent Order which Florida Steel Corporation executed in the very recent past. It is the distinct feeling of myself and the Florida Steel Corporation that the continuous casting operation is subject to permitting but under the provisions of unconfined emission sources rather than a point source emission configuration. In this context, it is recognized that permit provisions must be included with the anticipated permit which would describe the reasonable precautions necessary in order for Florida Steel Corporation to retain the permit. In the attached application, Florida Steel Corporation has included a list of suggested reasonable precautions and in light of the lack of guidelines with respect to these types of provisions would request that you review this permit and the associated provisions with the thought of meeting with representatives of Florida Steel in the near future to discuss any additional permit conditions you might anticipate. This consultation is being requested prior to formal submission of the permit application in an effort to identify any areas of disagreement that might exist prior to the initiation of the 90-day processing period associated with issuance of permits.

It is my understanding that the Consent Agreement between Florida Steel and your office requires that this and other permit applications be submitted no later than May 2, 1986. In light of this schedule I would request that you entertain the idea of a meeting between ourselves in the very near future in order that this deadline be realized.

We are looking forward to your consideration of this request.

Sincerely,

SHOLTES & KOOGLER,
ENVIRONMENTAL CONSULTANTS

Robert S. Sholtes, Ph.D.,P.E.

RSS:ssc
Enclosure

cc: Mr. Earl Hendry

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

ST. JOHNS RIVER DISTRICT
3319 MAGUIRE BOULEVARD
SUITE 232
ORLANDO, FLORIDA 32803

BOB GRAHA
GOVERN
VICTORIA J. TSCHINKE
SECRETA
ALEX SENKEVI
DISTRICT MANAG

APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

SOURCE TYPE: Steel Manufacturing [ ] New[1] [x] Existing[1]

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

COMPANY NAME: Florida Steel Corporation, Tampa Mill COUNTY: Hillsborough

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) Continuous Casting Mach

SOURCE LOCATION: Street 7105 6th Avenue City Tampa

UTM: East (17) 364.63 km North 3092.82 km

Latitude 27 ° 57 ' 18 "N Longitude 82 ° 22 ' 34 "W

APPLICANT NAME AND TITLE: Earl Hendry, Manager

APPLICANT ADDRESS: Post Office Box 23328, Tampa, Florida 33623

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

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

I certify that the statements made in this application for an Operating permit are true, correct and complete to the best of my knowledge and belief. Furt I agree to maintain and operate the pollution control source and pollution con facilities in such a manner as to comply with the provision of Chapter 403, Flo 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-transfer and I will promptly notify the department upon sale or legal transfer of the permi establishment.

*Attach letter of authorization

Signed: _____

Earl Hendry, Manager
Name and Title (Please Type)

Date: _____ Telephone No. _____

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 h been designed/examined by me and found to be in conformity with modern enginee principles applicable to the treatment and disposal of pollutants characterized in permit application. There is reasonable assurance, in my professional judgment, t

[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, Ph.D., P.E.
Name (Please Type)

Sholtes & Koogler, Environmental Consultants
Company Name (Please Type)

1213 NW 6th Street, Gainesville, Florida 32601
Mailing Address (Please Type)

Florida Registration No. 7601 Date: _____ Telephone No. (904) 377-5822

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 Material

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

Start of Construction _____ 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.)

Not Applicable

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

This casting machine has never been permitted. The associated electric arc furnaces/baghouses have been permitted for many years.

CONTINUOUS CASTER

For many years Florida Steel Corporation has operated a secondary steel manufacturing facility in Tampa, Florida. Portions of this operation have been permitted with respect to air pollution sources under the provisions of the Florida Statutes. At this time the State of Florida through the Hillsborough County Environmental Protection Commission has requested that the continuous casting operation at this facility apply for and hold an air pollution source permit.

The process carried out at this facility is basically one of receiving scrap steel from various sources, melting and refining this metal in two electric arc furnaces, casting the refined steel into billets, reheating these billets in a reheat furnace and rolling the reheated billets into round bar shapes, primarily consisting of concrete reinforcing bars. The continuous casting operation, which is the subject of this permit application, is only one part of the overall facility process.

Subsequent to tapping a heat of steel from one of the two electric arc furnaces, the molten steel is carried to the continuous casting operation in a ladle. The contiuous casting facility has provision for two ladles on the ladle rack. Each ladle is thus positioned over a tundish. The molten steel is allowed to drain out of the bottom of the ladle into the tundish which distributes the molten steel to two continuous molds which form the cooling and casting facility of each casting machine. It should be recognized that two billets are cast simultaneously from the molten steel which is being released from the ladle. As the billets are cast, they are automatically cut to length and stored in the billet storage area. The facility is capable of handling 30 tons per hour of steel. There are no alloy or other additions to the molten steel in the ladle while it is positioned on the ladle rack. Occasionally, the steel will be cool or the temperature will be dropping prematurely and a cover is placed on the ladle to minimize convective and radiant heat loss. This cover is not tight enough to prevent smoke emissions.

Pollution emissions from this operation originate from the ladle with the molten (approximately 2900°F) steel, from the steel moving through the tundish and from the vaporization of casting lubricant used in the two-strand casting machine. In all cases, smoke emissions are at a minimum.

There are no emission estimates available through the various EPA emission factors documents nor are there any recognized measurement techniques to evaluate these emissions.

E. Requested permitted equipment operating time: hrs/day 24 ; days/wk 7 ; wks/yr 50

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

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? YES

   a. If yes, has "offset" been applied? NO

   b. If yes, has "Lowest Achievable Emission Rate" been applied? NO

   c. If yes, list non-attainment pollutants. Particulate Matter

2. Does best available control technology (BACT) apply to this source? If yes, see Section VI. NO

3. Does the State "Prevention of Significant Deterioriation" (PSD) requirement apply to this source? If yes, see Sections VI and VII. NO

4. Do "Standards of Performance for New Stationary Sources" (NSPS) apply to this source? NO

5. Do "National Emission Standards for Hazardous Air Pollutants" (NESHAP) apply to this source? NO

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.

See Attached Sheet

As presently constituted, the Section 17-2.650 RACT rules are clearly for traditional point sources wherein emission measurements are attainable through some confined emission point, typically a duct or stack discharging to the ambient air.

The continuous casting machines which are the subject of this permit application, fall under the definition of "Unconfined Emissions" and Section 17-2.610(3), FAC, Unconfined Emissions of Particulate Matter.*** Section 17-2.610(3) recognizes that in these cases perhaps quantitative emission limits are not practicable. This regulation further states that where a permit is issued to such a source, the permit shall spell out those reasonable precautions the source shall take to control these unconfined emissions.

Having considered this need and utilizing the staff's familiarity with the process, Florida Steel suggests the following set of reasonable precautions for the anticipated permit:

1. No additions of slagging materials or other smoke generating materials will be made to the ladle while it is in the continuous casting process.

2. The use of caster lubricating oil will be held to the minimum possible in order to minimize the generation of smoke.

3. Caster lubricants will be selected to the extent economically possible to have minimal smoke generating potential.

4. All ladles, tundish and associated equipment will be maintained in a condition such that pollutant emissions will be minimized.

*** In Chapter 17-2, Unconfined Emissions are defined as "Emissions which escape and become airborne from unenclosed operations or which are emitted into the atmosphere without being conducted through a stack."

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		
Molten Steel	Not Applicable		30 tph	Not Applicable

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

1. Total Process Input Rate (lbs/hr): _____

2. Product Weight (lbs/hr): _____

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	
Part. Matter	See data related to Section H, Page 3.						
	There are no reliable test methods or emission factors						
	for determining the emissions from this source.						

[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)
Not Applicable				

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
None			

*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.

_____

_____

_____

_____

M. Emission Stack Geometry and Flow Characteristics (Provide data for each stack):

Stack Height: Not Applicable 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 Diameter: _____ 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) _____