STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

July 11, 1986

Found on Oracle

Florida Steel Corp

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

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

Dear Mr. Hendry:

Attached is one copy of the Technical Evaluation and Preliminary Determination, and proposed permit to construct a dust reclamation system at your Tampa Mill in Hillsborough County, Florida.

Please submit, in writing, any comments which you wish to have considered concerning the department's proposed action to Mr. Bill Thomas of the Bureau of Air Quality Management.

Sincerely,

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

CHF/pa

Attachments

cc: Robert S. Sholtes, P.E.
Victor San Agustin
Jim Estler

State of Florida
Department of Environmental Regulation
Notice of Intent

The Department gives notice of its intent to issue a permit to Florida Steel Corporation to construct a dust reclamation system to collect and recover/reclaim zinc, lead, and iron oxide emitted from two electric arc furnaces. The proposed construction will take place at the Florida Steel Corporation Tampa Mill located at 7105 6th Avenue, Tampa, Hillsborough County, Florida. A determination of best available control technology (BACT) was not required.

Persons whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative determination (hearing) in accordance with Section 120.57, Florida Statutes. The petition must conform to the requirements of Chapters 17-103 and 28-5, Florida Administrative Code, and must be filed (received) in the Department's Office of General Counsel, 2600 Blair Stone Road, Twin Towers Office Building, Tallahassee, Florida 32301, within fourteen (14) days of publication of this notice. Failure to file a petition within this time period constitutes a waiver of any right such person has to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

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 proposed agency action. Therefore, persons who may not wish to file a petition may wish to intervene in the proceeding. A petition for intervention must be filed pursuant to Rule 28-5.207, Florida Administrative Code, at least five (5) days before the final hearing and be filed with the hearing officer if one has been assigned at the Division of Administrative Hearings, Department of Administration, 2009, Apalachee Parkway, Tallahassee, Florida 32301. If no hearing officer has been assigned, the petition is to be filed with the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32301. Failure to petition to intervene within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, Florida Statutes.

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

Dept. of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Tallahassee, Florida 32301

Dept. of Environmental Regulation
Southwest District
7601 Highway 301 North
Tampa, Florida 33610

Hillsborough County Environmental Protection Commission
1900 Ninth Avenue
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 30 days of the publication of this notice will be considered in the department's final determination.

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

In the Matter of
Application for Permit by:

Florida Steel Corporation
Post Office Box 23328
Tampa, Florida 33623

DER File No. AC 29-117627

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 April 4, 1986, to the Department of Environmental Regulation for a permit to construct a dust reclamation system at the applicant's existing 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 was needed for the proposed work.

Pursuant to Section 403.815, F.S. and DER Rule 17-103.150, FAC, you (the applicant) are required to publish at your own expense the enclosed Notice of Proposed Agency Action on permit application. The notice must be published one time only in a section of a major local newspaper of general circulation in the county in which the project is located and within thirty (30) days from receipt of this intent. Proof of publication must be provided to the Department within seven days of publication of

the notice. 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 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. Petitions must comply with the requirement of Florida Administrative Code Rules 17-103.155 and 28-5.201 (copies enclosed) and be filed with (received by) the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32301-8241. Petitions filed by the permit applicant must be filed within fourteen (14) days of receipt of this intent. Petitions filed by other persons must be filed within fourteen (14) days of publication of the public notice or within fourteen (14) days of receipt of this intent, whichever first occurs. 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, concerning the subject permit application. Petitions which are not filed in accordance with the above provisions will be dismissed.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

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

Copies furnished to:

Robert S. Sholtes, P.E.
Victor San Agustin
Jim Estler

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 July 11, 1986.

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.

Patricia G. Adams
Clerk

July 11, 1986
Date

RULES OF THE ADMINISTRATIVE COMMISSION
MODEL RULES OF PROCEDURE
CHAPTER 28-5
DECISIONS DETERMINING SUBSTANTIAL INTERESTS

28-5.15 Requests for Formal and Informal Proceedings

(1) Requests for proceedings shall be made by petition to the agency involved. Each petition shall be printed typewritten or otherwise duplicated in legible form on white paper of standard legal size. Unless printed, the impression shall be on one side of the paper only and lines shall be double spaced and indented.

(2) All petitions filed under these rules should contain:

(a) The name and address of each agency affected and each agency's file or identification number, if known;

(b) The name and address of the petitioner or petitioners;

(c) All disputed issues of material fact. If there are none, the petition must so indicate;

(d) A concise statement of the ultimate facts alleged, and the rules, regulations and constitutional provisions which entitle the petitioner to relief;

(e) A statement summarizing any informal action taken to resolve the issues, and the results of that action;

(f) A demand for the relief to which the petitioner deems himself entitled; and

(g) Such other information which the petitioner contends is material.

the applicant of the Department's notification, pursuant to Section 403.0876, F.S., that additional information is required.
Specific Authority: 120.53, 403.0876, 403.815, F.S. Law Implemented: 120.53, F.S.
History: New 9-20-79, Amended 4-28-81, Transferred from 17-1.62 and Amended 6-1-84.

17-103.160 Uniformity in Approval and Denial of Applications for Department Permits and Certifications. To the extent possible and consistent with the public interest, the Department approves and denies applications for permits and certifications on a uniform and consistent basis. Final Department actions on applications for permits and certifications shall be consistent with prior Department actions, unless deviation therefrom is explained by the Department in writing or the hearing officer who submits a recommended order to the Department for final agency action in accordance with Section 120.57, Florida Statutes.
Specific Authority: 120.53(1), F.S. Law Implemented: 120.53(1), 120.68(12), F.S. History: New 2-6-78, Transferred from 17-1.63, 6-1-84.

17-103.170 Designation, Preparation and Transmittal of Record for Administrative Appeals.

When any Department action or order is the subject of an administrative appeal under Chapter 17-103, Part II, FAC, the following requirements shall apply:

(1) Designation of Record. Within fifteen (15) days of rendition of the Department's final order, the appellant shall designate to the Department, in writing, with copies to other parties, those documents or things under the control of or in the possession of the Department which the appellant desires to have included in the record, and which were received or considered in the Department proceeding below. If a proceeding was reported by mechanical recording devices, the appellant shall designate those portions of the proceeding for which it requires written transcription or tapes for transcription. Any other party may designate other portions of the record in the manner provided herein. Such cross-designation shall be filed with the Department, with copies provided other parties, within seven (7) days after receipt of the designation by the appellant.

(2) Original Record. The Department shall thereupon include in the record all of the designated portions of the original papers and exhibits in the proceedings or matter from which administrative appeal is taken, together with a copy of any such parts of the proceedings as were stenographically reported or transcribed from tapes, and as have been designated by the parties and certified by a notary public, the reporter, or other officer for inclusion in the record on appeal or review, and certified copies of the order, if any, of which review is sought. The Department may, at its discretion, substitute certified copies for original papers or documents in its possession.

(3) Preparation of Record. Upon tender or deposit by appellant of the estimated cost of preparation, the Department shall prepare the record in accordance with the designations of the parties. The cost of preparation, and reproduction,

agency action whenever there is no public notice of proposed agency action. In addition to the requirements of Rule 28-5.201, FAC, the Petition must specify the county in which the project is or will be located.

(b) Failure to file a petition within fourteen (14) days of receipt of notice of agency action or fourteen (14) days of receipt of notice of proposed agency action, whichever notice first occurs, shall constitute a waiver of any right to request an administrative proceeding under Chapter 120, F.S.

(c) When there has been no publication of notice of agency action or notice of proposed agency action as prescribed in Rule 17-103.150, FAC, a person who has actual knowledge of the agency action or has knowledge which would lead a reasonable person to conclude that the Department has taken final agency action, has a duty to make further inquiry within fourteen (14) days of obtaining such knowledge by contacting the Department to ascertain whether action has occurred. The Department shall upon receipt of such an inquiry, if agency action has occurred, promptly provide the person with notice as prescribed by Rule 17-103.150, FAC. Failure of the person to make inquiry with the Department within fourteen (14) days after obtaining such knowledge may estop the person from obtaining an administrative proceeding on the agency action.

(2)(a) "Receipt of notice of agency action" means receipt of written notice of final agency action, as prescribed by Department rule, or the publication, pursuant to Department rule, of notice of final agency action, whichever first occurs.

(b) "Receipt of notice of proposed agency action" means receipt of written notice (such as a letter of intent) that the Department proposes to take certain action, or the publication pursuant to Department rule of notice of proposed agency action, whichever first occurs.

(3) Notwithstanding any other provision in this Chapter, should a substantially affected person who fails to timely request a hearing under Section 120.57, F.S., administratively appeal the final Department action or order, the record on appeal should be limited to:

(a) the application, and accompanying documentation submitted by the applicant prior to the issuance of the agency's intent to issue or deny the requested permit.

(b) the materials and information relied upon by the agency in determining the final agency action or order;

(c) any notices issued or published; and

(d) the final agency action or order entered concerning the permit application.

(4) In such cases where persons do not timely exercise their rights accorded by Section 120.57(1), Florida Statutes, the allegations of fact contained in or incorporated by the final agency action shall be deemed uncontested and true, and appellants may not dispute the truth of such allegations upon subsequent appeal.

(5) Any applicant may challenge the Department's request for additional information by filing with the Office of General Counsel an appropriate petition for administrative proceeding pursuant to Section 120.60, F.S., following receipt by

of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32301. Failure to petition to intervene within the allowed time frame constitutes a waiver of any right such person has to an administrative determination (hearing) under Section 120.57, F.S.

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(4) Notice to substantially affected persons concerning applications for Department permits is an essential and integral part of the state environmental licensing process. Therefore, no application for a permit for which publication of notice is required shall be granted until and unless proof of publication of Notice is furnished to the appropriate Department permitting office.

(5)(a) Any applicant or person benefiting from the Department's action may elect to publish notice of proposed agency action in the manner provided by subsection (2) or (3). Any person who elects to publish notice of proposed agency action, upon presentation of proof of publication to the Department, prior to final agency action, shall be entitled to the same benefits under this rule as a person who is required to publish notice of proposed agency action. Since persons whose substantial interests are affected by a Department decision on a permit application may petition for an administrative proceeding within fourteen (14) days after receipt of notice and since, unless notice is given or published as prescribed in this rule, receipt of notice can occur at any time, the applicant or persons benefiting from the Department's action cannot justifiably rely on the finality of the Department's decision without the notice having been duly given or published.

(b) The notices required by this rule may be combined with other notices required by the Department pursuant to Chapter 403, 376, or 253, F.S., or Chapter 17, FAC.

(c) The provisions of this section shall also apply to the permitting of hazardous waste facilities, but only to the extent it is consistent with Chapter 17-30, Part IV, FAC. Whenever Chapter 17-30, Part IV, FAC, provides for a different time or notice procedure than that set forth in this section the time and notice provisions of Chapter 17-30 shall govern.

(6) Failure to publish any notice of application, notice of proposed agency action, or notice of agency action required by the Department shall be an independent basis for the denial of a permit.

Specific Authority: 120.53, 403.0876, 403.815, F.S. Law Implemented: 120.53, F.S. History: New 9-20-79, Amended 4-28-81, Transferred from 17-1.62 and Amended 6-1-84.

17-103.155 Petition for Administrative Hearing; Waiver of Right to Administrative Proceeding.

(1)(a) Any person whose substantial interests may be affected by proposed or final agency action may file a petition for administrative proceeding. A petition shall be in the form required by this Chapter and Chapter 28-5, FAC, and shall be filed (received) in the Office of General Counsel of the Department within fourteen (14) days of receipt of notice of proposed agency action or within fourteen (14) days of receipt of notice of

Technical Evalulation
and
Preliminary Determination

Florida Steel Corporation
Tampa, Florida
Hillsborough County

Permit Number:
AC 29-117627

Florida Department of Environmental Regulation
Bureau of Air Quality Management
Central Air Permitting

July 11, 1986

I. Applicant and Location

A. Applicant

Florida Steel Corporation
7105 6th Avenue
Tampa, Florida 33623

B. Project and Location

The applicant proposes to replace its existing dust handling procedures by constructing a dust reclamation system (DRS) to collect and recover/reclaim zinc, lead, and iron oxide emitted from two electric arc furnaces (EAF; Nos. 1 & 2). The DRS will consist of an EAF dust pelletizer, a dryer and a heater (both natural gas (NG) fired at 0.85 MBTU/hr & 1.0 MBTU/hr, respectively), two Reactors (Nos. 1 & 2; No. 2 has a NG fired heater at 1.0 MBTU/hr), a lead dust baghouse, a zinc dust baghouse, a briquetter, a heat exchanger, and a common header and stack with an associated blower. Effluent from the pelletizer, dryer, heater, Reactor 1, and the briquetter will be ducted to the "lead baghouse." Effluent from Reactor 2 will be ducted to the "zinc baghouse." Effluent from the lead and zinc baghouses and Reactor 2 will be ducted to the common header and then discharged into the atmosphere.

The two baghouse dust control systems will be manufactured by MikroPul Corporation to control particulate matter (PM) emissions. There will not be any fugitive PM emissions because of the system's design.

An existing unpermitted storage silo and associated baghouse control system will be dismantled and a portion of the storage silo will be relocated and used as a surge tank in the DRS. The surge tank system will be totally enclosed and will not vent to the atmosphere.

The proposed DRS will be constructed at the applicant's existing facility at the above address located in Hillsborough County, which is an area designed nonattainment for PM. The UTM coordinates are Zone 17, 364.63 km East and 3092.82 km North.

C. Process and Controls

The chemistry and material characteristics of electric furnace baghouse dust provide the physical parameters to allow the separation and reclamation of zinc, lead and iron oxide by the recycling process. The reclaimed zinc will be a commerical grade of elemental zinc suitable for direct use in the production of paint pigments, galvanizing materials and other products. The reclaimed lead will be a commercial grade of elemental lead suitable for direct use in the production of cable shieldings, batteries and other products. The residual materials, composed

primarily of iron oxides, are well suited for use as a charge material for the electric arc furnaces at the Tampa steel mill. All of the residual materials will be so used. None will require treatment or disposition by other means. A schematic of the proposed DRS can be found in the attachments.

The two proposed baghouse dust control systems, manufactured by MikroPul Corporation are the Mikro-Pulsaire 49S-10-20 and the Mikro-Pulsaire 25S-10-20. Each dust collector has a guaranteed collection efficiency such that the dust load of effluent leaving will not exceed 0.01 grains per standard cubic foot of air per minute.

Gases from the two baghouses and the Reactor 2 will discharge into a common header prior to discharging out of a single stack.

II. Rule Applicability

The proposed project is subject to preconstruction review under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code (FAC) Rules 17-2 and 17-4.

The application package was deemed complete on May 5, 1986.

The existing facility is located in Hillsborough County, which is an area designated nonattainment for the pollutants ozone (VOC) and particulate matter (PM) in accordance with FAC Rules 17-2.410(1)(f) and 17-2.410(2)(a)1., respectively. VOC (volatile organic compounds) are considered precursors to ozone. The existing facility is considered a major facility for PM and lead in accordance with FAC Rule 17-2.100(110).

The following table will reflect the potential pollutant emissions from the proposed DRS:

Table 1

Source	Potential Pollutant Emissions					
	Pb lb/yr	PM TPY	SO_2 TPY	NOx TPY	CO TPY	NMHC TPY
Baghouses (2) & Reactor 2	294	0.83				
Briquet Unit		0				
Reactor 2, Dryer & Heater		0.01	<0.01	1.13	0.23	0.06
Total:	294	0.84	<0.01	1.13	0.23	0.06

Note: o Based on 8400 hours of operation
o Natural gas maximum total usage by the reactor, heater and dryer is 2.7×10^6 cubic feet per hour
o Maximum process input rate of 800 lbs/hr from the EAF dust pelletizer

Since the proposed emissions are less than the significant rates pursuant to Table 500-2, FAC Rule 17-2, the pollutant emissions are not subject to preconstruction review pursuant to FAC Rules 17-2.500 and 17-2.510. Therefore, the pollutant emissions are subject to preconstruction review pursuant to FAC Rule 17-2.520, Sources Not Subject to Prevention of Significant Deterioration or Nonattainment Review. The proposed action will be a minor modification to a major facility.

The allowable pollutant emission limiting and performance standards shall be in accordance with FAC Rule 17-2.650(2)(c) 7.b.(ii), Electric Arc Furnaces, which was recommended by the applicant and acceptable to the department. Based on FAC Rule 17-2.650(2)(c)7.b.(ii), particulate matter emissions shall not exceed 0.01 grains per dry standard cubic foot (gr/dscf) or any visible emission (greater than 5 percent opacity).

According to FAC Rule 17-2.620(2), no person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An objectionable odor is defined as any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance according to FAC Rule 17-2.100(130). Therefore, objectionable odors shall not be allowed off plant property.

No person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly in accordance with FAC Rule 17-2.240, Circumvention.

The DRS is subject to the provisions of FAC Rule 17-2.250(1), (4), (5), and (6), Excess Emissions.

The DRS shall be subject to the provisions of FAC Rule 17-2.610(3), Unconfined Emissions of Particulate Matter.

Compliance tests shall be conducted in accordance with FAC Rule 17-2.700, Stationary Point Source Emissions Test Procedures. The common header stack shall be tested for PM using EPA Method 5, and for visible emissions using EPA Method 9 in accordance with Appendix A, 40 CFR 60. The compliance tests shall be conducted while the DRS is operating at 100% of its maximum process input rate. Future compliance testing shall be conducted while the unit is operating at 90-100% of the maximum input rate.

An annual operating report shall be submitted by March 1 of each calendar year to the Hillsborough County Environmental Protection Commission to reflect the annual amount of materials processed and the annual pollutant emissions (calculations and assumptions are to be included).

III. Summary of Emissions and Air Quality Analysis

A. Emission Limitations

The regulated pollutant emissions from the facility are PM emissions and visible emissions. The following table will reflect the maximum allowable pollutant emissions from the proposed DRS:

Table 2

Source	Pollutant	Maximum Allowable Emissions
Common Header Stack	PM	0.01 gr/dscf (total: 0.20 lb/hr; 140 lbs/mth; 0.84 TPY)
	VE	exhibit no visible emissions (not greater than 5% opacity)

Note: o Based on 700 hrs/mth and 8400 hrs/yr
o Maximum process input rate of 800 lbs/hr from the EAF dust pelletizer

The permitted emissions are in compliance with all applicable requirements of FAC Rules 17-2 and 17-4.

IV. Conclusion

The proposed modification should not cause any violation of Florida's ambient air quality standards. However, if any problems do occur with the operation of the proposed dust reclamation system, corrective action shall be negotiated between the applicant and the DER's Southwest District and the Hillsborough County Environmental Protection Commission.

For PSD tracking, the projected increase in lead (294 lb/yr) is 24.5% of the net significant increase pursuant to Table 500-2, FAC Rule 17-2.

The General and Specific Conditions listed in the proposed permit (attached) will assure compliance with all applicable requirements of FAC Rules 17-2 and 17-4.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

PERMITTEE:
Florida Steel Corporation
7105 6th Avenue
Tampa, Florida 33623

Permit Number: AC 29-117627
Expiration Date: March 31, 1987
County: Hillsborough
Latitude/Longitude: 27° 57' 18" N/
82° 22' 34" W
Project: Dust Reclamation System

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rules 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 drawings, plans, and other documents attached hereto or on file with the department and made a part hereof and specifically described as follows:

For the construction of a dust reclamation system (DRS) to collect and recover/reclaim zinc, lead, and iron oxide emitted from two electric arc furnaces (EAF; Nos. 1 & 2). The DRS will consist of an EAF dust pelletizer, a dryer and a heater (both natural gas (NG) fired at 0.85 MBTU/hr & 1.0 MBTU/hr, respectively), two Reactors (Nos. 1 & 2; No. 2 has a NG fired heater at 1.0 MBTU/hr), a lead dust baghouse, a zinc dust baghouse, a briquetter, a heat exchanger, and a common header and stack with an associated blower. Effluent from the pelletizer, dryer, heater, Reactor 1, and the briquetter will be ducted to the "lead baghouse." Effluent from Reactor 2 will be ducted to the "zinc baghouse." Effluent from the lead and zinc baghouses and Reactor 2 will be ducted to the common header and then discharged into the atmosphere.

The two baghouse control systems will be installed to control particulate matter emissions (a MIKRO-PULSAIRE Model 49S-10-20 dust collector and a MIKRO-PULSAIRE Model 25S-10-20 dust collector). Each dust collector has a guaranteed collection efficiency such that the dust load of effluent leaving will not exceed 0.01 grains per standard cubic foot of air per minute. The exit gases from the lead and zinc baghouses and the Reactor 2 enter a common header and discharge through a single stack.

An existing unpermitted storage silo and associated baghouse system will be disassembled. A portion of the storage silo will be relocated and used as a surge tank in the new dust reclamation system. The surge tank will not have any vent to the atmosphere. The UTM coordinates are Zone 17, 364.63 km East and 3092.82 km North.

The Source Classification Codes are: Secondary Metal Production - Steel Foundry - Dust Reclamation: 3-04-007-99.

The sources shall be as reflected in the permit application, plans, documents, drawings, and amendments, except as otherwise noted on pages 5-8 of the Specific Conditions.

Attachment Page

Attachments:

1. Application to Construct Air Pollution Sources, DER Form 17-1.202, and Mr. Earl Hendry's cover letter dated and received April 4, 1986.
2. Mr. C. H. Fancy's letter dated May 2, 1986.
3. Mr. E. J. Oliver's letters (2) dated April 28, 1986, and received May 2, 1986.
4. Dr. Robert S. Sholtes' letter with enclosures dated and received May 5, 1986.
5. Dr. Robert S. Sholtes' letter with enclosure dated May 5, 1986, and received May 7, 1986.
6. Mr. Robert W. McVety's letter dated June 2, 1986.

PERMITTEE:
Florida Steel Corporation

Permit Number: AC 29-117627
Expiration Date: March 31, 1987

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statues. The permittee is hereby placed on notice that the department will review this permit periodically and may initiate enforceable action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

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 Statues, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor 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 does not constitute 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, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, 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 at all times properly operate and maintain the facility and system 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 the department rules. This provision includes the operation of backup or auxiliary facilites 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, access to the premises, at reasonable times, where the permitted acitvity is located or conducted for the purpose of:

a. Having access to and copying any records that must be kept under the conditions of the permit;

b. Inspecting the facility, equipment, pracitices, or operations regulated or required under this permit; and

c. Sampling or monitoring 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 notify and provide the department with the following information:

a. a description of and cause of non-compliance; and

b. the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

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 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 construciton or operation of this permitted source, which are submitted to the department, may be used by the department as evidence in any enforcement case arising under the Florida Statutes or department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statues.

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

11. This permit is transferable only upon department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, 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 is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

( ) Determination of Best Available Control Technology (BACT)
( ) Determination of Prevention of Significant Deterioration (PSD)
( ) Compliance with New Source Performance Standards.

14. The Permittee shall comply with the following monitoring and record keeping requirements:

a. Upon request, the permittee shall furnish all records and plans required under department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the department, during the course of any unresolved enforcement action.

GENERAL CONDITIONS

b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibrat on and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to cmplete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

15. When requested by the department, the permittee shall within a reasonable time furnish any information required by law which is needed to detemine 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 submitted or corrected promptly.

SPECIFIC CONDITIONS:

1. Hours of operation shall not exceed 700 hours per month and 8400 hours per year.

2. The projected maximum total process input rate is 800 pounds of dust per hour from the electric arc furnaces (Nos. 1 & 2).

3. From the common header stack, which includes the exit gases from the lead and zinc baghouses and Reactor 2, the maximum allowable particulate matter emission rate shall not exceed 0.01 gr/dscf (0.20 lb/hr, 140 lbs/mth, 1680 lbs/yr) based on a measured flow rate of 2300 dscfm (3298 acfm @ 300°F).

SPECIFIC CONDITIONS:

4. Compliance tests for particulate matter shall be conducted using EPA Method 5 in accordance with FAC Rule 17-2.700 and Appendix A, 40 CFR 60.

5. From the common header stack, there shall be no visible emissions (not greater than 5% opacity). Compliance tests shall be conducted using EPA Method 9 in accordance with FAC Rule 17-2.700 and Appendix A, 40 CFR 60.

6. Compliance tests shall be conducted at 100% of the maximum process input rate. Future compliance tests can be conducted at 90-100% of the maximum process input rate.

7. The Hillsborough County Environmental Protection Commission shall be notified in writing 15 days prior to compliance testing.

8. Objectionable odors shall not be allowed off plant property in accordance with FAC Rule 17-2.620(2).

9. The units are subject to the provisions of FAC Rule 17-2.250(1),(4),(5), and (6), Excess Emissions. When a report of excess emissions is required, the Hillsborough County Environmental Protection Commission shall be notified.

10. According to FAC Rule 17-2.240, Circumvention, no person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly.

11. In accordance with FAC Rule 17-2.610(3), no person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any source whatsoever, including, but not limited to, 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 emissions. Reasonable precautions to be taken may include, but not be limited to the following:

1. Paving and maintenance of roads, parking areas and yards.
2. Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.

PERMITTEE:
Florida Steel Incorporation

Permit Number: AC 29-117627
Expiration Date: March 31, 1987

SPECIFIC CONDITIONS:

3. Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar sources.
4. Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the source to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.
5. Landscaping or planting or vegetation.
6. Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
7. Confining wet abrasive blasting where possible.
8. Enclosure or covering of conveyor systems.

12. Submit an annual operating report by March 1 of each calendar year to the Hillsborough County Environmental Protection Commission containing the annual amount of materials processed and the annual pollutant emissions (calculations and assumptions are to be included).

13. The construction shall reasonably conform to the plans and schedule submitted in the application. If the permittee is unable to complete construction on schedule, he must notify the department in writing 60 days prior to the expiration of the construction permit and submit a new schedule and request for an extension of the construction permit. (FAC Rule 17-4.09)

To obtain a permit to operate, the permittee must demonstrate compliance with the conditions of the construction permit and submit a complete application for an operating permit, including the application fee, along with test results and Certificate of Completion, to the department's Southwest District office 90 days prior to the expiration date of the construction permit. The permittee may continue to operate in compliance with all terms of the construction permit until its expiration date. Operation beyond the construction permit expiration date requires a valid permit to operate. (FAC Rules 17-4.22 and 17-4.23)

If the construction permit expires prior to the permittee requesting an extension or obtaining a permit to operate, then all activities at the project must cease and the permittee must apply for a new permit to construct which can take up to 90 days to process a complete application. (FAC Rule 17-4.10)

PERMITTEE:
Florida Steel Corporation

Permit Number: AC 29-117627
Expiration Date: March 31, 1987

SPECIFIC CONDITIONS:

Issued this_____day of _____
19___.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

_____
Victoria J. Tschinkel, Secretary

_____pages attached.

ATTACHMENT 1

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 33623

April 4, 1986

Dr. Richard D. Garrity
District Manager
Department of Environmental
Regulation
7601 Highway 301 North
Tampa, Florida 33610

RE: Proposed Emission Control Dust Recycling Facility -- Florida Steel Corporation Tampa Mill

Dear Dr. Garrity,

The purpose of this letter is to seek:

-- approval of the enclosed application to construct air pollution sources, and

-- confirmation that the enclosed Notification under Section 3010 of RCRA is sufficient and that neither a RCRA permit nor a hazardous waste management permit is required with respect to the proposed emission control dust recycling facility described below.

Florida Steel Corporation's Tampa Mill is a generator of K061 emission control dust from its electric arc furnaces. Since the effective date of the RCRA regulations in November 1980, the emission control dust from our Tampa Mill has been manifested and shipped out of state for ultimate disposition in accordance with RCRA requirements.

As you know, Congress has directed EPA to reduce substantially the use of land disposal in the disposition of hazardous wastes. In keeping with Congress' wishes, Florida Steel is pleased to present for your consideration its proposal to construct and operate an emission control unit recycling facility at its Tampa Mill.

Notification Under Section 3010 of RCRA --

Enclosed is Form 8700-12 which we have completed pursuant to the requirements of Section 3010 of RCRA.

The reason for this Notification is to inform you of our plans to construct and operate a small recycling facility subject to the requirements of 40 CFR 261.6(c)(2) and the exemption provided by 40 CFR 261.3(c)(2).

The recyclable material to be recycled is K061 emission control dust from the electric arc furnaces.

The recyclable material will not be stored prior to recycling. It will, instead, be conveyed directly from the baghouses in which it is generated to the infeed hopper of the recycling facility by a totally enclosed conveyance system.

We understand a permit would be required for this facility under 40 CFR 261.6(c)(1) if the recyclable material were stored, but that under 40 CFR 261.6(c)(2) a permit is not required where the recycling is performed, as here, without storing the recyclable material. We note that page 643 of the preamble to these regulations published in the January 4, 1985, Federal Register, explains:

> We usually do not regulate the recycling process itself, except when the recycling is analogous to land disposal or incineration.

The objective of this process is to recover valuable metals -- not destroy them by incineration. Nothing analogous to land disposal is involved.

The recycling facility is designed to:

-- reclaim elemental lead in a commercial grade suitable for direct use in the production of cable shieldings, batteries and other products, and

-- reclaim elemental zinc in a commercial grade suitable for direct use in the production of paint pigments, galvanizing materials and other products,

so that these reclaimed products will be subject to the exemption provided in 40 CFR 261.3(c)(2).. We note that page 634 of the preamble further explains:

> The agency proposed a clarifying amendment to §261.3(c)(2) . . . to indicate that commercial products reclaimed from hazardous wastes are products, not wastes, and so are not subject to the RCRA Subtitle C regulations . . . This amendment states a fairly evident principle and was not challenged by any commentor.

The residual materials, composed primarily of iron oxides, are well suited for use as a charge material for the electric arc furnaces, and will be so used.

Application to Construct Air Pollution Sources --

Enclosed is our application to construct the air pollution sources which are integral to the proposed recycling facility.

Additional Proprietary and Confidential Information --

The process by which the above will be accomplished is the proprietary and strictly confidential property of Bricmont & Associates which developed the process and designed the facility. In order to protect the confidentiality of the process and design while at the same time providing sufficient information to the Department for decision-making purposes, Bricmont & Associates have provided us with a confidential description of the process for the Department's review, but have asked that we not place a copy in the Department's files. It will, instead, be made available for the Department's review during meetings held to discuss the proposed recycling facility with us. After this confidential information has been reviewed in this manner, the Department will be in better position to advise us whether any additional information is believed to be essential and, if so, how best to preserve its absolute confidentiality.

We hereby request a meeting with the Department as soon as possible so that this confidential proprietary information can be made available in the above manner. Following that meeting, we would welcome the opportunity to meet with the Department's air staff and hazardous waste staff in Tallahassee.

We are anxious to begin construction as soon as possible. We would therefore appreciate expeditious handling of this matter.

Very truly yours,

Earl Hendry

Earl Hendry

EH/ckl

Enclosure

cc: Environmental Protective Commission
Hillsborough County

Robert McVety

AC 29-117627

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

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

pd 4/8/86 #385 PAID (16) H.C.E.P.C.

BOB GRAHAM
GOVERNOR
VICTORIA J. TSCHINKEL
SECRETARY
ALEX SENKEVICH
DISTRICT MANAGER

RECEIVED
APR 4 1986
H.C.E.P.C.

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

SOURCE TYPE: Dust Reclamation System [xx] New[1] [ ] Existing[1]

APPLICATION TYPE: [xx] Construction [ ] 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) Dust Reclamation System

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, Plant Manager

APPLICANT ADDRESS: Florida Steel Corporation, Tampa Mill Division, P.O.Box 23328, Tampa, FL 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 Construction permit are true, correct and complete to the best of my knowledge and belief. Further I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provision of Chapter 403, Florida Statutes, and all the rules and regulations of the department and revisions thereof. I also understand that a permit, if granted by the department, will be non-transferable and I will promptly notify the department upon sale or legal transfer of the permitted establishment.

*Attach letter of authorization

Signed: Earl Hendry

Earl Hendry, Plant Manager
Name and Title (Please Type)

Date: 4-4-86 Telephone No. (813) 621-3511

Virginia F. Reitz
Notary Public, State of Florida at Large
My Commission Expires May 15, 1988

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

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

CERTIFICATE

I hereby certify that

Earl Hendrey

is a duly elected Assistant Vice President of Florida Steel Corporation serving until January 23, 1987, that the foregoing is his true and correct signature; that by action of the Board of Directors of Florida Steel Corporation said Assistant Vice President is authorized and empowered to make, execute and deliver contracts, orders, engagements and documents on behalf of and as the act and deed of Florida Steel Corporation.

In Witness Whereof, I have hereunto set my hand as Secretary and affixed the seal of Florida Steel Corporation, this 2nd day of April, 1986, at Tampa, Florida.

(Seal)
Secretary
Florida Steel Corporation

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

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

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

Florida Registration No. 7601 Date: 4-3-86 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 Sheets

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

Start of Construction April 15, 1986 Completion of Construction December 30, 1986

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.)

Ductwork	$ 3,925
Baghouses	14,700
Blower	3,079
Installation	5,000

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

The existing dust handling system never permitted by separate document.
The baghouses which the system serves have been permitted for many years.

1.0 INTRODUCTION

Florida Steel Corporation, Tampa Mill, holds four permits applicable to baghouse collection systems used to control emissions from their two electric arc furnaces. For some length of time, the dust collected by these four baghouses has been routed to a storage silo and subsequently the dust packaged and shipped to a hazardous waste disposal facility. In view of the complexities of handling and shipping these wastes and the uncertainty of the availability of proper disposal sites in the future, Florida Steel Corporation is planning to construct a dust reclamation system which will eliminate the aforementioned procedures and associated equipment. No toxic or hazardous materials will be deposited upon the ground.

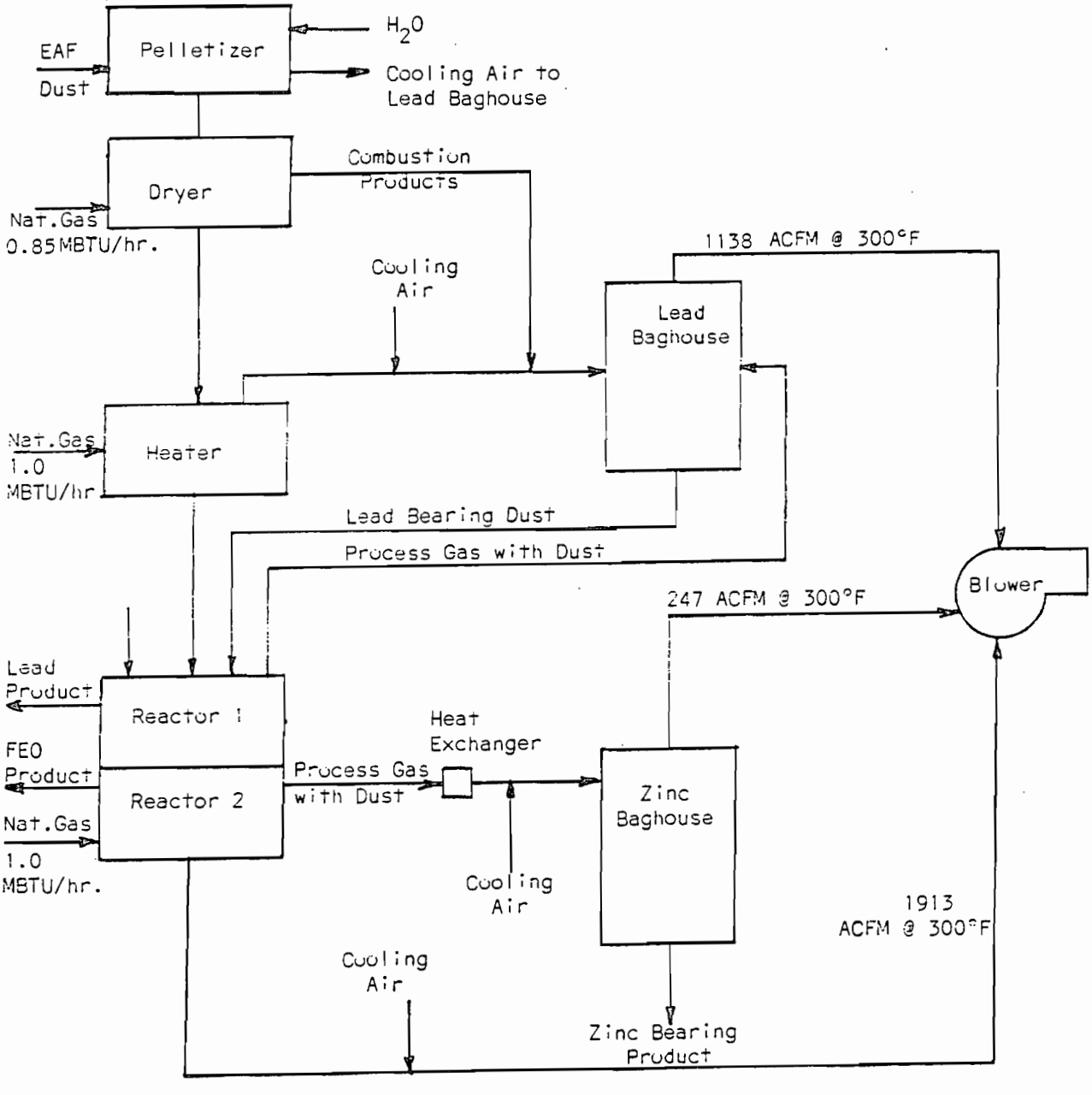
In the new system, all dust will be routed to the reclamation process where commercial grade zinc and lead product will be recovered for sale. The remaining material (FeO Product) will be recharged into the on-site electric arc furnaces. The commercial grade zinc product and lead product will be sold for beneficial use under 40 CFR 261.3(c)(2).

The proposed system will have one air emission point which serves the zinc and lead baghouses as reflected on the flow sheet accompanying this application. No fugitive emissions are contemplated due to the entirely closed loop construction.

A flow diagram of this proposed system is attached (a document abstracted from a similar but confidential flow diagram prepared by the vendor, Bricmont & Associates. The input "EAF Pellets" are prepared in an enclosed small rotating drum pelletizer wherein the incoming dust is subjected to a water spray. The small amount of water causes the dust to form pellets as the entire mass progresses through the device. The drum area is to be served with a suction line to exhaust whatever dust laden air may exist and pass the same through what is called the lead baghouse. This flow stream makes up part of the cooling air entering that portion of the system. The referenced confidential diagram is submitted as part of this application along with other confidential data in accordance with Chapter 403.111, Florida Statutes.

EAF DUST RECLAMATION
FLOW DIAGRAM

FLORIDA STEEL CORPORATION
TAMPA MILL DIVISION



SHOLTES & KOOGLER

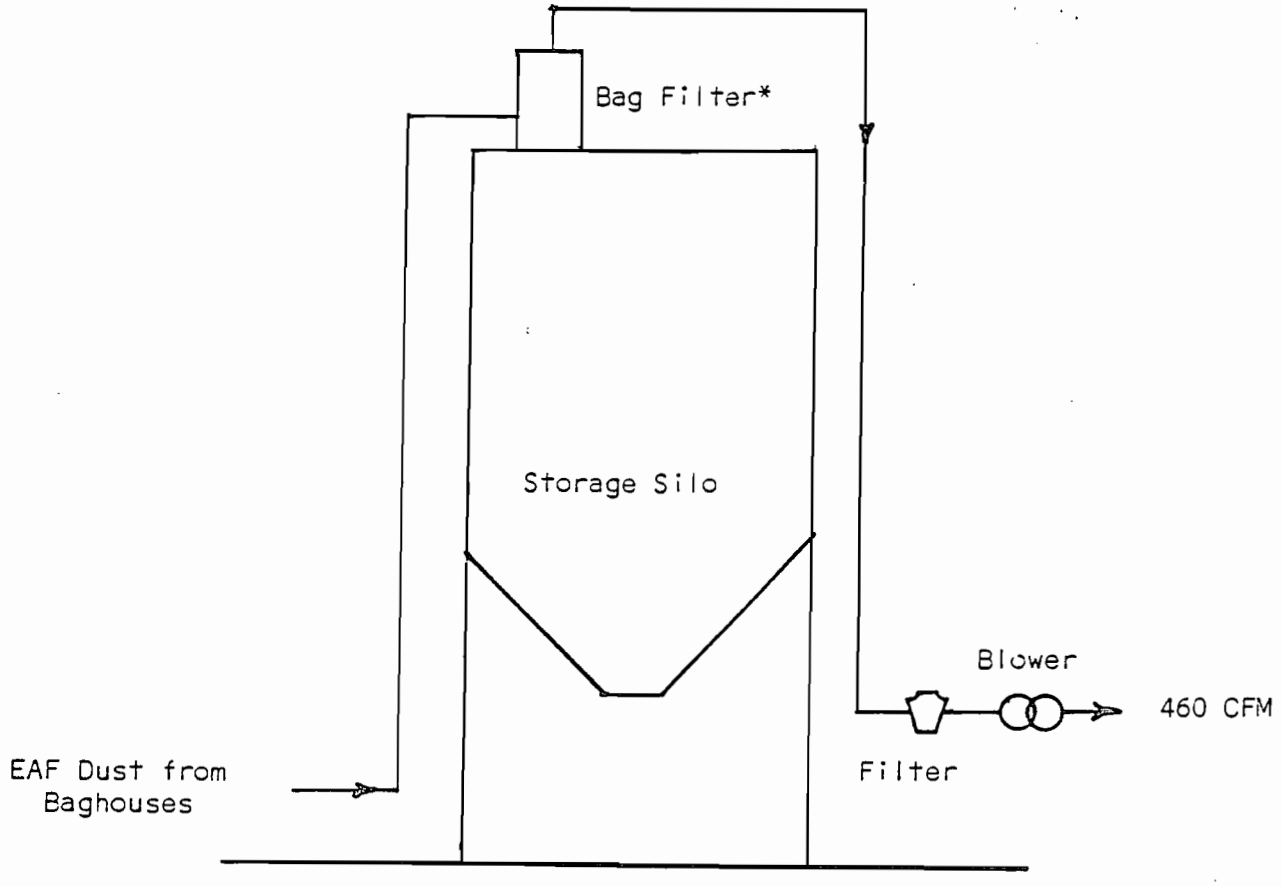
2.0 EXISTING DUST HANDLING SYSTEM

The existing system for handling the electric arc furnace dust consists of a screw conveyor system and storage silo which is used as a temporary storage pending the packaging and shipment of dust to the hazardous waste disposal site. The dust is transferred from the four baghouse collectors through screw conveyor systems and subsequently elevated into the storage silo by a pneumatic conveyance system. This particular system utilizes a suction pump which creates a vacuum of about 8.5 inches of mercury in the storage silo resulting in a carrier air stream of 460 CFM which moves the dust into the silo from a point near ground level. The carrier air is treated by a series of two filters prior to discharge into the atmosphere. One of these is a pulse jet baghouse filter located in the upper section of the storage silo and the second is a paper cartridge type filter at groundlevel near the "Roots" blower which serves as the system air mover. This flow system has not been subjected to testing. Using an assumed discharge grain loading of 0.01* grains per standard cubic foot and a flow of 460 SCFM, the estimated emission rate from this existing system is 0.04 pounds per hour and approximately 0.16 tons per year. This dust handling system is not presently permitted under the Florida Department of Environmental Regulation permit system.

A simple flow diagram of this existing system is attached hereto.

---

* This figure is taken from the appropriate RACT rule and is considered to be conservative in view of test results on baghouse filters and the fact that this system has a double filtration system.



* 152 Square Feet Dacron Bags (data appended hereto).
** Paper element filter (data appended hereto).

EXISTING EAF DUST HANDLING SYSTEM

FLORIDA STEEL CORPORATION
TAMPA MILL DIVISION

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. Particulates

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? YES

   a. If yes, for what pollutants? Particulates

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

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

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

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

Description	Contaminants		Utilization Rate - lbs/hr	Relate to Flow Diagram
	Type	% Wt		
Not Applicable				

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

1. Total Process Input Rate (lbs/hr): 800 pounds per hour

2. Product Weight (lbs/hr): 781 pounds per hour

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/~~hr~~ hr	T/yr	
Part. Matter	0.20	0.83	0.01 gr/dscf Per 17-2.650	0.20	217	911	Blower

[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)
Mikropul Model 495-10	Particulates	99.95		Manufacturer
Mikropul Model 255-10	Particulates	99.95		Manufacturer

E. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg/hr	max./hr	
Natural Gas	2.7	2.7	2,850,000 BTU/hr

*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: 18 ft. Stack Diameter: 1.81 x 1.55 ft.

Gas Flow Rate: 3298 ACFM 2300 DSCFM Gas Exit Temperature: 300 °F.

Water Vapor Content: <1 % Velocity: 19.6 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.

Under the RACT for electric arc furnaces, emission limit is 0.01 gr/dscf. This would seem an appropriate limit for this dust reclamation system.

Design effluent is 3298 ACFM at 300°F which equates to 2300 SCFM.

Using operating hours per this application, the emission rates are:

(2300 SCFM x 60 min/hr x 0.01 gr/dscf)/7000 gr/lb = 0.20 lb/hr.
= 0.83 tons/yr.

Proposed compliance methodology is EPA Methods 1 thru 5 and EPA Method 9.

BUTLER

BUTLER MANUFACTURING COMPANY · SALINA DIVISION

PRODUCT [illegible]
SECTION [illegible] SHT. NO. [illegible]
EFF. 7-8-74 SUPER. NEW

SYS. NO. 22461-1 SHT. NO. 1-6

ORDER CODE NO. 10-D 22461-1 WORKED BY RALPH SMITH SERIES

PURCHASER	CUSTOMER ORDER NO.	CODE [illegible]
THE CAMERON AND BARKLEY COMPANY	6-72239	[illegible]-21-74

SHIPPING INSTRUCTIONS

SHIP TO		VIA	REQ'D. DATE	SCHED. DATE
FLORIDA STEEL CORP. 1800 ORIENT ROAD TAMPA, FLORIDA 33622	MARK 8100-30816	YELLOW FRT.		8-30-74
		F.O.B. SALINA, KANSAS	PREPAID ☐ COLLECT ☐	

LIST OF SYSTEM EQUIPMENT

	QTY.	MFG. ORDER CODE	ITEM	FIELD ASSY INFORM. IDENT. MARK	DRAWING	APPLICATION SPECS. DIMENSION DRAWINGS MAINTENANCE INFORM. PARTS LIST AND DW.	PAGE NO.
0			SYSTEM NO. 1				
1	1	22461-1	BLOWER, VACUUM SERVICE 25 H.P. MOTOR, SCHWITZER BLOWER AND ACCESSORIES	B1-1	F1-22461-1	ADMP-22461-1	18?
2	1	2314-12	DISCHARGE MUFFLER KITTELL	B1-1	F1-22461-1	AD-2314-12	18?
3	1	5215-8	INLINE FILTER W/FILTER ELEMENT ☆ Existing Paper Filter.	S1-1	F1-5215-8	ADMP-52158	2[illegible]
4	1	22461-2A	3" O. D. X 5" O. D. ADAPTOR	S1-2	F1-22461-2	AD-22461-2A	4[illegible]
5	1	22461-2	☆ Existing Bag Filter FILTER RECEIVER WITH 14 BAG CORE UNIT AND RECEIVER HOUSING	S1-2	F1-22461-2	AD-22461-2	
6	14	2313-21	FILTER BAGS 5 3/4" I. D. X 86 1/2 LG. 16 OZ. DACRON FELT STYLE NO. 1954	S1-2	F1-22461-2		
7	14	2313-18	FILTER BAG CAGES FLEX KLEEN FOR 84" BAG SIZE	S1-2	F1-22461-2		
8	1	22461-2C	HOPPER RECEIVER 3" O. D. INLET X 10" I. D. DISCHARGE X 36" DIA.	S1-2	F1-22461-2	AD-22461-2C	
9	1	22461-2B	TRANSITION ADAPTOR	S1-2	F1-22461-2	AD-22461-2B	

Information on This Page Subject to Change Without Notice

BUTLER

SAUNA MANUFACTURING CO. • DIVISION OF BUTLER MANUFACTURING CO.

PRODUCT IN-LINE FILTERS
SECTION CO 04-05 SHT. NO.
EFF. 2-10-72 SUPER. 2-11-71

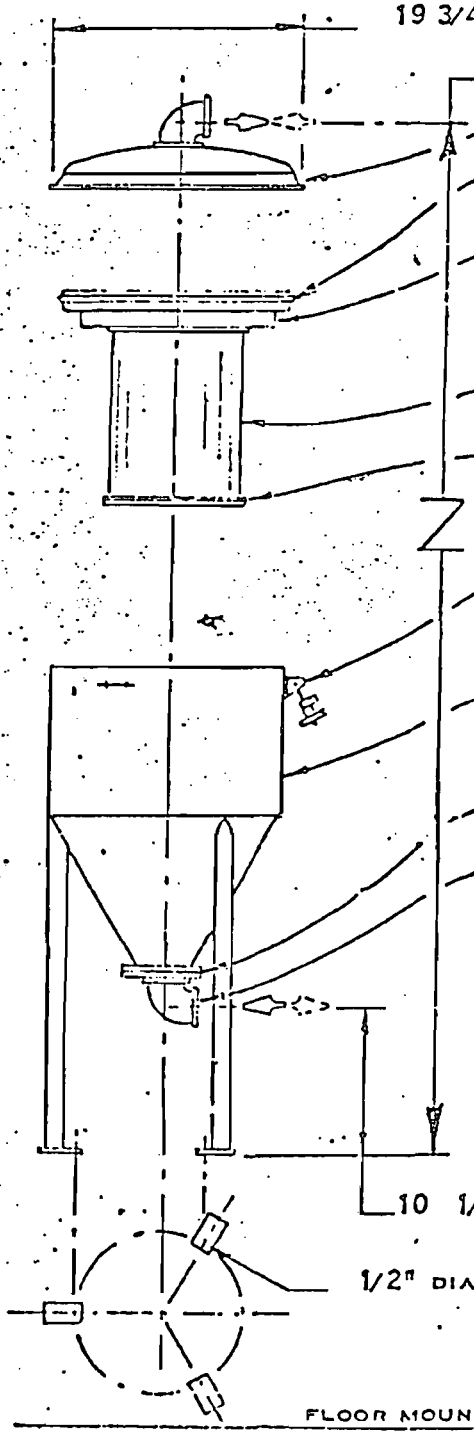
REFERENCE
ASSY. NO. D-22461-3

DWG. NO. ADMP-5219-0 SHT. NO.
MODEL

APPLICATION: SECONDARY FILTER PROTECTION FOR POSITIVE DISPLACEMENT BLOWERS ON VACUUM SERVI TO 15" HG, 420 CFM AIR. ALLOW .1 PSIG DESIGN PRESSURE LOSS. ALUMINUM CONSTRUCTION, 3" INLET/OUTLET.

MAINTENANCE: PERIODIC FILTER ELEMENT CHECK AND CLEANING. FLUSH FROM INSIDE OUT WITH CLEAN COMPRESSED AIR.

Existing Paper Filter



FLOOR MOUNT PATTERN

NOTES:
⇦ INDICATES AIR TO BLOWER
⇦ INDICATES FILTER CLEANING AIR
____ LBS., APPROXIMATE SHIPPING WEIGHT

BUTLER

BUTLER MANUFACTURING COMPANY · SALINA DIVISION

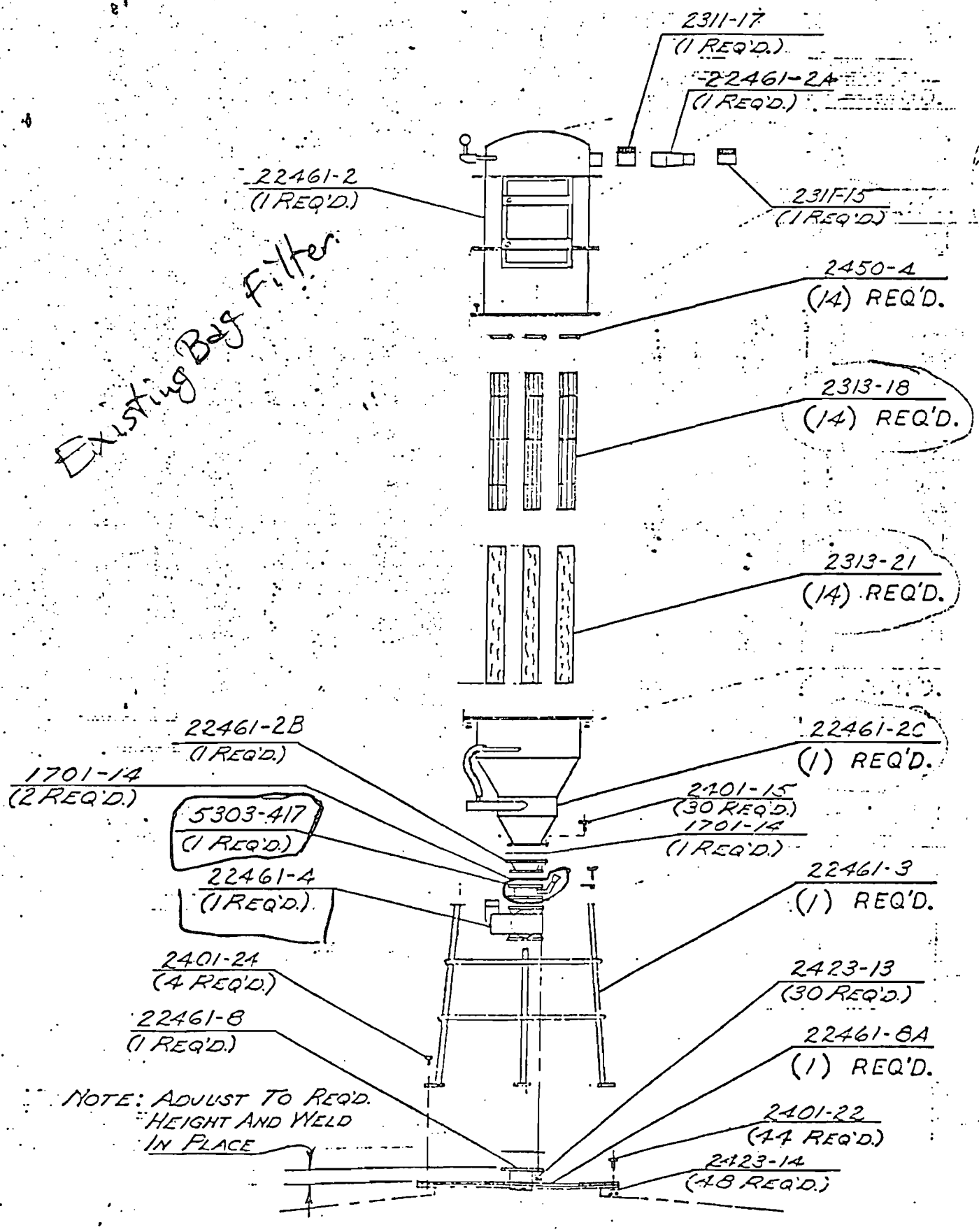
FIELD ASSEMBLY

PRODUCT C RECEIVER FILTERS

SECTION ED-04.07 SHT. NO.

EFF. SUPER. NEW

ASSY. NO. F1-22461-2 SHT. NO. 1-



SYSTEM DESIGN Existing Dust Handling System

1. SYSTEM NO. 1 VACUUM TRANSFER SYSTEM

2. PRODUCT TO BE HANDLED IN THIS SYSTEM IS IRON OXIDE POWDER
WEIGHING 48 LBS. PER CU. FT.

THIS PRODUCT ☒ (WAS) ☐ (WAS NOT) TESTED IN BUTLER'S LABORATORY TO DETERMINE THE FOLLOWING:

- ☒ CONVEYING CHARACTERISTICS
- ☒ POUNDS PER CU. FT.
- ☐ FLOWABILITY INTO AEROLOCKS
- ☒ FLOWABILITY FROM AEROLOCKS TO CONVEYING LINE
- ☐ ABRASIVENESS (ALTHOUGH THE MOST PRACTICAL COMPONENTS HAVE BEEN SELECTED AND PROVIDED, BUTLER DOES NOT WARRANT THESE COMPONENTS AGAINST ABRASION CAUSED BY THE PRODUCT).

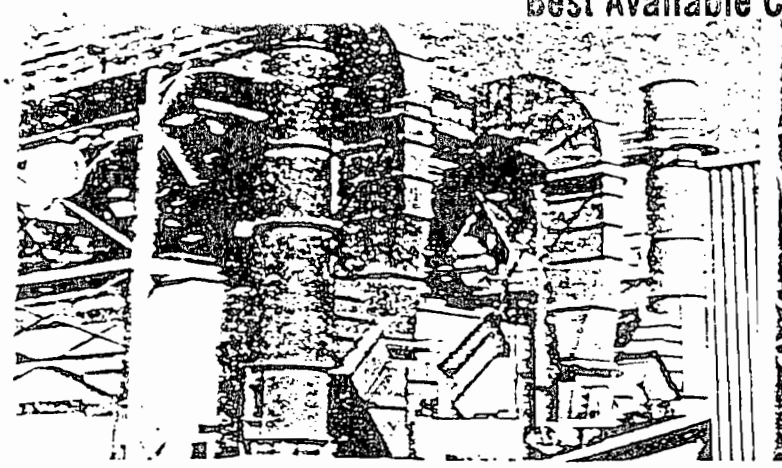
3. SYSTEM LAYOUT DESIGN:

HORIZONTAL DISTANCE 400 FEET, CONVEYING LINE
HORIZONTAL DISTANCE 0 FEET, HOSE
VERTICAL DISTANCE 80 FEET, CONVEYING LINE
VERTICAL DISTANCE 0 FEET, HOSE
15 90° LONG SWEEP ELBOWS, CONVEYING LINE
0 90° LONG SWEEP BENDS, HOSE.

4. DESIGN DATA:

4,000 LBS. PER HOUR, CONVEYING RATE.
VACUUM: 462 ACFM AT 8 1/2 " HG
PRESSURE: ——— SCFM AT ——— PSIG

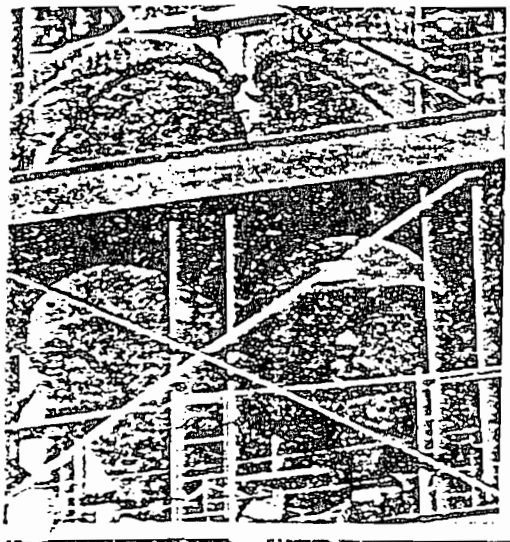
(THE ABOVE DATA WILL VARY IF THE PRODUCT CHARACTERISTICS, CONVEYING DISTANCE, NUMBER OF ELBOWS, ETC., CHANGES FROM THOSE DESIGNATED IN STEPS NO. 2 AND NO. 3.)



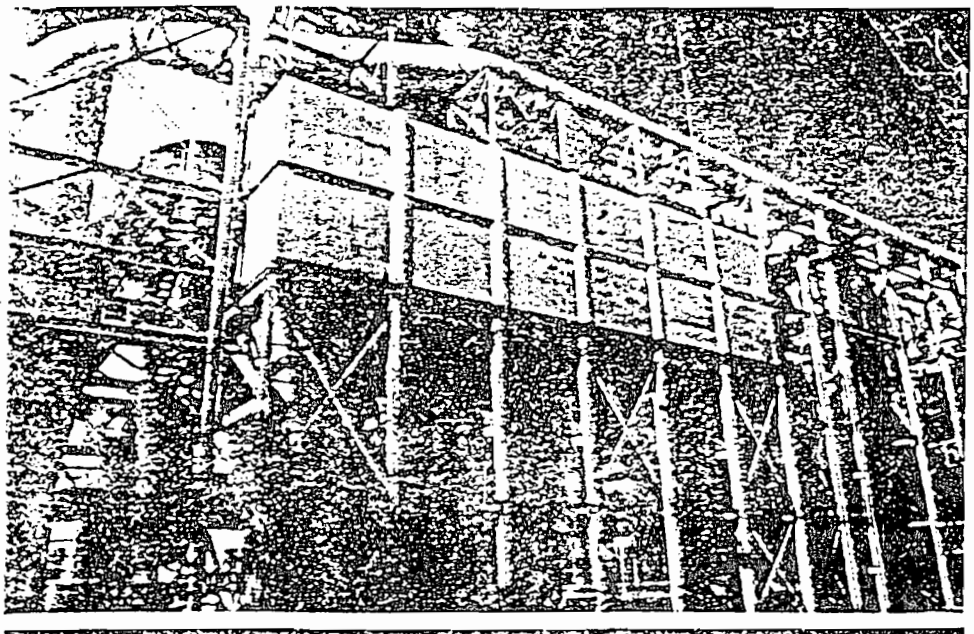
Represented by: (412) 935-1590

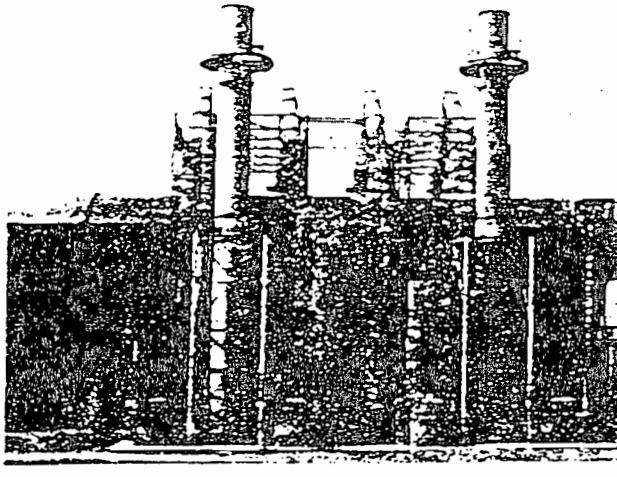
J.L. HORST INC.

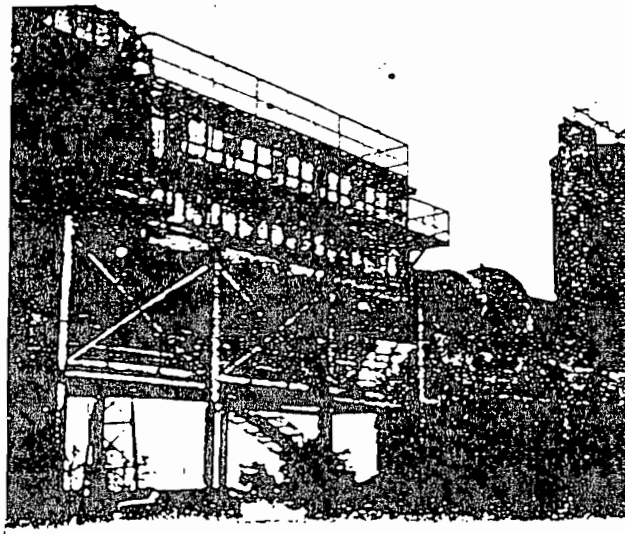
P.O. Box 408 • Wexford, PA 15090

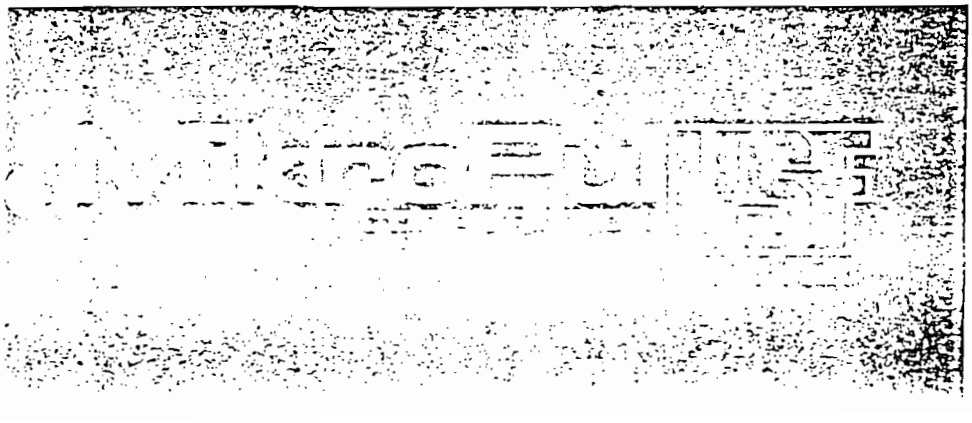


Mikro-Pulsaire Dust Collectors









Square Welded Mikro-Pulsaire

An efficient, low cost fabric filter collector to vent particle size reduction machinery, spray dryers, separators, calciners, mixers, packaging machines, conveyors, car-loaders and a range of process equipment and nuisance sources.

Features

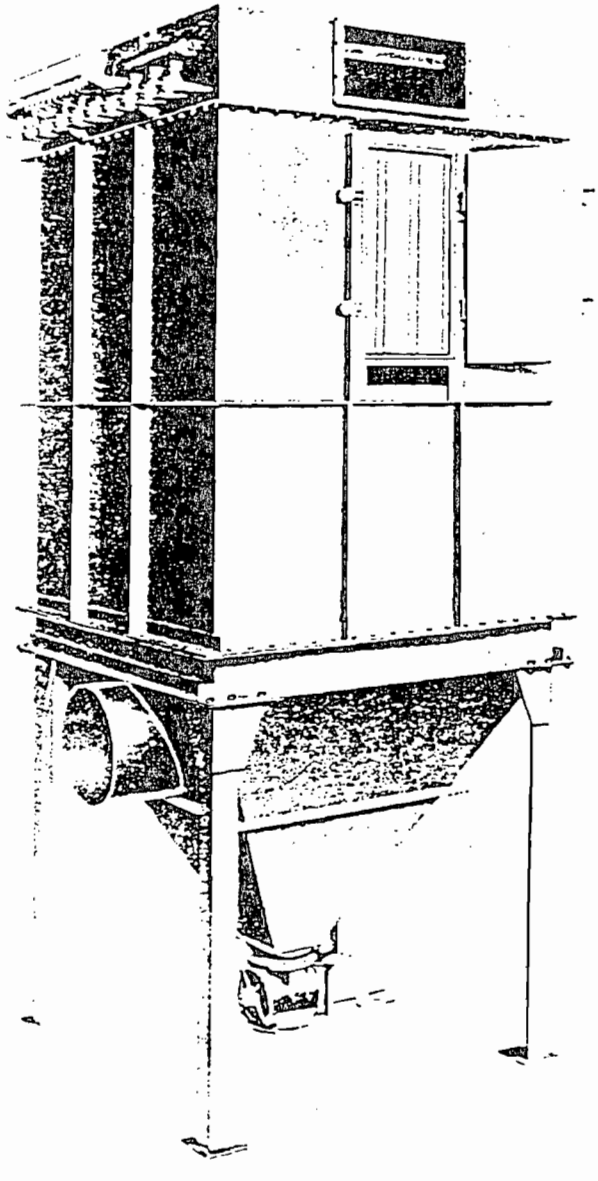
- Factory assembled for rapid field installation
- Contains up to 7,070 square feet of filter cloth; 16 to 500 six, eight, 10, or 12 foot bags
- Fabricated of 12 gauge carbon steel for temperatures up to 200°F.
- Operating pressures 20 in. to 30 in. w.g., depending on size
- Handles high dust loadings for 100– grains per cubic foot of gas, eliminating need for primary filters
- Header pipe assembly (consisting of header pipe, right angle valves, solenoid valve and solenoid valve enclosure) is shipped mounted, wired, and completely assembled on most sizes

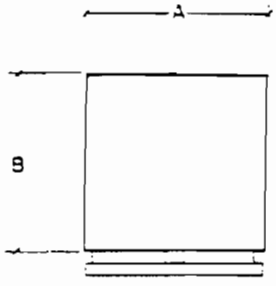
Delivered With

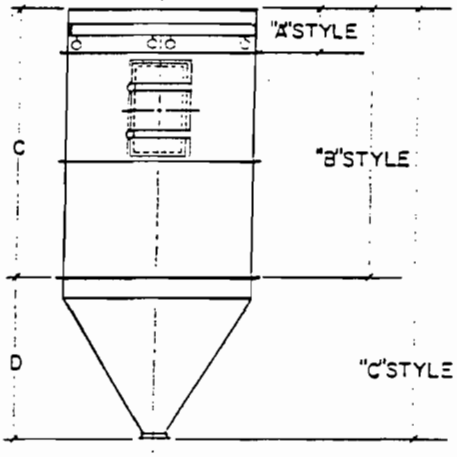
- Heavy die cast aluminum venturis
- 1/8" 10-wire carbon steel smooth wire retainers
- Stainless steel bag clamps, slotted with hex-head
- Model 72 solid state 10-position timer
- One or two hinged housing access doors, depending on size
- Primed carbon steel surfaces
- Solenoid valves and timer enclosures are NEMA 4

Options

- Explosion-proof electricals
- External catwalk
- Designed for use at 500°F.
- Explosion doors
- Inspection window
- Standlegs and bracing
- Ladder and cage
- Bag grid and/or man grid
- Weather hood over access door
- Pressure gauge on header
- Special interior coatings to your specification
- High quality Mikro bags in wide variety of materials and finishes
- Clean-on-Demand timer
- Epoxy coat, stainless steel 10-wire or 20-wire retainers
- All surfaces that may come in contact with dust or product can be fabricated of fiberglass or stainless steel
- All surfaces that may come in contact with gas can be fabricated of stainless steel







SQUARE SERIES

8FT AND 10FT FILTER ELEMENTS *

MODEL		NO. OF FILTER ELEMENTS	FILTER AREA FT²	APPROX WT LBS	DIM A INCHES	DIM B INCHES	DIM C INCHES	DIM D INCHES
16 S	8	16	161	1175	30	30	105	29
	10		188	1270	30	30	129	29
25 S	8	25	235	1395	36	36	105	34
	10		284	1660	36	36	129	34
36 S	8	36	339	1940	48	48	105	45
	10		424	2110	48	48	129	45
49 S	8	49	462	2565	54	54	111	50
	10		578	2665	54	54	135	50
64 S	8	64	603	2900	60	60	111	55
	10		754	3120	60	60	135	55
81 S	8	81	763	3450	66	66	111	60
	10		954	3820	66	66	135	60
100S	8	100	942	3750	72	72	111	65
	10		1178	4145	72	72	135	65
121 S	8	121	1130	4480	78	78	111	70
	10		1414	4910	78	78	135	70
144S	8	144	1356	5215	84	84	117	75
	10		1695	5720	84	84	141	75
156S	8	156	1470	7150	92	85	132	83
	10		1838	7600	92	85	156	83
168S	8	168	1583	7250	99	85	132	89
	10		1979	7750	99	85	156	89
180S	8	180	1697	7900	106	85	132	94
	10		2121	8350	106	85	156	94
196S	8	196	1647	7900	99	99	132	89
	10		2309	8450	99	99	156	89
221S	8	221	2083	8950	120	92	132	107
	10		2604	9550	120	92	156	107
238S	8	238	2243	9550	120	99	138	107
	10		2804	10150	120	99	162	107
289S	8	289	2724	10850	120	120	138	107
	10		3405	11500	120	120	162	107
320S	8	320	3015	12000	141	113	138	125
	10		3770	12700	141	113	162	125
340S	8	340	3203	12775	141	120	138	125
	10		4005	13525	141	120	162	125
360S	8	360	3393	13550	141	127	144	125
	10		4241	14350	141	127	162	125
380S	8	380	3579	14545	141	134	144	125
	10		4475	15250	141	134	162	125
400S	8	400	3768	15740	141	141	144	125
	10		4712	15945	141	141	162	125
420S	8	420	3945	17157	148	141	144	131
	10		4947	17600	148	141	162	131
440S	8	440	4139	18701	155	141	144	137
	10		5148	18944	155	141	162	137
460S	8	460	4324	20384	162	141	144	143
	10		5418	20650	162	141	162	143
480S	8	480	4512	22422	169	141	144	149
	10		5654	22715	169	141	162	149
500S	8	500	4700	24561	176	141	144	155
	10		5890	24760	176	141	162	155

* ALSO AVAILABLE IN 12 FT. LG. FILTER ELEMENTS

Top Access Mikro-Pulsaire

"S" Series from 151 to 7,070 sq. ft. filter area — 8, 10, 12 foot bags

- Factory assembled for rapid field installation
- Permits bags to be inspected, removed and replaced from clean air side
  Fast replacement reduces maintenance and downtime. One man can change a bag in about two minutes
  Leaking bags can be detected rapidly and easily
- Operators are not in contact with toxic or valuable products during maintenance operations
- Header pipe assembly (consisting of header pipe, right angle valves, solenoid valve and solenoid valve enclosure) is shipped mounted, wired, and completely assembled on most sizes

Features

Unique Cam-Action Lock Venturi that locks into and is removed from the tube sheet by a twist of the wrist. Positive seal of venturi with bag clamp assures proper installation; bags cannot be partially installed; bags and retainer cannot fall into the collector; and fingers are protected against injury. Modular models can consist of pre-fabricated panels or large welded sections.

- Sections can be bolted or welded in field.
- Compressed air headers are pre-assembled and pre-wired.
- Welded 12 gauge carbon steel construction.
- Operating temperatures to 200°F.
- Operating pressure to 20 in. w.g.

Standard Equipment

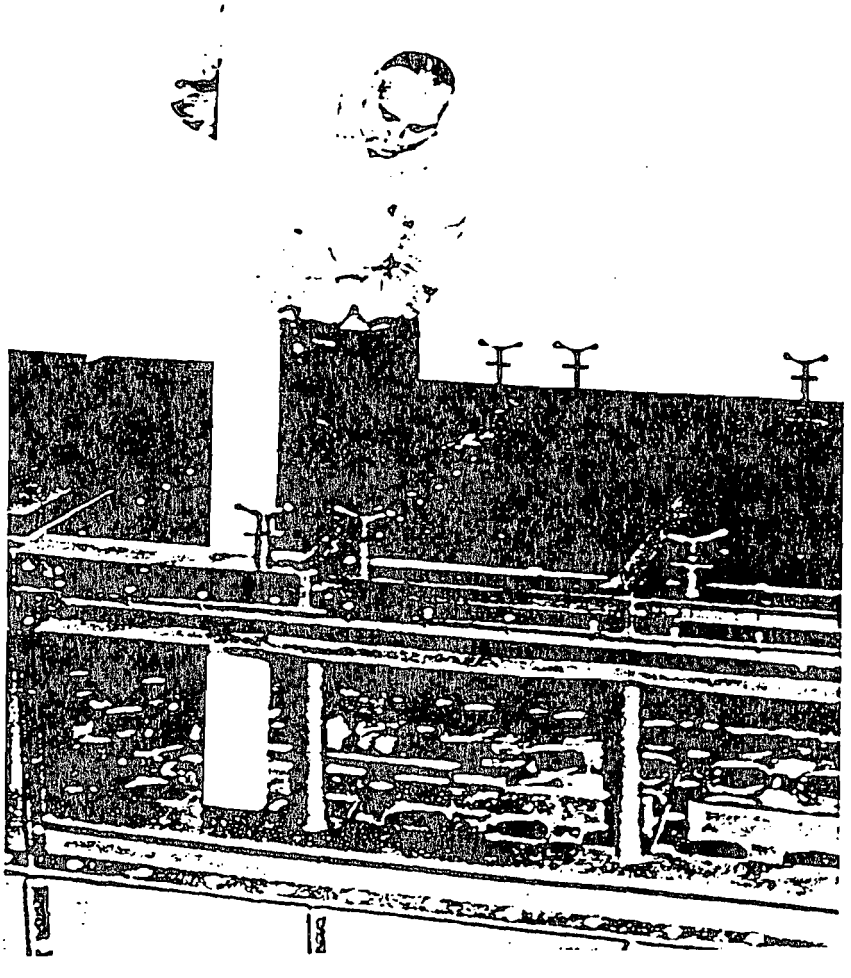
Aluminum venturis
Stainless steel bag clamps
Model 72 Solid State 10-position timer
Lift off access doors (number depending on size)
Primed carbon steel surfaces
Solenoid valves and timer enclosures are NEMA 4
One hinged access door in hopper

Optional Equipment

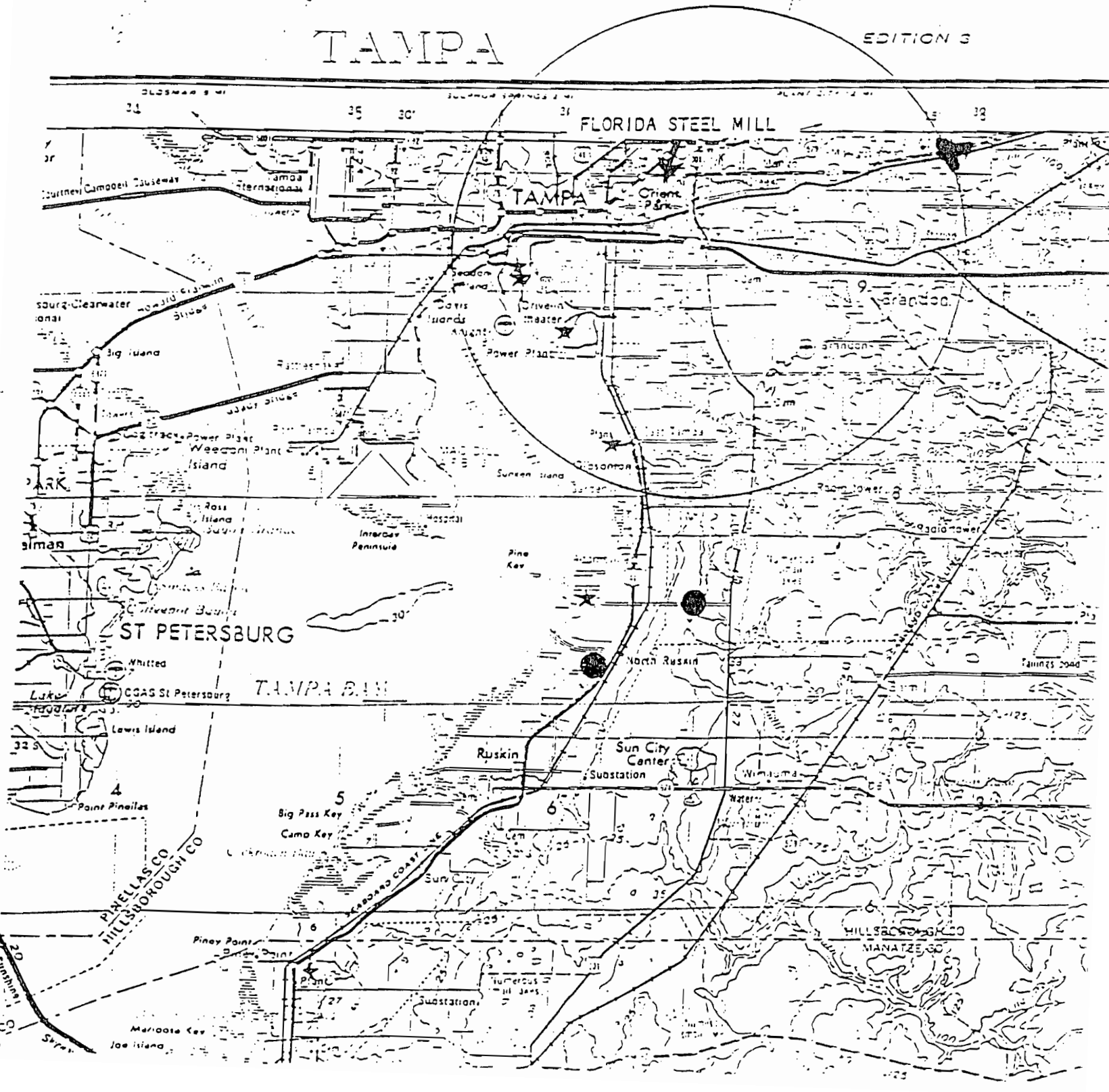
Explosion proof electricals
External catwalk
Designed for use at 500°F.
Explosion doors
Inspection window
Standlegs and bracing
Ladder and cage
Bag grid and/or man grid
Weather hood over access door
Pressure gauge on header
Special interior coatings to your specification
- High quality Mikro bags in wide variety of materials and finishes
- Clean-on-Demand timer
  Epoxy coat, stainless steel 10-wire or 20-wire retainers
- All surfaces that may come in contact with dust or product can be fabricated of fiberglass or stainless steel
  All surfaces that may come in contact with gas can be fabricated of stainless steel

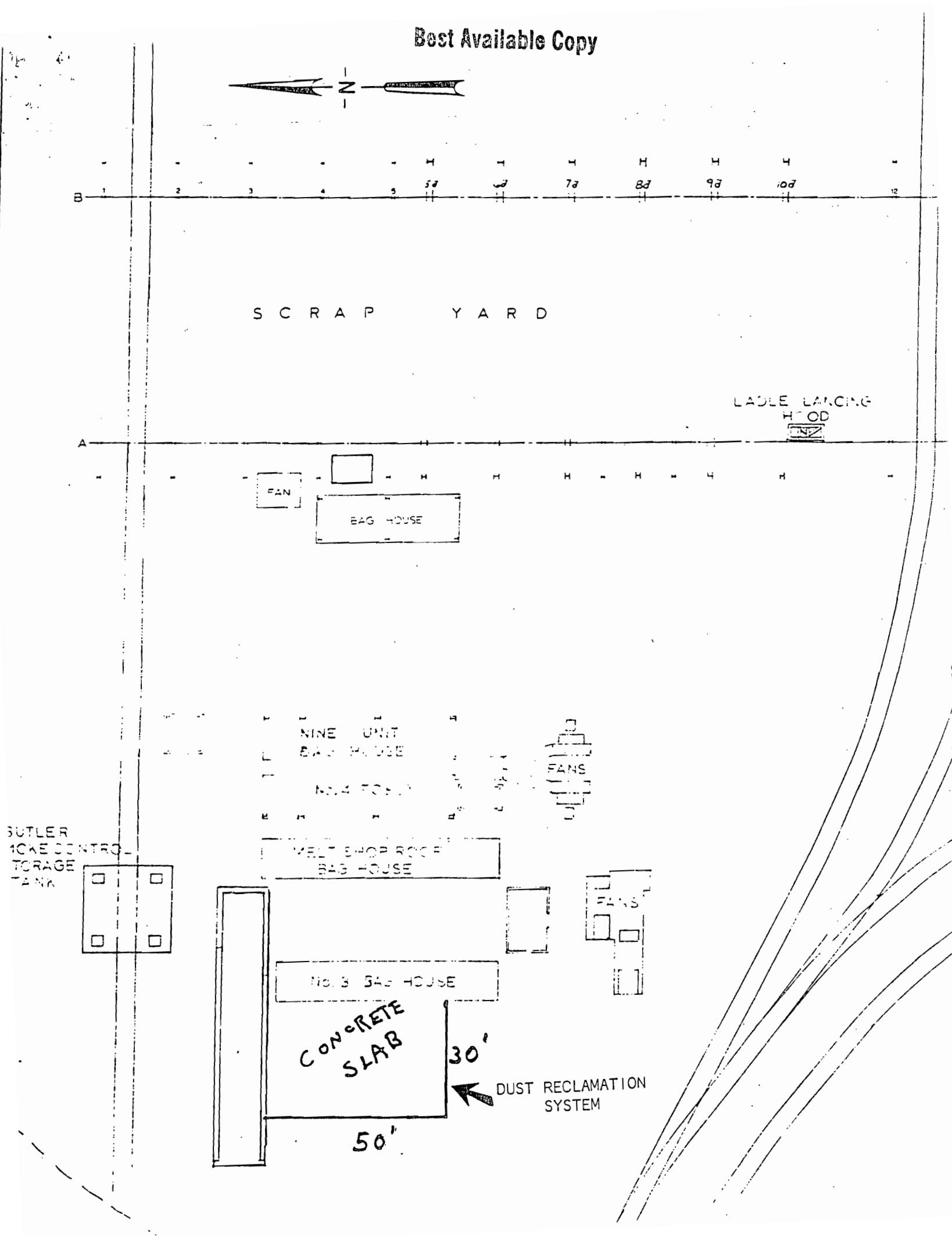
Auxiliary Equipment

Include venting particle size reduction machinery, spray dryers, separators, calciners, mixers, packaging machines, conveyors, carloaders, and a range of process equipment.



HILLSBOROUGH CO P.M.
NON-ATTAINMENT AREA





ATTACHMENT 2

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

May 2, 1986

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Earl Hendry
Manager
Florida Steel Corporation
Tampa Steel Division
P. O. Box 23328
Tampa, Florida 33623

Dear Mr. Hendry:

Re: Completeness Review of an Application to Construct Air Pollution Sources: Permit No. AC 29-117627

The department received on April 4, 1986, your cover letter with enclosures, which included the above referenced application package. The department has reviewed the application package for completeness and finds it to be incomplete. The following information, including all assumptions, calculations and reference documents, will have to be submitted to the department to, once again, ascertain the status of your application package:

- If there is any proprietary information pursuant to Chapter 403.111, Florida Statutes, required in any response, please indicate so and submit as a separate document and the department will maintain confidentiality.

- Quantify the fugitive particulate matter emissions from all sources at the facility. If any efficiencies have to be assumed, provide the department with Region IV EPA's concurrence.

- Quantify the potential pollutant emissions from the combustion of the natural gas, including any other combustion fuels, such as a stand-by or emergency fuel.

- Quantify the potential lead emissions from the facility.

- Quantify the potential lead emissions from the proposed project.

- What is the planned disposition of the existing unpermitted storage silo and associated baghouse system?

- Provide the department with a vendor's guarantee on the proposed baghouse system, which should include the collection efficiency and the outlet grain loading.

- What does the unidentified process arrow entering Reactor 1 represent? Are there any air pollutant emissions associated with it ? If so, quantify the potential pollutant emissions.

- In a meeting with the department's representatives on April 25, 1986, there was a mention of a briquetter. Will this be a source of air pollutant emissions ? If so, quantify the potential pollutant emissions and revise the facility's plot plan.

- Comments from Mr. Jim Estler (FDER's Southwest District) and Mr. Victor San Agustin (Hillsborough County Environmetal Protection Commission) have been incorporated into this letter.

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

Sincerely,

for W. L. Thomas

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

CHF/BM/s

cc: Robert S. Sholtes
Victor San Agustin
Jim Estler

ATTACHMENT 3

MikroPul
Corporation

10 Chatham Road, Summit, NJ 07901 • Phone 201-273-6360 / TLX - 138157 Dom/TLX 6853111 Inter

CONFIDENTIAL

April 28, 1986

DER
MAY 2 1986
BAQM

RECEIVED
MAY 0 1986
BRICMONT & ASSOCIATES, INC.

Bricmont Associates, Inc.
395 Valley Brook Road
McMurray, PA 15317

Attention: Mr. Tom Egeland

Gentlemen:

Subject: Your P.O. No. 4675
MikroPul Collector S/N 860216H1

PERFORMANCE GUARANTEE:

MikroPul Corporation guarantees the performance of one (1) MIKRO-PULSAIRE Model 49S-10-20 Dust Collector with 16 oz/yd^2 Nomex Unt. bags operating under the following conditions:

1.	Gas Flow	1144 ACFM air maximum at 300°F temperature.
2.	Dust Load and Source	Maximum of 9.38 grains of lead oxide based material per standard cubic foot of gas stream. Venting product recovery recycling process.
3.	Filter Ratio	2:1 actual cubic feet of air per minute/ft^2 filter media.
4.	Differential Pressure	6 inches w.g. maximum expected differential pressure across the filter media.
5.	Collection Efficiency	Dust load of effluent leaving MIKRO-PULSAIRE Dust Collector will not exceed 0.01 grains per standard cubic foot of air per minute.

The MIKRO-PULSAIRE is guaranteed to be structurally sound and free from dust leakage when assembled according to MikroPul instructions.

MikroPul
CORPORATION

MikroPul accepts no responsibility for loss of rated capacity or increased differential pressure resulting from: (1) condensed vapor coming in contact with the filter surface; (2) polymerization of polymers within the interstices of the filter; (3) crystallization of chemicals within the interstices of the filter; (4) the presence of extraneous vapors, solids or gases in the gas stream.

MikroPul's liability shall be limited to modification of the equipment (within a reasonable period of time) to meet the performance guarantee. Failing that MikroPul's liability shall be limited to reimbursement of the original purchase price to the customer only after return of the equipment to MikroPul.

The guarantee is considered firm for one full year of operation or 18 months after shipment (whichever comes first), so long as the unit is operated under conditions of good engineering practice. Any alteration to original equipment performed by others than MikroPul or without MikroPul's consent will act to invalidate this guarantee effective as of the date of delivery of the equipment.

Field tests to verify equipment performance as stated in this guarantee will remain the owner's responsibility. All performance tests shall be made in accord with one of the following (or equivalent) published testing procedures: EPA, Federal Register Volume 36, No. 247, Part II; ASTM No. D2928; or IGCI Publication No. 101, or the latest revisions thereof published as of the date this guarantee is effective.

Very truly yours,

MikroPul Corporation

E. Oliver

E. J. Oliver
Manager, Fabric Filters

AK:ck

MikroPul
Corporation

10 Chatham Road, Summit, NJ 07901 • Phone 201-273-6360 / TLX - 138157 Dom/TLX 6853111 Inter

CONFIDENTIAL

April 28, 1986

DER
MAY 2 1986
BAQM

RECEIVED
MAY 01 1986
BRICMONT & ASSOCIATES, INC.

Bricmont Associates, Inc.
395 Valley Brook Road
McMurray, PA 15317

Attention: Mr. Tom Egeland

Gentlemen:

Subject: Your P.O. No. 4691
MikroPul Collector S/N 860236H1

PERFORMANCE GUARANTEE:

MikroPul Corporation guarantees the performance of one (1) MIKRO-PULSAIRE Model 25S-10-20 Dust Collector with 16 oz/yd^2 Nomex Unt. bags operating under the following conditions:

1.	Gas Flow	190 ACFM air maximum at 300°F temperature.
2.	Dust Load and Source	Maximum of 138 grains of zinc per standard cubic foot of gas stream. Venting recovery recycling process.
3.	Filter Ratio	0.6:1 actual cubic feet of air per minute/ft^2 filter media.
4.	Differential Pressure	6 inches w.g. maximum expected differential pressure across the filter media.
5.	Collection Efficiency	Dust load of effluent leaving MIKRO-PULSAIRE Dust Collector will not exceed 0.01 grains per standard cubic foot of air per minute.

The MIKRO-PULSAIRE is guaranteed to be structurally sound and free from dust leakage when assembled according to MikroPul instructions.

MikroPul
CORPORATION

MikroPul accepts no responsibility for loss of rated capacity or increased differential pressure resulting from: (1) condensed vapor coming in contact with the filter surface; (2) polymerization of polymers within the interstices of the filter; (3) crystallization of chemicals within the interstices of the filter; (4) the presence of extraneous vapors, solids or gases in the gas stream.

MikroPul's liability shall be limited to modification of the equipment (within a reasonable period of time) to meet the performance guarantee. Failing that MikroPul's liability shall be limited to reimbursement of the original purchase price to the customer only after return of the equipment to MikroPul.

The guarantee is considered firm for one full year of operation or 18 months after shipment (whichever comes first), so long as the unit is operated under conditions of good engineering practice. Any alteration to original equipment performed by others than MikroPul or without MikroPul's consent will act to invalidate this guarantee effective as of the date of delivery of the equipment.

Field tests to verify equipment performance as stated in this guarantee will remain the owner's responsibility. All performance tests shall be made in accord with one of the following (or equivalent) published testing procedures: EPA, Federal Register Volume 36, No. 247, Part II; ASTM No. D2928; or IGCI Publication No. 101, or the latest revisions thereof published as of the date this guarantee is effective.

Very truly yours,

MikroPul Corporation

E Oliver

E. J. Oliver
Manager, Fabric Filters

AK:ck

ATTACHMENT 4

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

SKEC 101-86-05

May 5, 1986

Mr. Clair Fancy
Deputy of Air Quality Management
Florida Department of
Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

Re: Completeness Review
Permit AC29-117627

Dear Mr. Fancy:

On behalf of Mr. Earl Hendry and the Florida Steel Corporation, this letter is forwarded in response to that completeness review forwarded by you to Mr. Hendry on May 2, 1986. Responses are made in the following text in the same order as questions were raised in that letter.

1. During a joint meeting between the FDER staff and representatives of Florida Steel Corporation and Bricmont & Associates, the proprietary information associated with this application was submitted and reviewed to the satisfaction of FDER staff. These data remain available to your staff if further information is required.

2. Estimates of fugitive particulate matter emissions were requested but it is our understanding from the meeting in your offices of May 2, 1986 that this is now a moot point. For this reason, no action has been taken on this item.

3. The potential pollutant emissions from the combustion of natural gas in the dust reclamation system are as follows:

SO2	0.0016 lb/hr	0.0067 T/yr
NOx	0.2700 lb/hr	1.1300 T/yr
CO	0.0540 lb/hr	0.2300 T/yr
Non Methane VOC	0.0140 lb/hr	0.0590 T/yr
Methane	0.0081 lb/hr	0.0340 T/yr
Particulates*	0.0029 lb/hr	0.0120 T/yr

*These emissions are in addition to the baghouse.

Natural gas is the only fuel proposed for this process. There are to be no stand-by or emergency fuel capabilities. Data used in the development of this table are attached.

4. Potential lead emissions from the existing facility derive from the several baghouse emission points as well as fugitive emissions from the two electric arc furnaces in the meltshop building. Estimates of potential lead emissions from this combined facility are summarized below with detailed computations attached.

Actual Emissions	
Baghouses	0.33 lb/hr
Fugitive	0.97 lb/hr
RACT Emissions	
Baghouses	0.91 lb/hr
Fugitive	0.97 lb/hr

5. Lead emissions from the proposed dust reclamation project are as follows based upon the design system flow rate, assumed baghouse emission grain loading limit and pilot scale dust constituents as determined by Bricmont & Associates, the process vendor.

Baghouses 0.035 lb/hr

The deviation of this emission involves confidential data and is therefore included in the confidential information package associated with this application.

6. The existing unpermitted storage silo and associated baghouse system will be disassembled and removed from service. A portion of the storage silo will be relocated and used as a surge tank in the input of the new reclamation system. This

reconstructed silo or surge tank will not have any vent to the atmosphere and therefore, will not constitute an emission point.

7. Written guarantees on the part of the baghouse vendor were provided to the FDER staff during our joint meeting of May 2, 1986. Through this action, it is considered this item has been cleared.

8. The unidentified process arrow entering Reactor 1 of the flow diagram of the permit application was not intentially left without label. This arrow should have indicated "Process Gases" and the absence of this label was an oversight on the part of the permit preparer. During the meeting of Florida Steel, Bricmont and FDER staff on May 2, 1986, details of these processed gase were orally provided to the FDER staff and adequate demonstration made to establish these gases do not affect the environment from a pollutant point of view. It is felt that this information has been furnished via the joint meeting and therefore, the information requested in item 8 has been completed.

9. The process is designed to include a briquet manufacturing unit at the point of the FeO product discharge. It is not anticipated that this unit will produce airborne emissions however, the vendor (Bricmont & Associates) is providing a dust collection hood arrangement on this unit and routing this collected airborne dust to the "lead baghouse" thereby controlling any dust emissions which otherwise would escape to the ambient air. This dust collection point, like that on the pelletizing machine, essentially form a source of dilution air for the lead baghouse and therefore, do not contribute to added emissions from the process as a whole.

I trust that these data will constitute adequate additional information to enable the continued processing of the subject permit. I would emphasize to you that the applicant is most anxious to have

the permitting process continue and is willing to make extraordinary efforts to provide any further information you require in order to attain this objective.

Sincerely,

SHOLTES & KOOGLER,
ENVIRONMENTAL CONSULTANTS

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

RSS:ldh

cc: Bricmont & Associates
Mr. Earl Hendry

BAGHOUSE EMISSIONS

FLORIDA STEEL CORPORATION
TAMPA MILL DIVISION

Baghouse	Flow (SCFM)	Measured Emissions gr/SCF	Measured Emissions lb/hour	RACT Emissions gr/SCF	RACT Emissions lb/hour
1	36,562	0.0057	1.78	0.0100	3.12
2	62,569	0.0023	1.23	0.0100	5.35
3	64,639	0.0045	2.49	0.0100	5.53
4	99,668	0.0031	2.64	0.0100	8.52
Total			8.14		22.52

Lead Oxide in Dust is 4.32% by weight.
Actual lead emissions are therefore:

8.14 lb/hr x 0.0432 x 207/(207 + 16) = 0.33 lb/hr as Pb.

RACT lead emissions are therefore:

22.52 lb/hr x 0.0432 x 207/(207 + 16) = 0.91 lb/hr as Pb.

FUGITIVE DUST EMISSIONS

FLORIDA STEEL CORPORATION
TAMPA MILL DIVISION

EPA Report by PEDCo, 1983, Page 3-16

Uncontrolled Emissions

27 lb/ton melt down and refining
2 lb/ton tap and charge

PEDCo inspectors estimated capture efficiency as follows:

EAF 3 Side Draft - 95%
EAF 4 Side Draft - 98%

Production Rate (1983) 17.8 tons/hr EAF3 (45%)
21.8 tons/hr EAF4 (55%)

PEDCo inspectors estimated roof canopy capture efficiencies as follows:

EAF 3 - 90%
EAF 4 - 95%

Side draft hoods are now replaced by fourth hole systems for which efficiency is better, assume 98% for each.

1985 steel production = 209,642 tons

EAF 3 - 94,233 tons
EAF 4 - 115,409 tons

Fugitive Emissions for EAF 3:

27 lb/ton x 0.02 x 94,233 tons + 2 lbs/ton x 0.10 x 94,233
= 69,732 lbs EAF dust per year.

Fugitive emissions for EAF 4:

27 lb/ton x 0.02 x 115,409 + 2 lb/ton x 0.05 x 115,409
= 73,862 lbs EAF dust per year.

Lead Emissions where PbO is 4.32% by weight of dust:

(69,732 + 73,862) x 0.0432 x 207/223 = 5,785 lb Pb/year.

1985 Operating Hours = 5,928

Hourly Lead Emissions via fugitive dust = 5758/5928 = 0.97 lb/hr.

NOTE: In presenting these estimates, neither Florida Steel nor R. S. Sholtes intends to recognize or attach validity to the capture efficiency estimates made by PEDCo, the EPA Contractor, nor for that matter, the legitimacy of this methodology dealing with capture efficiency estimates.

POTENTIAL EMISSIONS FROM NATURAL GAS COMBUSTION

FLORIDA STEEL CORPORATION
TAMPA MILL DIVISION

Natural gas is consumed in three units of the reclamation process:

Dryer	0.85 MBTU/hr	= 810 cu. ft./hr.
Heater	1.00 MBTU/hr	= 952 cu. ft./hr.
Reactor 2	1.00 MBTU/hr	= 952 cu. ft./hr.

The exhaust of the first two passes through the lead baghouse, that of the third exits directly to the atmosphere.

Using AP-42, Table 1.4-1, Uncontrolled Emission Factors for Natural Gas Combustion:

Sulfur dioxide	-	0.6 lb/10^6 cu. ft.
NOx	-	100 lb/10^6 cu. ft.
CO	-	20 lb/10^6 cu. ft.
Non-Methane VOC	-	5.3 lb/10^6 cu. ft.
Methane	-	2.7 lb/10^6 cu. ft.
Particulates	-	3.0 lb/10^6 cu. ft.l

Estimated Emissions are therefore:

Sulfur dioxide	- 0.0016 lb/hr	- 0.0067 tons per year.
NOx	- 0.27 lb/hr	- 1.13 tons per year.
CO	- 0.054 lb/hr	- 0.23 tons per year.
Non Methane VOC	- 0.014 lb/hr	- 0.059 tons per year.
Methane	- 0.0081 lb/hr	- 0.034 tons per year.
Particulates*	- 0.0029 lb/hr	- 0.012 tons per year.

Based on 8,400 hours/year of operation.

*These emissions are in addition to the baghouse particulate emissions.

United States
Environmental Protection
Agency

Office of Air Quality
Planning and Standards
Research Triangle Park NC 27711

EPA-450/3-82-020a
July 1983

Air

EPA

Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels in Steel Industry — Background Information for Proposed Revisions to Standards

Draft EIS

NSPS

TABLE 3-10. EXHAUST GAS PARTICULATE MATTER COMPOSITION[22,26,27,32,46] (Percent)

Constituent	Process	
	EAF[a]	AOD[b]
Fe_2O_3	19-53	--
CaO	3-14	7.4
Al_2O_3	1-13	1.6
SiO_2	0.9-9	8.9
MgO	2-15	3.2
Mn_2O_3	0.6	--
ZnO	0-16.3	3.4
NiO	0-3	3.1
Cr_2O_3	0-14	11.4
CuO	0.1	--
MnO	0.6-12	15.6
WO_3	--	0.2
MoO_3	--	0.9
Cu_2O	--	0.4
Cl	1.2	0.4
V_2O_5	--	0.1
TiO_2	--	0.8
PbO	0-4	1.2
Nb_2O_3	--	0.1
FeO	4-10	34.4
C	--	1.7
P	--	0.1
S	--	0.7
Na_2O	1.5	--
LOI[c]	4.3-6.8	--
Other	4.8	3.9

[a] Carbon steel.
[b] Specialty steel.
[c] Loss on ignition.

ATTACHMENT 5

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

SKEC 101-86-06

May 5, 1986

Mr. Bruce Mitchell
Florida Department of
Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32301

Dear Mr. Mitchell:

Enclosed you will find the information on the Florida Steel Corporation's Dust Reclamation project.

If you have any questions regarding this information, please do not hesitate to contact me.

Sincerely,

SHOLTES & KOOGLER,
ENVIRONMENTAL CONSULTANTS

Robert S. Sholtes/pc

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

RSS:pdt
Enclosure

The chemistry and material characteristics of electric furnace baghouse dust provide the physical parameters to allow the separation and reclamation of zinc, lead and iron oxide by the recycling process which is herein described. The reclaimed zinc will be a commercial grade of elemental zinc suitable for direct use in the production of paint pigments, galvanizing materials and other products. The reclaimed lead will be a commercial grade of elemental lead suitable for direct use in the production of cable shieldings, batteries and other products. The residual materials, composed primarily of iron oxides, are well suited for use as a charge material for the electric arc furnaces at the Tampa steel mill. All of the residual materials will be so used. None will require treatment or disposition by other means.

The composition of the process gas was described to Messrs. Mitchell, Thomas and Diltz of the Florida Department of Environmental Regulation at the meeting held May 2, 1986 in Tallahassee. It is our understanding that they are satisfied that the composition of the process gas which is confidential and proprietary information is not harmful to the environment or human health.

Emissions will be controlled by two baghouses. An application to construct air pollution sources with respect to these controlled

low-volume emissions has been filed with the State of Florida, Department of Environmental Regulation.

ATTACHMENT 6

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

June 2, 1986

Mr. Roderick K. Shaw, Jr.
Allen, Dell, Frank & Trinkle
Post Office Box 2111
Tampa, Florida 33601

Dear ~~Mr. Shaw:~~ Rod

This is in response to your letter of April 7 concerning the hazardous waste permitting requirements for the K061 emission control dust recycling facility at Florida Steel's Tampa mill. Your letter basically describes a direct feed from the facility baghouse to successive lead and zinc reclamation units with the residuals being charged back into the electric arc furnaces.

K061 emission control dust is a listed hazardous waste and as such is subject to hazardous waste regulations. The actual reclaming of components of K061 (i.e. lead and zinc) and reuse of residual materials from this reclamation are activities which do not require a permit. However, storage prior to this reclamation is regulated. If the hazardous waste is accumulated and stored in containers or tanks for up to 90 days the requirements of 40 CFR Part 262.34 apply. If the waste is accumulated for greater than 90 days or stored by a method other than containers or tanks the full range of hazardous waste regulations including permitting are applicable.

The description you have included indicates that there will be no storage of this material prior to its reclamation. If this is the case, Florida Steel's only requirement is notification as a hazardous waste generator. The draft notification you submitted is not necessary and can not be accepted.

I hope this letter has been of assistance to you. If there are any further questions concerning this matter, please contact Craig Diltz of my staff.

Sincerely,

Bob

Robert W. McVety, Chief
Bureau of Waste Management

DER
JUN 5 1986
BAQM

RWM/ls

cc: Elaine Houston - EPA/Region IV