

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 29, 1983

Mr. R. B. Hutchens
Plant Manager
Florida Steel Corporation
Post Office Box 518
Baldwin, Florida 32234

Dear Mr. Hutchens:

The bureau is in receipt of your request for a modification of your construction permit, No. AC 16-47926. This request is acceptable and the condition is added as follows:

Specific Conditions:

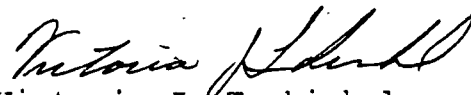
"No. 13": Maximum natural gas consumption and heat input shall not exceed 177,543 cubic feet per hour and 185×10^6 Btu per hour, respectively.

Attachments to be included are as follows:

6. Robert S. Sholtes' letter dated March 16, 1983.
7. C. H. Fancy's letter dated March 30, 1983.
8. John B. Koogler's letter dated May 19, 1983.

This letter and attachments must be attached to your permit, No. AC 16-47926, and shall become a part of that permit.

Sincerely,


Victoria J. Tschinkel
Secretary

VJT/RBM/bm

ATTACHMENT 6



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

SKEC 101-82-09

March 16, 1983

DER

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

MAR 21 1983

BAQMD

MAR 21 1983

Dear Mr. Mitchell:

The Florida Steel Corporation, Baldwin mill wishes to initiate modifications to their state and federal permits to reflect a change in fuel utilization. The permits of interest are listed below.

1. AC16-47926 (A016-47926) - Reheat Furnace
2. AC16-41114 (A016-55485) - Arc Furnace
3. PSD FL 074

In these various permits and PSD studies alternate fuels were included, specifically reclaimed lubricating oil and crude sulphate turpentine. The company has now determined that they no longer wish to propose the use of these two alternate fuels and would like to have reference thereto purged from the permits.

As an additional change, the company has found it economically attractive to modify both the reheat furnace and the electric arc furnace for utilization of natural gas in place of the fuels oils mentioned and studied in this permitting process. The company would like to retain the option of using the specified fuel oils, however, would like to advise the Florida Department of Environmental Regulation that insofar as possible natural gas will be used on these units in the foreseeable future.

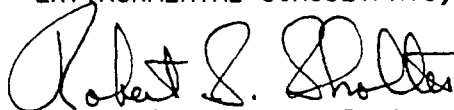
Mr. Bruce Mitchell
Florida Department of
Environmental Regulation

March 16, 1983
Page two

If you need further clarification or more information, please advise.

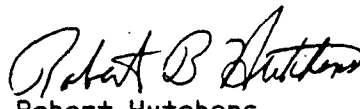
Sincerely,

SHOLTES & KOGLER
ENVIRONMENTAL CONSULTANTS, INC.



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

FLORIDA STEEL CORPORATION,
BALDWIN MILL



Robert Hutchens

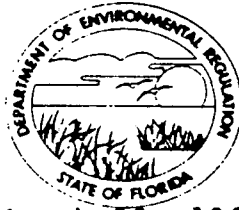
RSS:ldh

cc: Mr. Jerry W. Woosley

ATTACHMENT 7

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

March 30, 1983

CERTIFIED MAIL RECEIPT

Mr. Robert B. Hutchens, Plant Manager
Florida Steel Corporation
P. O. Box 518
Baldwin, Florida 32234

Dear Mr. Hutchens:

The Bureau has received your request to modify the following permits:

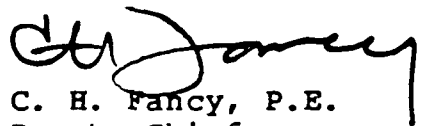
1. AC 16-47926 : Billet Reheat Furnace (BRF)
2. AC 16-41114 : Electric Arc Furnace (EAF)
3. PSD-FL-074 : Federal PSD Permit

The request was to delete the capability of firing reclaimed lubricating oil and crude sulphate turpentine as a fuel. The other request was to modify the referenced permits to allow the firing of natural gas as a fuel.

In order to modify the referenced permits, calculate and submit per furnace the maximum hourly and annual consumption of natural gas and the maximum potential pollutant emissions, including assumptions, referencing current permitted conditions, and attaching copies of all referenced material (AP-42 Emission Factors, etc.).

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

Sincerely,


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

CHF/BM/bjm

cc: Jerry W. Woosley, BES
Robert S. Sholtes, Environmental Consultants, Inc.
Mary Smallwood, General Counsel

ATTACHMENT 8



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

SKEC 101-79-08

May 19, 1983

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

DER

MAY 20 1983

BAQM

Subject: Florida Steel Corporation
Baldwin, Florida
AC16-47926-Reheat Furnace
AC16-41114-Electric Arc Furnace
PSD FL-074

Dear Bruce:

In response to our telephone conversation of May 18, 1983, I am providing the following fuel consumption information for the Florida Steel Corporation's Baldwin Mill. The information provided herein relates to the proposed consumption of natural gas in the electric arc furnace and the billet reheat furnace as addressed in Dr. Sholtès' letter to you dated March 16, 1983.

The electric arc furnace was permitted (by the subject permits) for a heat input rate by supplemental fuel of 26.9 million BTU per hour. The quantity of natural gas required to produce this heat input, at a heating value of 1042 BTU per cubic foot of natural gas, is 0.026 million cubic feet of gas per hour. Based on an annual operating time of 6,770 hours, the annual consumption of natural gas in the electric arc furnace will be 174.8 million cubic feet per year, maximum.

The billet reheat furnace was permitted (by the subject permits) for a heat input of 185 million BTU per hour. The quantity of natural gas required to produce this heat is 0.178 million cubic feet per hour. Based on an annual operating time of 4,891 hours, the annual natural gas consumption for the billet reheat furnace will be 868.4 million cubic feet per year, maximum.

In both the electric arc furnace and the billet reheat furnace, Florida Steel still wishes to have the option to burn new No. 4 fuel oil as presently permitted. This oil will be used as a stand-by fuel only. Natural gas will be the primary fuel in both sources.

Air pollutant emission rates, as affected by the type of fuel burned, were calculated for both the electric arc furnace and the billet reheat furnace assuming natural gas to be the fuel. The emission factors used were published in Supplement 13 of AP-42. It should be noted that a nitrogen oxide emission factor of 140 pounds per million cubic feet of gas was used since the billet reheat furnace is better represented by the operation of an industrial boiler than by the operation of a utility boiler. Nitrogen oxides emissions from the electric arc furnace were calculated by the same method that was used in the original permit application for the electric arc furnace.

The calculated air pollutant emission rates for the billet reheat furnace, assuming the furnace to be fired 100 percent of the time by natural gas, are:

<u>Source</u>	<u>Hourly Emission Rate (Lbs Per Hour)</u>	<u>Annual Emission Rate (Tons Per Year)</u>
Particulate Matter	0.9	2.2
Sulfur Dioxide	0.1	0.3
Nitrogen Oxide	24.9	60.8
Carbon Monoxide	7.1	17.4
V.O.C.	0.2	0.6

The pollutant emission rates calculated for the electric arc furnace, again, assuming that natural gas to be fired 100 percent of the time are:

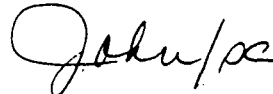
<u>Pollutant</u>	<u>Hourly Emission Rate (Lbs Per Hour)</u>	<u>Annual Emission Rate (Tons Per Year)</u>
Sulfur Dioxide	0.1	0.1
Nitrogen Oxide	0.3	1.2

With the electric arc furnace the emission rate of particulate matter, carbon monoxide, volatile organic compounds will not be influenced significantly by the type of fuel burned. All of the emission rates reported in the above tables are less than emission rates that would be expected if No. 4 fuel oil, as addressed in the original permit applications, was burned 100 percent of the time.

If there are any further questions regarding this matter, please do not hesitate to contact me.

Very truly yours,

SHOLTES & KOOGLER,
ENVIRONMENTAL CONSULTANTS, INC.



John B. Koogler, Ph.D., P.E.

JBK:sc

cc: Mr. Robert B. Hutchens
Mr. Louis Mustain