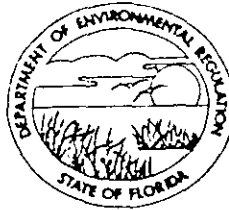


SUN CLUB ROAD
BOX 3858
WEST PALM BEACH, FLORIDA 33402



5/29/80
BOB GRAHAM
GOVERNOR

JACOB D. VARN
SECRETARY

WARREN G. STRAHM
SUBDISTRICT MANAGER

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTH FLORIDA SUBDISTRICT

APIS # 50/13/0020/18,01,04 & 06
Class A; 3,4,5, & 6

APPLICANT: Mr. Albert W. Townsend
Coordinator of Ecological Planning
Lonestar Florida/Pennsuco, Inc.
Post Office Box 2035, P.V.S.
Hialeah, Florida, 33012

PERMIT/CERTIFICATION
NO. AC 13-27742

COUNTY: Dade

PROJECT: Lonestar Florida/
Pennsuco, Inc.

Coal Handling/Conversion for
Kilns 1,2 & 3

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Chapter 17-2, Florida Administrative Code. The above named applicant, hereinafter called Permittee, is hereby authorized to perform the work or operate the facility shown on the approved drawing(s), plans, documents, and specifications attached hereto and made a part hereof and specifically described as follows:

To construct and to modify air pollution sources by installing a 38 ton/hr. coal handling system and making modifications to Kilns 1,2, and 3 in order to be able to utilize coal as a primary fuel source. The coal handling system, operating 24 hrs./day, 7 days/wk., 52 wks./yr consists of: A 23 ton/hr. mill with cyclone and 4 baghouses emitting 3.1 lbs./hr. particulate through an emission point 80 feet above ground level (A.G.L.); a 15 ton/hr. mill with cyclone and 3 baghouses emitting 2.1 lbs./hr. particulate through an emission point 80 feet A.G.L.; Feedbin and elevator emitting 0.3 lbs./hr. particulate through a common point 90 feet A.G.L.; and (front end) hopper and weigh feeders emitting 0.3 lbs./hr. particulate through a common point 68 feet A.G.L. The conversion to coal will result in sulfur dioxide emission increases up to 56.7 lbs./hr. allowable (each) for Kilns 1 and 2 and to 26.3 lbs./hr. allowable for Kiln 3.

In accordance with: Specifications and attachments contained in Application to Construct Air Pollution Sources dated February 8, 1980 and letters dated May 8, 1980 and May 22, 1980 (none are attached).

Located at: 11000 Northwest 121 Street, Hialeah, Dade County, Florida
UTM COORDINATES: Zone 17; 562.8 KmE.; 2861.7 KmN.

Serving: A wet process portland cement manufacturer- (SIC# 3241).

Subject to General Conditions 1 through 13 and Specific Conditions, 1 through 11.

PERMIT NO.: AC 13-27742 - Lonestar Florida/Pennsuco, Inc.
APPLICANT: Mr. A. W. Townsend, Coordinator of Ecological Planning

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 Section 403.161(1), Florida Statutes. Permittee is hereby placed on notice that the department will review this permit periodically and may initiate court 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 indicated in the attached drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit shall constitute grounds for revocation and enforcement action by the department.

3. 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 non-compliance, including exact dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the department for penalties or revocation of this permit.

4. As provided in subsection 403.087(6), Florida Statutes, 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.

5. This permit is required to be posted in a conspicuous location at the work site or source during the entire period of construction or operation.

6. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the department, may be used by the department as evidence in any enforcement case arising under the Florida Statutes or department rules, except where such use is proscribed by Section 403.111, F.S.

7. In the case of an operation permit, permittee agrees to comply with changes in department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or department rules.

8. 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, except where specifically authorized by an order from the department granting a variance or exception from department rules or state statutes.

9. This permit is not transferable. Upon sale or legal transfer of the property or facility covered by this permit, the permittee shall notify the department within thirty (30) days. The new owner must apply for a permit transfer within thirty (30) days. The permittee shall be liable for any non-compliance of the permitted source until the transferee applies for and receives a transfer of permit.

10. The permittee, by acceptance of this permit, specifically agrees to allow access to permitted source at reasonable times by department personnel presenting credentials for the purposes of inspection and testing to determine compliance with this permit and department rules.

11. This permit does not indicate a waiver of or approval of any other department permit that may be required for other aspects of the total project.

12. This permit conveys no title to land or water, nor constitutes state recognition or acknowledgement of title, and does not constitute authority for the reclamation 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.

13. This permit also constitutes:

- Determination of Best Available Control Technology (BACT)
- Determination of Prevention of Significant Deterioration (PSD)
- Certification of Compliance with State Water Quality Standards (Section 401, PL 92-500)

PERMIT NO.: AC-13-27742 - Lonestar Florida/Pennsuco, Inc.
APPLICANT: A.W. Townsend, Coordinator of Ecological Planning

SPECIFIC CONDITIONS:

1. Application for permit to operate to be submitted at least sixty (60) days prior to the expiration date of this permit.
2. The applicant shall retain the engineer-of-record for inspection of the construction of the plant. The form DER 17-1.122(20) (Certificate of Completion of Construction) satisfactorily completed with a \$20.00 fee, may be submitted in lieu of an application for an operation permit.
3. *SO₂* { The ability to secure low sulfur coal (2 percent sulfur max.) in needed quantities shall be verified. Such verification shall be submitted along with a sulfur analysis of the coal fired in each kiln during sulfur dioxide emission testing to the Department of Environmental Regulation, South Florida Subdistrict Office and to Metropolitan Dade County Environmental Resources Management no later than twenty (20) days after completion of tests.
4. *Test* Kilns 1, 2 and 3 shall each be tested for nitrogen oxides, sulfur dioxide and particulate emissions in accordance with the Code of Federal Regulations (CFR) number 40 CFR 60 Appendix A, Methods 1 through 7, prior to application for operation permit. Reports shall be submitted to the Department of Environmental Regulation, South Florida Subdistrict Office and to Metropolitan Dade County Environmental Resources Management no later than twenty (20) days after completion of tests.
5. *VE* Kilns 1,2,3 and Coal Handling System emission points shall each be observed for visible emissions in accordance with Code of Federal Regulations (CFR) number 40 CFR 60 Appendix A, Method 9, entitled "Visual Determination of the Opacity of Emissions from Stationary Sources, " prior to application for operation permit. Reports shall be submitted to the Department of Environmental Regulation, South Florida Subdistrict Office and to Metropolitan Dade County Environmental Resources Management no later than twenty (20) days after completion of tests.
6. Emissions must not exceed the Best Available Control Technology determinations approved for this project April 8, 1980:

Particulate from coal handling systems - 0.01 grains/dscf
& 5% opacity

SO₂ emission {

Sulfur dioxide from Kilns 1 & 2 - 1.42 lb./ton dry feed
Sulfur dioxide from Kiln 3 - 0.19 lb./ton dry feed

7. Testing of emissions must be accomplished at approximately the rates as stated in the permit. Failure to submit the input rates or operation at conditions which do not reflect actual operating conditions may invalidate the data.

PERMIT NO.: AC-13-27742 - Lonestar Florida/Pennsuco, Inc.
APPLICANT: A.W. Townsend, Coordinator of Ecological Planning

SPECIFIC CONDITIONS CONTINUED:

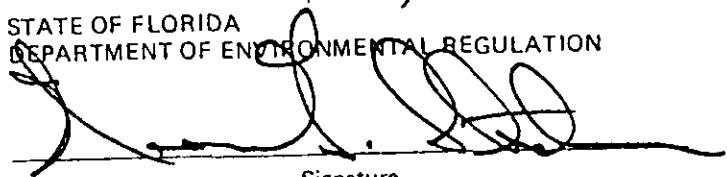
8. Fugitive particulates generated at this site shall be adequately controlled. Fugitive dust to be controlled by dust suppressant(s), or other methods, approved by the Department.
9. There shall be no discharges of liquid effluents or contaminated runoff from the plant site.
10. Emissions reductions referenced in the May 22, 1980 letter incorporated as part of the construction application for this permit, shall be required to be completed prior to issuance of an operation permit for the sources permitted herein.
11. Emission reductions shall be accomplished; under appropriate construction permits, by surrendering operation permits, by modifying affected permits and/or by any other method deemed necessary by this Department for adequate documentation.

Expiration Date: May 31, 1982

Issued this 28TH day of MAY, 1980

 Pages Attached.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION



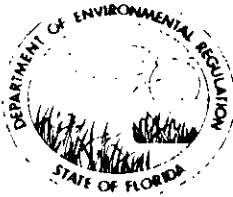
Signature

Warren G. Strahm
Subdistrict Manager

PAGE 4 OF 4

WGS:TAT:mh

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



BOB GRAHAM
GOVERNOR
JACOB D. VARN
SECRETARY

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

MEMORANDUM

TO: Ron Fahs, Intergovernmental Coordination
THRU: Bill Thomas
FROM: Carl Bock
DATE: June 19, 1980
SUBJ: Lonestar/Pennsuco Construction Application

The Bureau of Air Quality Management has reviewed your letter of June 11, 1980 concerning Lonestar/Pennsuco Incorporated's intent to apply for an air construct permit. A BACT review was performed on the application on April 7, 1980 (copy attached). The construction permit was issued by the Palm Beach office in April of 1980. The Bureau is in concurrence with the EPA's intent to issue a permit.


CB:caa

DEPARTMENT OF ENVIRONMENTAL REGULATION

INTEROFFICE MEMORANDUM

For Routing To District Offices
And/Or To Other Than The Addressee

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

TO: Jacob D. Varn
 FROM: Steve Smallwood 
 DATE: April 7, 1980
 SUBJECT: BACT Determination - Lonestar Florida/Pennsuco, Inc., Dade County

Facility: A modification to a Portland Cement plant involving a change from oil/gas to coal as the primary fuel. The change will consist of constructing a 38 ton-per-hour coal handling facility to supply three existing cement kilns: Kilns No. 1 and No. 2 each with a raw material input rate of 40 tons per hour, and kiln No. 3 with a raw material input rate of 142 tons per hour. Emissions from the three kilns are controlled by electrostatic precipitators.

Potential emissions of applicable criteria pollutants from use of coal versus use of gas or oil are:

Coal Handling System

<u>Source</u>	<u>Particulate Emission (ton/yr)</u>
23 Ton Mill	13,500
15 Ton Mill	9,000
Feedbin and elevator	1,300
Hopper and weight-feeder	1,300

Cement Kilns

<u>Source</u>	<u>Pollutant Emissions</u>
<u>Kiln No. 1</u>	<u>Particulate (ton/yr)*</u>
Coal Fired	24,966
Gas Fired	24,966
Oil Fired	24,966

*See "Cement Kilns", Page 5

Sulfur Dioxide (ton/yr)

Coal Fired 248.4
 Gas fired 19.7
 Oil Fired 198.6

Nitrogen Oxide (ton/yr)

Coal Fired 185.3
 Gas fired 741.3
 Oil Fired 491.0

Kiln No. 2

Kiln No. 3

As for Kiln No. 1

Particulate *

Coal Fired 87,381
 Gas Fired 87,381
 Oil Fired 87,381

Sulfur Dioxide (ton/yr)

Coal Fired 115.1
 Gas Fired 10.3
 Oil Fired 95.9

Nitrogen Oxides (ton/yr)

Coal Fired 648.7
 Gas Fired 2474.7
 Oil Fired 1638.1

*See "Cement Kilns", Page 5

BACT Requested by the Applicant:

Coal Handling/Pulverizing System

<u>Source</u>	<u>Allowable Particulate Emissions</u>	
	<u>lbs/hr</u>	<u>ton/yr</u>
23 Ton Mill	3.1	13.5
15 Ton Mill	2.1	9.0
Feedbin & Elevator	0.3	1.3
Hopper & Weight Feeder	0.3	1.3

Emissions to be attained with four baghouses each having collection efficiency of 99.9%, and outlet loading of 0.01 grains/dscf.

Jacob D. Varn
Page Three
April 7, 1980

Cement Kilns

<u>Source</u>	<u>Allowable Sulfur Dioxide Emission</u>	
	<u>lbs/hr</u>	<u>ton/yr</u>
Kiln No. 1	56.7	248.4
Kiln No. 2	56.7	248.4
Kiln No. 3	26.3	115.1

Date of Receipt of a Complete Application:

February 8, 1980

Date of Publication in the Florida Administrative Weekly:

February 27, 1980

Date of Publication in A Newspaper of General Circulation:

February 18, 1980, The Miami Herald

Study Group Members:

Willard Hanks, DER Bureau of Air Quality Management, Tallahassee;
John Svec, DER Bureau of Air Quality Management, Tallahassee

Study Group Recommendations:

Coal Handling & Pulverizing Systems

	<u>Allowable Emissions</u> <u>Particulate (lb/hr)</u>	<u>Opacity</u>
<u>23 Ton Mill</u>		
John Svec	3.1	20 percent
Willard Hanks	3.1 (0.01 gr/dscf)	5 percent
<u>15 Ton Mill</u>		
John Svec	2.1	20 percent
Willard Hanks	2.1 (0.01 gr/dscf)	5 percent
<u>Feedbin & Elevator</u>		
John Svec	0.3	20 percent
Willard Hanks	0.34 (0.01 gr/dscf)	5 percent
<u>Hopper & Weight Feeder</u>		
John Svec	0.3	20 percent
Willard Hanks	0.34 (0.01 gr/dscf)	5 percent

Jacob D. Varn
Page Four
April 7, 1980

Cement Kilns

Allowable Emissions
Sulfur Dioxide (lb/hr)

Kiln No. 1

John Svec	56.7
Willard Hanks	56.7

Kiln No. 2

John Svec	56.7
Willard Hanks	56.7

Kiln No. 3

John Svec	26.3
Willard Hanks	26.3

BACT Determination by Florida Department of Environmental Regulation:

Coal Handling & Pulverizing Systems

Maximum Allowable
Particulate Emission

23 Ton Mill	3.1 lb/hr (0.01 grains/dscf), and 5% opacity
15 Ton Mill	2.1 lb/hr (0.01 grains/dscf), and 5% opacity
Feedbin & Elevator	0.3 lb/hr (0.01 grains/dscf), and 5% opacity
Hopper & Weight Feeder	0.3 lb/hr (0.01 grains/dscf), and 5% opacity

Cement Kilns

Maximum Allowable Emissions

Sulfur Dioxide

Kiln No. 1	1.42 lb/ton dry feed; not to exceed 56.7 lb/hr.
Kiln No. 2	1.42 lb/ton dry feed; not to exceed 56.7 lb/hr.
Kiln No. 3	0.19 lb/ton dry feed; not to exceed 26.3 lb/hr.

Justification of DER Determination:

Coal Handling & Pulverizing System

Addition of the coal handling and pulverizing system constitutes a modification of a major emitting facility. Actual emissions from the system will result in 25.1 tons per year above the baseline; potential emissions will exceed 250 tons per year. The facility is thus subject to Chapter 17-2.04(6) FAC, Prevention of Significant Deterioration (PSD) regulation and to Chapter 17-2.03 FAC, Best Available Control Technology (BACT) regulation.

The applicant proposed four bag-collectors with emissions of 0.01 grains/dscf and an opacity limitation of 20 percent to meet the BACT regulation requirements. The proposed control equipment and particulate emission limitation was found representative of BACT. However, the applicant's proposed 20% opacity was considered excessive relative to the 0.01 grains particulate/dscf emission standard. Five percent opacity was selected as BACT because it corresponds realistically with a 0.01 grains/dscf emission standard.

Cement Kilns

The switch from oil to coal will result in increase of emissions for one pollutant: sulfur dioxide. Although coal is considered a "dirtier" fuel than oil or gas because of its higher ash content, it should be noted that potential emissions of particulate from a cement kiln are not strongly dependent on the type of fuel burned. This is due to two factors:

- (1) When the kilns burn oil or gas, ash must be added as one of the raw materials. With the coal conversion, the ash added to the system will be reduced or eliminated since it will be available directly from the coal combustion.
- (2) Ash whether from combustion or raw material is a minor contributor when compared to total process materials.

Applicant has committed to no increase in actual particulate emissions, a reasonable commitment in view of (1) and (2) above. Since there will be no increase in actual particulate emissions, this facility is not subject to BACT for particulate for the modifications to the kilns.

Jacob D. Varn
Page Six
April 7, 1980

With respect to nitrogen oxides, the applicant has provided adequate data (see attachment A) showing that, in the Portland Cement industry, burning coal produces less NO_x emissions than burning oil or gas.

The only pollutant emission from the kilns subject to the Best Available Control Technology regulation is sulfur dioxide: actual sulfur dioxide emissions will increase by 119 tons per year over the baseline. The applicant proposes to control sulfur dioxide limiting the sulfur content in the coal to 2%. In addition over 90 percent of the sulfur dioxide resulting from coal combustion is expected to be captured by the limestone in the kilns; the applicant stack test reports document this removal efficiency resulting from reaction of sulfur dioxide with the limestone in the kiln. To achieve greater removal of sulfur dioxide would require additional control equipment. The cost of installing and operating this equipment cannot be justified economically by the minimal improvement on ambient air impact. Therefore, the proposed emission level was considered acceptable as BACT. There are no applicable federal NSPS standards.

Details of the Analysis May be Obtained by Contacting:

Victoria Martinez, BACT Coordinator
Department of Environmental Regulation
Bureau of Air Quality Management
2600 Blair Stone Road
Twin Towers Office Building
Tallahassee, Florida 32301

Recommendation from: Bureau of Air Quality Management

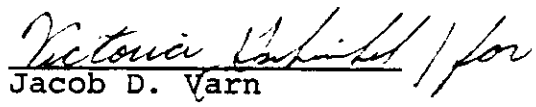
By:


Steve Smallwood

Date:

April 8, 1980

Approved by:


Victoria Martinez / for
Jacob D. Varn

DATE:

April 8, 1980

SS:caa

Attachment

ATTACHMENT A
BACT APPLICATIONS