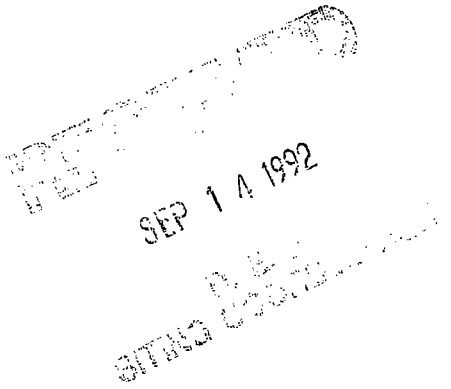
ORLANDO UTILITIES COMMISSION
500 SOUTH ORANGE AVENUE • P. O. BOX 3193 • ORLANDO, FLORIDA 32802 • 407/423-9100

September 11, 1992



Mr. Hamilton S. Oven
Administrator
Siting Coordination Office
Florida Department of
Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: AQC Equipment Status Report

Dear Mr. Oven:

The enclosure to this letter provides a status report outlining progress to date on engineering design and purchase of major air pollution control equipment for Stanton Energy Center, Unit 2. The submittal of this status report is required by the Supplemental Conditions of Certification, Part II, Item II/I.D.3.

The following items are considered as major pieces of air pollution control equipment.

- Steam generator
- Post Combustion No_x Reduction System (SCR)
- Flue Gas Particulate Removal Equipment
- Flue Gas Scrubber
- Chimney
- Fly Ash Handling System
- Dust Collection Equipment

Please advise if any information other than that included in the status report provided herewith is required. Future status report submittals will be made to update progress for air pollution control equipment on a quarterly basis.

Very truly yours,

G. A. DeMuth
Director
Environmental Division

GAD:rc
Enclosure

xc: K. P. Ksionek
F. F. Haddad
D. M. Spencer
H. E. Smith (B&V)

Orlando Utilities Commission
Stanton Energy Center, Unit 2

September 8, 1992

Air Pollution Control Equipment
Status Report

This status report indicates the progress to date on engineering design and purchase of major air pollution control equipment for Stanton Energy Center, Unit 2. This report covers the period through August 1992. Data regarding engineering status and fabrication status is based on information supplied and drawings submitted by the equipment suppliers. The delivery status is based on contract requirements.

EQUIPMENT: Steam Generator

CONTRACTOR: Babcock & Wilcox

BID ISSUE: Completed July 5, 1990

CONTRACT AWARD: Completed February 19, 1990

CONTRACT CHANGES: Change Order 1 to Contractor August 28, 1992

ENGINEERING STATUS: 90 Percent Complete and On Schedule

FABRICATION STATUS: Due December 1992 through December 1994

DELIVERY STATUS: Due June 1994 through December 1994

SIGNIFICANT COMMENTS: The equipment replicates the SEC-1 equipment, except for specific changes made for SEC-2 including low - NO_x burners and over-fire air ducts. These and other miscellaneous changes account for the engineering work currently being conducted.

EQUIPMENT: Post Combustion NO_x Reduction System (SCR)

CONTRACTOR: Noell, Inc.

BID ISSUE: Completed May 20, 1992

CONTRACT AWARD: Completed August 11, 1992

CONTRACT CHANGES: None

ENGINEERING STATUS: Due to Start September 1, 1992

FABRICATION STATUS: Due August 1993 through November 1994

DELIVERY STATUS: Due April 1994 through June 1995

SIGNIFICANT COMMENTS: Contract documents are being conformed and will be issued for agency information when complete.

EQUIPMENT: Flue Gas Particulate Removal Equipment
(Electrostatic Precipitator)

CONTRACTOR: Wheelabrator-Frye, Air Pollution Control Division

BID ISSUE: Completed August 24, 1990

CONTRACT AWARD: Completed April 16, 1991

CONTRACT CHANGES: None

ENGINEERING STATUS: 85 Percent Complete and On Schedule

FABRICATION STATUS: Due August 1993 through January 1995

DELIVERY STATUS: Due April 1994 through June 1995

SIGNIFICANT COMMENTS: The equipment replicates the SEC-1 equipment with insignificant change in design.

EQUIPMENT: Flue Gas Scrubber

CONTRACTOR: ABB Environmental Systems

BID ISSUE: Completed October 8, 1990

CONTRACT AWARD: Completed April 16, 1991

CONTRACT CHANGES: Change Order 1 to Contractor June 19, 1992

ENGINEERING STATUS: 90 Percent Complete and On Schedule

FABRICATION STATUS: Due August 1993 through December 1994

DELIVERY STATUS: Due March 1994 through June 1995

SIGNIFICANT COMMENTS: The equipment replicates the SEC-1 equipment except for modifications to achieve higher removal efficiency.

EQUIPMENT: Chimney

CONTRACTOR: Pullman Power Products

BID ISSUE: Completed August 10, 1990

CONTRACT AWARD: Completed March 12, 1991

CONTRACT CHANGES: Change Order 1 to Contractor January 15, 1992

ENGINEERING STATUS: 80 Percent Complete and On Schedule

ERECTION STATUS: Due April 1994 through December 1995

SIGNIFICANT COMMENTS: The equipment replicates the SEC-1 design.

EQUIPMENT: Fly Ash Handling System

CONTRACTOR: United Conveyor Corporation

BID ISSUE: Completed September 28, 1990

CONTRACT AWARD: Completed March 12, 1991

CONTRACT CHANGES: None

ENGINEERING STATUS: 80 Percent Complete and On Schedule

FABRICATION STATUS: Due June 1993 through May 1994

DELIVERY STATUS: Due June 1994 through August 1994

SIGNIFICANT COMMENTS: None

EQUIPMENT: Dust Collectors (Bulk Materials Handling)

CONTRACTOR: Roberts & Schaefer Company

BID ISSUE: Completed December 10, 1991

CONTRACT AWARD: Completed April 8, 1992

CONTRACT CHANGES: Change Order 1 to Contractor August 28, 1992

ENGINEERING STATUS: 70 Percent Complete and On Schedule

FABRICATION STATUS: Due August 1993 through August 1994

DELIVERY STATUS: Due September 1994

SIGNIFICANT COMMENTS: Contract change is not related to the dust collector scope of supply.

CONVERSION SYSTEMS, INC.
200 Welsh Road, Horsham, PA 19044
(215) 784-0990 Fax: (215) 784-0970

336 406 7512

June 15, 1992

Mr. Willard Hanks
Florida Dept. of Environmental Regulations
Twin Towers of Office Building
2600 Blair Stone Road
Tallahassee, FL 32339-2400

Dear Mr. Hanks:

In response to your letter of June 4, it should be noted that the aggregate material produced at the OUC site will be made from stabilized FGD wastes and cured in the combustion waste storage area at the site. After it has hardened in place, it will be quarried, crushed and screened to saleable aggregate sizes with minimal fines generation. Fines generated are contained within the system and recycled.

Answer to questions in letter:

1. FGD stabilized materials produce leachate, which when analyzed for EPA TCLP parameters for metals, is classified as non-hazardous. The general chemical composition of FGD by-product material is as follows:

   Calcium Sulfate, Calcium Sulfites.....50%
   Fly Ash (Alumina, Silica, Trace Metals).....30%
   Lime (Calcium Oxide).....5%
   Water.....15%

   TCLP data on the material is attached.

2. The material will be excavated with a rubber-tired loader, or other heavy equipment, transported to the crusher unit either in the loader itself, or by dump trailers. Due to the 15% moisture in this material, there should be little or no fugitive emissions from this activity. A water spray will be available to eliminate any emissions caused by the equipment movement (loader and trucks) and during the transfer of the material from the loader to the truck or to the crusher feed hopper. Opacity shall never exceed 20% during the course of this operation.

3. See the enclosed drawing of the feed bin, crusher, conveyor and shaker screen system with the shroud covers and water spray head location identified.

4. As mentioned above in the response to questions #2, a water spray system has been installed at the site with water disbursement nozzles at all the transfer chutes of the crusher, screen, and belt conveyor transfer points. Enclosed chutes have been installed at points where the fines material is transferred and emissions will be contained. Covers will be placed over screen areas. Normal opacity should range from 10 - 15% during the course of operation, and peak opacity levels should never exceed 20%.

5. Due to the large particle size of the aggregate product manufactured, the product does not lend itself toward generating fugitive emissions while stockpiled. However, all product stacking conveyors will have water spray heads emitting a water spray at the discharge of each conveyor to control fugitive emissions as required as material is deposited on the pile. A water spray system is also available for wetting the pile as required. Opacity from the piles will be less than 5%.

   A drop chute is attached to one conveyor to contain the discharge for ease of wetting before stockpiling. This conveyor can be height adjusted to maintain the drop chute's effectiveness.

6. The material in the stockpiles will be removed with a rubber-tired loader and transferred to covered dump trailers for shipment. Again, water sprays will be utilized to prevent fugitive emissions. Opacity will never exceed 20% during truck loading operations.

7. As mentioned above, a water spray system has been installed to reduce emissions. A drop chute was also installed at one of the stockpile conveyor discharge points. Due to the installation of these control systems, which are consistent with the State of Florida's Air Pollution Rules for this type of application, we expect to properly control any emissions from this System. As this is a system comprised of portable equipment, the installation of baghouses to control emissions was investigated and determined to be not practical.

Sincerely,

Howard A. Wasserman
Director of Government and
Environmental Affairs

HAW:kaw

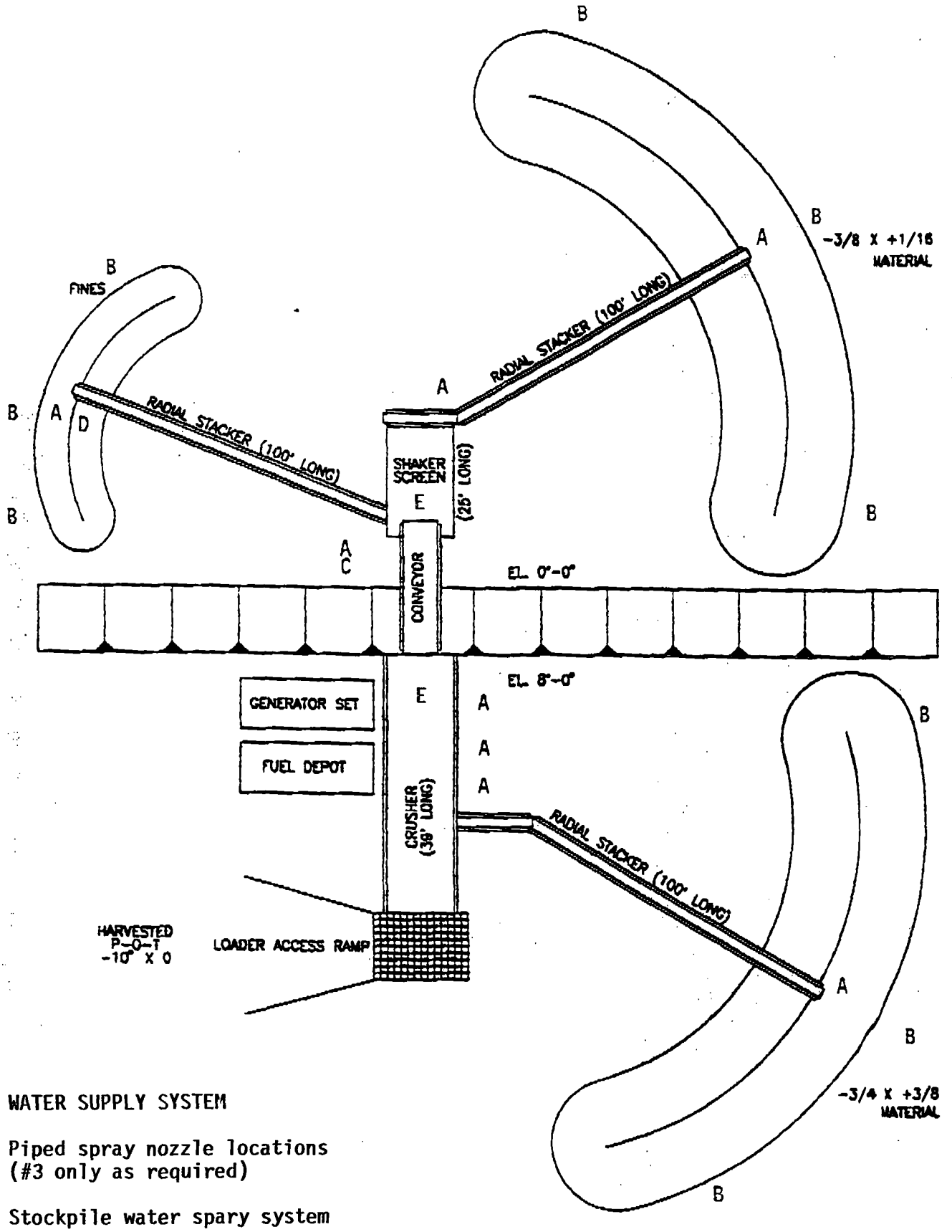
cc: W. Hanks
B. Green

CHEMICAL ANALYSIS SUMMARY REPORT

POZ-O-LITE™ COMPOSITION

EPA SW-846 METHOD 1311 (TCLP)

ANALYTE	RANGE (mg/l)
Arsenic	<0.05 - 0.12
Barium	<1
Cadmium	0.03 - 0.11
Chromium	<0.05 - 0.94
Lead	<0.05 - 0.16
Mercury	<0.002
Selenium	<0.01 - 0.06
Silver	<0.05



WATER SUPPLY SYSTEM

A - Piped spray nozzle locations
(#3 only as required)

B - Stockpile water spary system

C - Enclosed Chutes

D - Drop Chute

E - Cover

ORLANDO AGGREGATE EQUIPMENT LAYOUT

Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

June 30, 1992

Ms. Jewell Harper, Chief
Air Enforcement Branch
U.S. Environmental Protection Agency
Region IV
345 Courtland Street, N.E.
Atlanta, Georgia 30365

Dear Ms. Harper:

Re: Orlando Utilities Commission Center, PSD-FL-084

The Department has received a request from Orlando Utilities Commission to allow Conversion System, Inc. to install a stabilized FGD sludge material handling system at the referenced plant. A copy of the file for this request is attached. The Department plans to process this request as an amendment to the Power Plant Certification PA 81-14 for this plant.

Your agency issued federal construction permit PSD-FL-084 for this plant. This permit may also need to be amended to authorize the operation of the proposed material handling facility. Please coordinate any amendments to this permit with Willard Hanks, the review engineer assigned this project. He can be reached at (904) 488-1344.

Sincerely,

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

CHF/wh

Enclosure: File

cc: Greg DeMuth, OUC
Howard Wasserman, Conversion Systems, Inc.
Chuck Collins, CFD
Buck Oven, PPC

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee

To _____ Location _____

To _____ Location _____

To _____ Location _____

From _____ Date _____

Interoffice Memorandum

DRAFT

To: Buck Oven

Thru: Preston Lewis

From: Willard Hanks

Date: June 29, 1992

Subject: OUC Stanton Energy Center PA 81-14
Module 8024

The Bureau of Air Regulation has determined that the proposed stabilized FGD sludge handling System is a potential source of unconfined particulate matter emissions. The F.A.C. Rule 17-2, Air Pollution, requires reasonable precautions be used to minimize unconfined emissions. The applicant has agreed to meet the visible emission limits in the new source performance standards for nonmetallic mineral processing plants by the use of water sprays, enclosed chutes, and equipment covers. The Bureau finds these limits acceptable and recommends that the following conditions be incorporated in the amendment to the Power Plant Certification for this facility.

1. The plant shall not process more than 100 TPH stabilized FGD (flue gas desulfurization) sludge.

2. The plant may operate 12 hours per day for 7 days per week and 52 weeks per year.

3. The plant shall be equipped with the air pollution control equipment listed in the following table. Visible emissions, 6 minute average percent opacity as determined by EPA Reference Method 9 described in 40 CFR 60, Appendix A (July 1, 1992), for each operation shall not exceed the limits listed.

OPERATION	AIR POLLUTION CONTROL	% OPACITY
Evacuation and transporting to trucks or feed bin	Water spray as necessary	10
Crusher	Cover and water sprays	15

OPERATION	AIR POLLUTION CONTROL	% OPACITY
Crusher to screen conveyer transfer points	Water sprays and enclosed chutes.	10
Shaker screen	Cover	15
Radial Stacker-fines	Water sprays, enclosed chutes, and adjustable drop chute	15
Radial stackers-products	Water Sprays	15
Storage piles	Water spray system	5
Loading/shipping product	Water sprays and covered trucks leaving plant	15

4. If the plant is unable to comply with the visible emission standard for any operation listed in the above table, the permittee shall install additional air pollution control equipment needed to meet the standard.

5. The visible emissions tests shall be conducted within 30 days of commercial operation of the facility and the results submitted to the Department's Central Florida District office.

6. The electrical power generator shall not use more than 7 GPH diesel fuel. The power motor for the crusher shall not use more than 6 GPH diesel fuel. The diesel fuel used by these units shall not contain more than 0.3% sulfur.

WH/kt

Florida Department of Environmental Regulation

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

Lawton Chiles, Governor

Carol M. Browner, Secretary

June 8, 1992

Mr. Greg A. DeMuth, Director
Environmental Division
Orlando Utilities Commission
P.O. Box 3193
Orlando, Florida 32802

Re: Stanton Energy Center PA 81-14
Proposed FGD Crusher

Dear Mr. DeMuth:

The recent application for a material handling system for FGD material has been reviewed by the Bureau of Air Regulation. The Bureaus comments are attached for your consideration and response. If you have questions on the comments, you may wish to talk to Willard Hanks at (904) 488-1344.

Sincerely,

Hamilton S. Oven

Hamilton S. Oven, P.E.
Administator, Siting
Coordination Office

Encl:

cc: Chuck Collins
Preston Lewis

Department of Environmental Regulation

Routing and Transmittal Slip

To: (Name, Office, Location)

1. PRESTON LEWIS 3RD FLOOR
2.
3.
4.

Remarks:

RECEIVED
JUN 09 1992
Division of Air
Resources Management

From: BUCK OVEN

Date 6/9/92

Phone 7-0472

ORLANDO UTILITIES COMMISSION
500 SOUTH ORANGE AVENUE • P. O. BOX 3193 • ORLANDO, FLORIDA 32802 • 407/423-9100

January 24, 1992

Post-it™ brand fax transmittal memo 7671	# of pages ▸ 2
To Buck Oven	From Ken Oven
Co.	Co.
Dept.	Phone #
Fax #	Fax # 561-6834

Mr. Brian Beals
United States Environmental
Protection Agency
Region IV
345 Courtland Street, N.E.
Atlanta, GA 30365

Re: Orlando Utilities Commission,
Stanton Energy Center Unit 2
PSD-FL-084

Dear Mr. Beals:

Thank you for your courtesies in arranging our most constructive telephone conference yesterday. Throughout this entire PSD permitting process for Orlando Utilities Commission Stanton 2, you and your staff have been most cooperative.

As we discussed in the referenced conference call, we will not submit a petition of appeal to the Administrator to review permit No. PSD-FL-084 expressly because of your commitment to support a modification of the ammonia slip emission limitation in Condition 16 from a limit of 5 ppmvw to 30 ppmvw. As we all agree, this modification allows Orlando Utilities Commission the flexibility to choose nitrogen oxide control technologies which were contemplated by Condition 17. The current limit of 5 ppmvw for ammonia emissions would allow only SCR technologies to be used.

Condition II/I.A.1.f. in the Florida Supplemental Site Certification contains a limitation of 0.033 lb/MMBtu H_2SO_4 emissions. In order to allow OUC to use the intended SCR technology successfully, OUC will need to modify this limit to 0.066 lb/MMBtu.

OUC and EPA both agree that the EPA has no jurisdiction over the state permit and that the EPA will

not object when OUC petitions for an amendment to this condition.

Thank you again for your cooperation.

Very truly yours,

Thomas B. Tart

Thomas B. Tart

TBT/kdh
cc: Gregg Worley
Nancy Pommella, Attorney-at-Law
H. S. Oven
Richard Donelan, Attorney-at-Law